

Environmental Regulations & Best Management Practices

Mechanical Repair Operations in the Capital Regional District



This manual is published by the Regional Source Control Program.
For more information please call 250.360.3256 or
visit the CRD website at www.crd.bc.ca

**ENVIRONMENTAL REGULATIONS
&
BEST MANAGEMENT PRACTICES**

**Mechanical Repair Operations in the
Capital Regional District**

This manual is published by the Regional Source Control Program
For more information please call (250) 360-3256 or
visit the CRD web site at www.crd.bc.ca

Regional Source Control Program
625 Fisgard Street, PO Box 1000 Victoria, BC V8W 2S6

January 2015



TABLE OF CONTENTS

| | | |
|---------|---------------------------------------------------------------------|----|
| 1.0 | INTRODUCTION | 1 |
| 1.1 | Why is Effluent from a Mechanical Repair Operation a Concern? | 1 |
| 1.2 | Summary of Regulatory Requirements..... | 2 |
| 1.2.1 | Federal Government..... | 2 |
| 1.2.2 | Provincial Government..... | 2 |
| 1.2.2.1 | BC Regulations..... | 2 |
| 1.2.2.2 | Workers' Compensation Board of British Columbia..... | 3 |
| 1.2.3 | Regional Government | 3 |
| 1.2.3.1 | CRD Sewer Use Bylaw | 3 |
| 1.2.3.2 | Other Regional or Municipal Regulations..... | 4 |
| 2.0 | MANDATORY REQUIREMENTS | 5 |
| 2.1 | Application..... | 5 |
| 2.2 | Discharge Regulations | 6 |
| 2.2.1 | Installation of Treatment Works – Oil-Water Separators | 7 |
| 2.2.2 | Inspection and Maintenance of Treatment Works..... | 8 |
| 2.3 | Storage and Containment..... | 8 |
| 2.4 | Spill Response..... | 9 |
| 2.5 | Record Keeping and Retention | 9 |
| 3.0 | BEST MANAGEMENT PRACTICES | 10 |
| 3.1 | Employee Education..... | 10 |
| 3.2 | Spills..... | 11 |
| 3.3 | Antifreeze | 11 |
| 3.4 | Oil and Oil Filters | 11 |
| 3.5 | Spent Lead-Acid Batteries | 12 |
| 3.6 | Brake Fluid and Carburetor Cleaner | 12 |
| 3.7 | Parts Cleaning and Degreasing | 12 |
| 3.8 | Engine Cleaning | 13 |
| 3.9 | Radiator Repair | 13 |
| 3.10 | Used Tires and Other Solid Waste | 13 |
| 3.11 | Refrigerants..... | 13 |
| 3.12 | Painting and Paint Removal..... | 13 |
| 3.13 | Fuelling Stations..... | 14 |
| 3.14 | The Shop Area..... | 15 |
| 3.15 | Storage..... | 15 |

| | | |
|------|----------------------------------------------|----|
| 3.16 | General Maintenance | 15 |
| 3.17 | Vehicle Washing Area..... | 16 |
| 3.18 | Non-Hazardous Office Wastes | 16 |
| 4.0 | CODE OF PRACTICE IMPLEMENTATION PLAN | 17 |
| 4.1 | Inspections, Monitoring and Enforcement..... | 17 |
| 5.0 | FOR MORE INFORMATION | 18 |
| 6.0 | GLOSSARY OF TERMS..... | 20 |

1.0 INTRODUCTION

The Capital Regional District (CRD) Regional Source Control program has identified the mechanical repair industry as a significant contributor of contaminants to the region's sanitary sewer system. There are close to 600 businesses in the CRD with mechanical service and repair as their primary business. Other businesses have mechanical service and repair as an ancillary activity. The automotive and mechanical repair industry offers diverse services, including fuelling stations, mechanical/collision repair, towing, recycling and car washing. Many of these activities involve handling and managing a wide variety of materials and wastes that could end up in the region's sanitary sewer system or in ground water and soils around septic systems.

The CRD Regional Source Control program has prepared this document in cooperation with representatives from the Canadian Petroleum Products Institute, Petro-Canada, Imperial Oil, Shell Canada, the Insurance Corporation of British Columbia and the British Columbia Automobile Association. It serves as a guide to the environmental regulations that apply to mechanical repair operations within the regional district. It also provides information on best management practices and services to assist operations in meeting these regulations and improving their overall environmental performance.

1.1 Why is Effluent from a Mechanical Repair Operation a Concern?

Large industrial generators of contaminants or "point sources" must apply for and obtain a site-specific waste discharge permit in order to discharge wastes to the sanitary sewer. Smaller businesses, including the majority of those in the mechanical repair industry, are grouped into similar business sectors and are referred to as "area sources" of contamination. Each may contribute small quantities of contaminants on an individual basis, but collectively are a signature contributor of contaminants to the sewer system.

Wastewater from mechanical repair operations can contain quantities of solids, metals, oils and grease and chlorinated solvents that exceed levels allowed under the CRD's sewer use bylaw. Some of these contaminants can cause structural damage to the sewer system (through plugging or corrosion), while others may be highly toxic even in very low concentrations. Proper management of these materials is paramount for environmental protection, human health and structural integrity of the sewer or septic system.

1.2 Summary of Regulatory Requirements

1.2.1 Federal Government

The Canadian government has no specific requirements for the management of mechanical wastes. However, regulations adopted under federal enactments such as the Transportation of Dangerous Goods Act contain provisions that apply to the general transportation and handling of hazardous materials. The Canadian Environmental Protection Act gives Environment Canada the power to regulate substances that have been declared toxic as defined in the Act. Where import or export of hazardous waste occurs, the Export and Import of Hazardous Waste Regulations under the Canadian Environmental Protection Act would apply. For more information regarding the above requirements, see Section 5.

1.2.2 Provincial Government

1.2.2.1 BC Regulations

The *BC Spill Reporting Regulation* under the Environmental Management Act requires reporting of spills of any materials that could cause pollution. The regulation identifies the chemicals and the minimum spill quantities that must be reported to the Provincial Emergency Program (PEP).

The *BC Fire Code* specifies storage, handling and identification requirements for flammable and combustible materials, including solvents. This regulation also contains requirements for spill containment and clean-up.

The *BC Plumbing Code* specifies standards for the design and installation of plumbing systems.

The *Occupational Health and Safety Regulation* contain requirements for Workplace Hazardous Materials Information System (WHMIS) training, including chemical labeling, storage and record keeping.

The BC Ministry of Environment regulates the generation, storage, treatment, recycling and disposal of hazardous wastes to the environment through the *Hazardous Waste Regulation* (BCHWR) under the *BC Environmental Management Act*. Section 39 of the BCHWR restricts the deposit or discharge of hazardous waste into any waste disposal system operated by a

municipality or other public authority. Such waste disposal systems include:

- sanitary sewers,
- storm sewers or watercourses,
- septage disposal facilities, and
- solid waste landfills.

1.2.2.2 **Workers' Compensation Board of British Columbia**

The Workers Compensation Act contains provisions that apply to the general transportation and handling of hazardous materials. The requirements of the Occupational Health and Safety Regulation come under the authority of the Workers Compensation Act and Workplace Act. The Workers' Compensation Board of British Columbia (WCB) regulates health and safety issues such as chemical exposure, indoor air quality and biohazards under the provincial WorkSafeBC Regulations (WCBR). For more information regarding the WCBR, see Section 5.

1.2.3 **Regional Government**

1.2.3.1 **CRD Sewer Use Bylaw**

Under the provincial Environment Management Act, the CRD is empowered to regulate the discharge of waste into its own sewers and into sanitary sewers owned and operated by member municipalities.

The CRD's Regional Source Control program is one of seven liquid waste control programs. On August 10 1994, the Board of the CRD passed Bylaw No. 2231, a Bylaw to Regulate the Discharge of Waste into Sewers Connected to A Sewage Facility Operated by the CRD. This bylaw has been updated as CRD Sewer Use Bylaw 2922, Bylaw No. 5, 2001, and is generally referred to as the sewer use bylaw. The main intentions of the sewer use bylaw are to protect:

- the marine-receiving environment,
- public health and safety,
- sewage works,
- wastewater treatment processes, and
- biosolids quality.

The bylaw also ensures:

- consistent requirements throughout the CRD,
- fair and balanced use of the CRD's facilities, and
- promotion of responsible waste management practices.

1.2.3.2 Other Regional or Municipal Regulations

Other regulations that may apply to the handling and disposal of wastes from a mechanical repair operation within the CRD include:

- Hartland Landfill Tipping Fee and Regulation Bylaw (CRD), which covers the disposal of wastes at the CRD's Hartland Road sanitary landfill
- CRD Septage Disposal Bylaw, which deals with the discharge of septic tank contents into septage disposal facilities,
- CRD Onsite Sewage System Maintenance Bylaw, 2007, which regulates the maintenance of onsite sewage systems to protect human health and environment.
- CRD Cross Connection Control Bylaw No.1, 2008, which regulates the installation and maintenance of backflow devices to protect the public drinking water system
- Municipal storm sewer bylaws, which regulate the discharge of wastes into municipal stormdrains and watercourses
- Municipal plumbing bylaws, which specifies requirements for installation and maintenance of plumbing and drainage equipment.

2.0 MANDATORY REQUIREMENTS

In many cases, companies require a waste discharge permit to discharge industrial or commercial wastes into the sewers. However, the CRD's sewer use bylaw also provides for the discharge of certain types of waste under industry-specific Codes of Practice.

A code of practice is a regulatory document, developed by the District, which contains mandatory sanitary sewer discharge standards for specific industrial, institutional, or commercial sectors. Codes of practice set out minimum effluent treatment, equipment maintenance and record-keeping requirements for various sector operations. A business or organization operating under an approved code of practice does not require a waste discharge permit under the CRD sewer use bylaw.

This section summarizes the regulatory requirements contained in the CRD sewer use bylaw that apply to mechanical repair operations. It is intended for information and guidance purposes only. If there is any discrepancy between this information and the bylaw, the bylaw will take precedence.

The CRD has determined that wastewater from mechanical repair facilities may contain restricted waste as defined in the bylaw. Facilities that discharge restricted waste must either operate under a waste discharge permit, a code of practice or an authorization.

Mechanical repair operations that follow the Code of Practice for Automotive Repair Operations (Schedule 'M' of the sewer use bylaw) are authorized to discharge restricted waste into a sanitary sewer without a waste discharge permit. The CRD reserves the right, if deemed necessary by the sewage control manager, to require any mechanical repair operation to obtain a waste discharge permit. All other terms and conditions of the sewer use bylaw apply to the discharge to the sanitary sewer.

2.1 Application

A mechanical repair operation is defined as any commercial business that involves work or service for vehicles including but not limited to:

- collision repair shops,
- mechanical repair shops,
- service stations,

- engine washing activities,
- oil change operations,
- auto detailing,
- vehicle dealerships,
- vehicle maintenance facilities,
- vehicle recycling operations,
- radiator repair shops,
- all engine repair and maintenance (e.g. gas power generators, boats and aircraft, motorcycles and motor-scooters) and
- towing businesses

Anyone working in the mechanical repair business and institutions must follow this code of practice if they want to use the sewer connected to a sewage facility system for wastewater other than from toilets and washrooms.

2.2 Discharge Regulations

Mechanical repair operations must not discharge into the sewer non-domestic waste that contains:

- prohibited waste – anything that could cause a fire or explosion, block the sewers, cause odours, or corrode or damage the sewer system
- hazardous waste – anything governed by the BC Hazardous waste Regulation such as waste paint, flammable materials, acids and waste antifreeze
- uncontaminated water in quantities greater than 2 cubic meters per day (Uncontaminated water takes up valuable sewer line capacity that could be used to handle wastewater that needs treatment.)
- restricted waste as defined in the bylaw (e.g., waste containing more than 50 mg/L of iron, 0.2 mg/L of toluene and 350 mg/L of total suspended solids)
- oil and grease (hydrocarbons) in a concentration exceeding 50 mg/L (This level is consistent with the expected performance of a properly operated and maintained three-chamber oil-water separator with a two-hour retention time.)
- wastewater from engine cleaning
- trucked liquid waste
- wastewater from oily rag washing or cleaning
- rinse water from parts that have been cleaned in solvent
- water that accumulates in any fuel storage tank (This water should not be pumped into a sanitary sewer, storm sewer, watercourse or septic system.)

- contaminated groundwater as defined in the BC Contaminated Sites Regulation (Treated groundwater needs a permit or authorization to dispose of treated groundwater.)
- Stormwater must not be discharged into a sanitary sewer unless it originates from a fuelling station (Most are covered and incidental stormwater from these areas may be discharged into the sanitary sewer. A proper spill response plan -- see section 2.5 -- must be posted for this area due to the potential for the extreme hazard of fuel entering the sewer system.)
- above ground storage tank containment areas (These areas must not have drains that connect directly to the sewer system. See Section 2.4.)

2.2.1 Installation of Treatment Works – Oil-Water Separators

All mechanical repair operations that discharge non-domestic wastewater into a sewer must have oil-water separator(s) installed and all non-domestic wastewater from the operation must flow into the separator(s). These treatment works must be easily accessible and have sampling ports available for sampling, inspection and maintenance.

The following are key considerations for installation of treatment works:

- The oil-water separator must have a minimum volume of two cubic meters. It should provide a minimum retention time of two hours based on the maximum expected flow, or be designed to ensure that effluent at the point of discharge does not contain mineral oil and grease in a concentration exceeding 50 mg/L.
- For ease of inspection the oil-water separators must have sampling ports installed. The ports shall be located either at the outlet of the oil-water separator or downstream of the separator, but upstream of any discharge of other wastes.
- The sampling ports shall be the same diameter as the oil-water separator outlet pipe and should open in a direction at right angles to, and vertically above, the flow in the sewer pipe.

All waste from washrooms (e.g. toilets, urinals, showers and sinks) must be diverted so that it does not flow through the treatment works.

2.2.2 Inspection and Maintenance of Treatment Works

Inspection and maintenance efforts must adhere to the following:

- The sampling ports must be easily accessible at all times.
- The treatment works must be inspected once every three months. The sludge at the bottom must be measured as well as the floating oils on top.
- Settled solids in the oil-water separator(s) must not be left to accumulate in excess of the lesser of 15 cm or 25 percent of the wetted height of the oil-water separator.
- Floating oil and grease in the oil-water separator(s) must not be left to accumulate in excess of the lesser of 5 cm or 5 percent of the wetted height of the oil-water separator(s). Due to the volatile nature of some oils, solvents and fuels, these materials should not be left to accumulate as they can cause health and safety concerns. (Also, the efficiency of the interceptor decreases with increasing levels of floating material.)
- The treatment works must be cleaned out within seven days if, during inspection, the measured amounts exceed the criteria noted in either of the two points above.
- The treatment works must be cleaned out every twelve months regardless of the amount of accumulated oil or solids. This will ensure that the interceptor receives at least a minimum level of maintenance on a regular basis.
- When the oil-water separator is cleaned, the oil and grease or solids must not be disposed of into a sewer or in any place where it may be introduced to a storm sewer or a watercourse.
- Hot water, detergents, solvents or any other chemical agents must not be used to flush oil through the oil-water separator.

2.3 Storage and Containment

The operator must ensure that the following materials are stored using spill containment:

- used acid-filled batteries,
- spent solvents, used antifreeze, used oils, used oil filters, used brake fluid, used transmission fluid and other hazardous waste materials,
- above ground fuel storage tanks,
- solvents, antifreeze, oil, or other hazardous materials stored at floor level in containers over 50 litres and not contained in permanent engineered containers that are protected from vehicle contact.

The containment areas must not be connected directly to a sanitary sewer or storm sewer. Draining or pumping of accumulated stormwater out of any containment area to the treatment works must be supervised at all times.

2.4 Spill Response

All mechanical repair operations must prepare a spill response plan. In addition:

- The spill response plan must be posted in a highly visible location.
- Clean-up equipment and supplies must be kept in stock at all times.
- The operator must clean up any spills immediately.
- After clean-up of a spill, the oil-water separator must be inspected and cleaned if necessary before resuming wastewater discharge from the operation.

2.5 Record Keeping and Retention

The operator of the mechanical repair operation must keep written records to show due diligence regarding site activities and to demonstrate that requirements of the code of practice have been met.

Design calculations and drawings for the oil-water separator(s) must be available for inspection. These records must be retained for the entire time that the mechanical repair operation is in business.

Accurate and up-to-date records must be kept of the treatment works inspections and maintenance procedures for a period of two years and must be available for viewing. This includes:

- dates of inspection or maintenance,
- description of inspection or maintenance, including:
 - measured depth of settled material,
 - measured depth of floating material,
 - the type and quantity of material removed from the oil-water separator, and
 - date of material transferred to each company or facility.

The operator must also keep records of the name of each disposal or recycling company they engage, the type and quantities of disposed or recycled material, and the dates of these transactions for a period of two years.

3.0 BEST MANAGEMENT PRACTICES

Best management practices (BMP's) are activities developed to help operators reduce the amount of contaminants discharged to the environment, to comply with regulations and to improve overall waste management practices. BMP's are based on the pollution Prevention (P2) Principle that emphasizes reducing or eliminating pollutants and toxic materials at their source rather than removing them from a mixed waste stream. Preference should be given to practices highest in the following P2 hierarchy:

- Avoidance, elimination or substitution of polluting products or materials
- Reduction in the use of polluting products or materials
- Elimination and reduction of the generation of polluting by-products
- Reuse and recycling of polluting by-products
- Energy recovery from polluting by-products
- Treatment or containment of polluting residual by-products
- Remediation of contaminated sites.

The following BMP's have been developed to help mechanical repair operations decrease the amounts of contaminants entering a sewer system or septic system, comply with regulations, improve their operations and save money through applications of pollution prevention principles. Operators are also encouraged to influence suppliers by requesting and purchasing less-toxic alternative cleaning products, and buying from suppliers who accept materials and containers back for recycling.

3.1 Employee Education

- Ensure employees are trained whenever new equipment is installed or new procedures are implemented. They should be familiar with the hazards associated with the material they are using and be aware of potential sources of contamination.
- Make sure employees are aware of the spill response plan and properly trained to carry it out.
- Maintain awareness of best available technology, as many companies now consider environmental issues when designing and manufacturing their products.
- Keep records of all employee-training.

3.2 Spills

- Make sure the spill response plan's procedures for clean-up (Section 2.5) are followed.
- Designate two containers: one for partially-saturated rags to be reused and one for saturated rags to be disposed. Wring out saturated rags (recycling the collected material if possible) before disposal. Used rags may be considered a hazardous waste, so do not throw them into the garbage. Have a waste disposal company dispose of the used rags, floor sweepings, absorbent pads and towels. It is not recommended that used rags be laundered, however if laundering is done, use a professional laundry facility that has appropriate treatment works.

3.3 Antifreeze

- Handle antifreeze containing ethylene glycol with care. Ethylene glycol is a water-soluble organic compound with a high biological oxygen demand (BOD) and is potentially toxic to mammals and aquatic organisms at relatively low concentrations.
- Used (or waste) antifreeze contains high levels of toxic metals that may be considered hazardous waste.
- Make sure that waste antifreeze is properly contained and labelled in case of spills or leaks.
- Do not use antifreeze or waste-antifreeze as a de-icing agent.
- If possible, use an antifreeze recycling unit that simultaneously filters fluid, flushes vehicle cooling systems and returns the antifreeze to the equipment. This will reduce both the purchase and disposal costs associated with antifreeze.

3.4 Oil and Oil Filters

- Properly dispose of waste oil and oil filters containing greater than 3 percent oil (by weight) as they are considered hazardous wastes. Mechanical repair waste oil includes crankcase, gear and metalworking oil, and transmission and hydraulic fluid. Contact the CRD Hotline or visit myrecyclopedia.ca for disposal and recycling options.
- Puncture oil filters and allow them to drain for 24 hours prior to recycling. To avoid injury, only use a puncture tool designed for this task. Store used filters in a separate labelled container.
- Keep waste oil in a separate, marked, watertight, rodent-proof container in a secure place prior to recycling. Make sure tanks or drums have proper containment in case of spills or leaks. See section 2.4 and 2.5. If the storage area is exposed to traffic, ensure that it is protected from vehicle contact as required by the Code of Practice, section 3.1(d).

3.5 Spent Lead-Acid Batteries

- Replace refillable lead-acid batteries with sealed lead-acid batteries.
- Recycle all lead-acid batteries. Store them upright in a covered place away from drains. Avoid storing in freezing conditions. Check routinely for leaks and cracks. Acid resistant tubs should be used. Keep an acid spill response kit nearby and avoid long-term storage.

3.6 Brake Fluid and Carburetor Cleaner

- Collect used brake fluid in a separate, marked, closed container and dispose of it with assistance from a waste disposal company.
- Never add brake fluid to your used oil container as it is not crude-oil based.
- Collect and store used carburetor cleaner separate from other waste oils in a suitable container or system. This substance is a corrosive liquid and can contain chlorinated compounds.

3.7 Parts Cleaning and Degreasing

- If your shop is using hazardous solvents in your parts washing system, consider replacing your solvents or degreaser with a non-hazardous substitute. Spent solvents are one of the largest hazardous wastes, by volume, produced by the mechanical repair industry. Spent solvents are dangerous to workers because they can be toxic and they can emit harmful fumes.
- When not in use, cover all solvent cleaning tanks and close their drain plugs. Solvent losses due to inappropriate usage, equipment leaks, spills and evaporation can be up to 40 percent of total solvent usage.
- Reduce the need to dispose of or replace dirty solvent by increasing the degree of cleaning efficiency. Pre-clean parts in a container with a squeegee, rag or wire brush before soaking them in a parts washer.
- Do not change the solvent until it is necessary to do so. Consider having two tanks – one with old solvent to pre-soak and remove most of the dirt and grease and one with new solvent. This will extend the life of the solvent bath.
- Avoid chlorinated solvents and other solvents with a specific gravity greater than 1.0 (check Materials Safety Data Sheet (MSDS) for details). Aqueous or alkaline cleaners may be substituted for solvent-based cleaners in some applications, particularly for non-aluminum parts.
- Use spray cleaners only when parts cannot be removed from a vehicle and the placement of a cleaning sink or a pan under the part to catch drips is not possible.

- Consider replacing the solvent sink with an aqueous-based parts washing system. Two methods are immersion with agitation (ultrasonic or mechanical) and pressurized jet-spray washers using heat and a caustic detergent to physically and chemically remove organic and inorganic contaminants.

3.8 Engine Cleaning

- Collect engine cleaning wastewater for reuse, recycling or for treatment and disposal as some engine cleaning procedures utilize toxic solvents to remove oil and dirt.
- Do not allow the wash area to drain to sanitary or storm sewers or a septic system.
- Consider steam cleaning using small amounts of detergent as an alternative method for engine cleaning.

3.9 Radiator Repair

- Place boil tanks for rinsing cleaned radiators in a secure area with spill containment.
- Use the solution in the boil tanks as long as possible. When it can no longer be used, engage a waste disposal company to dispose of it as hazardous waste.

3.10 Used Tires and Other Solid Waste

- Store as few used tires on site as possible as they pose a fire hazard.
- Store materials such as scrap metal and old machine parts under a roof or tarpaulin to protect them from the elements and to prevent possible contaminated runoff.

3.11 Refrigerants

- Have certified technicians recover refrigerants for proper disposal or recycling.
- Do not vent or evaporate refrigerants.
- Recycle spent filters, condensers, evaporators and compressors for their metal content.

3.12 Painting and Paint Removal

- Facilities with a paint shop should consider investing in a dual-component paint system that provides control of materials from container to application. These systems reduce hazardous waste production, the amount of cleanup solvents used and the potential for spills. These systems provide proper mixing and precise generation of paint – they mix

on demand (as the gun is triggered) which results in significant reduction of wasted materials.

- Consider the use of latex and water-based enamels as substitutes for oil-based paints. A wide range of these is available from paint suppliers and hardware stores. Suppliers also offer a variety of water-based caustic cleaners that can be used as substitutes for petroleum solvent thinners.
- Use an automatic paint gun washer to clean conventional air spray, High Volume Low Pressure (HVLP), electrostatic, airless or air-assisted paint guns. The solvent is collected in a reservoir where impurities are filtered out and the solvent can be reused.
- Most unused or leftover paint, including paint in aerosol spray cans, is recyclable. Consult the CRD Hotline or myrecyclopedia.ca for further information. (Section 5.0).
- Use vacuum blasting equipment for paint removal to reduce airborne paint residues and worker exposure to potentially hazardous materials in paint waste. This system uses a dry abrasive blasting process where the blast media and removed coating material (paint, rust) is collected in a vacuum and then separated. The blast media can be reused and the coating materials disposed of under a controlled waste permit at the Hartland landfill.

3.13 Fuelling Stations

- Self-serve stations customers may inadvertently cause small spills – post signs that state “no topping off” and “to report any spills to staff”. Make sure shut-off valves on the nozzles are working properly.
- Provide clearly marked containers for used antifreeze and oil drop-off and ensure that the label reminds people not to mix waste antifreeze or oil with other materials.
- Do not use running water to clean the fuelling area. Use dry methods and/or damp mops.
- Do not allow gas spills to drain into municipal sanitary and storm sewer systems. Equip the sanitary sewer with a shut-off valve and protect the stormwater sewer in case of a large spill. See Section 3.2 for more information on spills.
- When grading the site, do it in a way that prevents run-on of storm water and run-off of spills. A covered fuelling area will prevent rainwater from entering the site. Also, concrete rather than asphalt should be considered, as asphalt absorbs organic contaminants and can be dissolved by some fluids. Over time, this may become a source of stormwater contamination.

3.14 The Shop Area

- Do not dispose of any shop wastes into a storm drain, septic tank, onto the ground or into surface water.
- Place drip pans underneath vehicles and equipment when performing maintenance such as removing parts, unscrewing filters and unclipping hoses. Do not leave drip pans or other open containers lying around.
- Place dirty parts in drip pans instead of on the floor.
- Never hose down spills with water.

3.15 Storage

- All materials should be stored in the proper containers with the correct label in accordance with WHMIS procedures. Up-to-date MSDS should be kept for each product. See Section 5.0 for contact information.
- If your shop towels contain solvents, store them in a double-bottomed drum to allow the solvent to drain so that it can be collected for reuse, recycling or disposal.
- Store materials and wastes indoors or under cover whenever possible to prevent moisture from seeping into the container. The storage areas should be locked and fenced if vandalism is a problem.
- Store flammable and combustible materials in fireproof cabinets.
- Ensure separate storage of incompatible chemicals to prevent cross contamination and chemical reactions.

3.16 General Maintenance

- Repair or replace all substantially cracked or otherwise damaged paved areas that can be contaminated by fluid leaks and spills.
- Inspect and clean all storm drain inlets on site regularly, especially after heavy storms.
- Perform frequent inspections for structural integrity of items such as piping, valves, controls, joints, welds, tanks, roofs, pavement or other areas of potential leaks and spills.
- Use a reputable waste hauler who will dispose of your wastes, shop recyclables and catchbasin and oil/water separator wastes legally. If hazardous waste is dumped illegally, your shop may be held responsible. Contact the CRD Hotline or check myrecyclopedia.ca for hazardous waste arrangement companies.

3.17 Vehicle Washing Area

- If there are vehicle washing activities in your shop, refer to Schedule “N” of the sewer use bylaw and The Guidebook for Environment Regulations and Best Management Practices for Vehicle Wash Operations.

3.18 Non-Hazardous Office Wastes

- Choose products with the least packaging and the highest recyclable material content.
- Recycle waste paper, aluminum cans, newspaper, glass, cardboard, plastic containers and food scraps (compostables).
- If you occupy space in multi-tenant premises, check with the property manager to find out if any recycling programs are already established in the building.
- More information on solid waste reduction and recycling is available from the sources listed in Section 5.

4.0 CODE OF PRACTICE IMPLEMENTATION PLAN

The implementation plan for CRD codes of practice includes the following components:

- education
- inspection
- monitoring
- enforcement
- administration
- review

The Regional Source Control program staff will carry out activities related to each component in partnership with each code sector.

4.1 Inspections, Monitoring and Enforcement

Regional Source Control program staff may carry out inspections, examine records or other documents, and take samples of effluent for analysis as specified under the sewer use bylaw. Compliance sampling may also be conducted at any time on the effluent from operations regulated under a code of practice. Repeat sampling may be necessary if non-compliance with the COP is suspected or high contaminant concentrations are detected in previous samples.

A cooperative, gradually-escalating approach to enforcement will be used for all regional source control codes of practice. This approach is established in an enforcement policy that has been approved by the CRD Board.

Where cooperative efforts to achieve compliance using the enforcement policy have failed warnings and tickets of between \$50 and \$1000 per offence may be issued under the CRD Ticket Information Authorization Bylaw. For more serious or continuing offences, fines up to \$10,000 per offence per day may be issued under the Sewer Use Bylaw.

5.0 FOR MORE INFORMATION

For more information on the Code of Practice for Automotive Repair Operations or CRD sewer use bylaw, please contact the Regional Source Control program at 250-360-3256 or visit the CRD web site at www.crd.bc.ca.

Other helpful sources of information include:

CRD Hotline: 250-360-3030

CRD Online Recycling tool: Myrecyclopedia.ca

Provincial Recycling Hotline: 1-800-667-4321

Report Hazardous Waste or Chemical Spills Provincial Emergency Program (PEP):
1-800-663-3456

Hazardous Waste Transport Licenses, BC Ministry of Environment:
<http://www2.gov.bc.ca/gov/topic.page?id=DCCD19898BE7496992D57B5E23663F30>

WorkSafeBC Occupational Health & Safety Regulation (WorkSafeBC): 1-888-621-7233
www.worksafebc.com

Ministry of Environment, BC Hazardous Waste Regulation: 250-387-3648

Vehicle dismantling & recycling:
<http://www2.gov.bc.ca/gov/topic.page?id=D5578C3EDE434757B95BB4D451FB505C>

Hazardous wastes:
<http://www2.gov.bc.ca/gov/topic.page?id=4C31A8F4F63B414D807AE4CF35EF9E36>

British Columbia Automobile Association: 1-800-663-4636 www.bcaa.com

Insurance Corporation of British Columbia, Environmental Department: 604-982-6850
www.icbc.com

Canadian Environmental Protection Act (CEPA):
<http://laws-lois.justice.gc.ca/eng/acts/c-15.31/>

Environmental Management Act:
http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/03053_00

Workers Compensation Act:
http://www.bclaws.ca/EPLibraries/bclaws_new/document/ID/freeside/96492_00

Workplace Hazard Materials Information Systems (WHMIS):
<http://hc-sc.gc.ca/ewh-semt/occup-travail/whmis-simdut/index-eng.php>

6.0 GLOSSARY OF TERMS

Contaminant. A substance that is not naturally present in the environment or is present in elevated amounts, which, if in sufficient concentration, can adversely affect flora, fauna and/or the environment.

Code of Practice (COP). A regulatory document developed by the District that contains mandatory sanitary sewer discharge standards for specific industrial, institutional or commercial sectors.

District. Capital Regional District (CRD).

Effluent. Liquid flowing out of a facility or household into a sewer system or water body.

Metals. Metallic elements with high atomic weights, such as silver, iron, zinc, copper, lead, mercury, cadmium and arsenic. They are generally persistent in the environment, have the potential to accumulate in the food chain and sewage treatment plant or septic system sludge and can cause health effects in organisms.

Manager. The sewage control manager and includes any deputy sewage control manager.

Milligrams per litre (mg/L). The weight of a substance in milligrams in one litre of wastewater (may also be referred to as parts per million or ppm).

Oil and Grease (hydrocarbon). An organic substance recoverable by procedures set out in standard methods or a procedure authorized by the manager and includes, but is not limited to, non-polar petroleum hydrocarbons.

Oil-Water Separator. Means a three-stage oil-water separator that meets the Standard for Oil-Water Separators (ULC-S656-14) prepared by Underwriters' Laboratories of Canada or the equivalent oil-water separation technology able to achieve an effluent quality of 50 mg/L of oil and grease (hydrocarbons) or less.

Pollution prevention. The use of processes, practices, materials and energy that avoid or minimize the creation of processing and other wastes.

Sanitary sewer. A collection system for domestic, commercial, institutional and industrial wastewater or any combination thereof.

Septic system. An onsite sewage system for treating domestic waste.

Hazardous waste. Any chemical, compound, mixture, substance or article as defined in the BC Hazardous Waste Regulation, pursuant to the Environmental Management Act of British Columbia.

Spill containment. Any impervious structure that surrounds a container or works that is sufficient to hold the larger of 110 percent of the largest volume of free liquid in the container or works OR 25 percent of the total volume of free liquid in storage.

Spill response plan. A written plan developed for the operator to respond to any spills at a mechanical repair operation site. As a minimum, the plan must define the roles and responsibilities for spill response, contact names and numbers for the appropriate agencies, and a checklist of all spill response equipment.

Standard Methods. The latest edition of Standard Methods for the Examination of Water and Wastewater jointly prepared and published from time to time by the American Public Health Association, American Water Works Association, and the Water Environmental Federation.

Storm Sewer. A pipe conduit, drain or other equipment or facilities for the collection and transmission of stormwater or uncontaminated water.

Treatment works. Any works specified in a code of practice designed for the treatment of waste.

Trucked liquid waste. Any waste that is collected and transported from the site where the waste originated by means other than discharge to a sewer.

Vehicle. A vehicle as defined under the Motor Vehicle Act as amended from time to time.

Wastewater. The spent or used water of a community or an industry.

Wetted height. The depth from the static water line to the bottom of the oil-waste separator.

Generic Maintenance Log

Select One (✓): Oil-Water Separator Catchbasin Sedimentation Pit Septic System

Unit: _____

| Date (dd/mm/yy) | Inspection Conducted (Yes/No) | Cleaning Conducted (Yes/No) | Type of Material (Solids/Oil/Grease) | Measured Depths | Quantity Removed | How & Where Waste Was Disposed | Conducted By |
|--------------------|-------------------------------------|-----------------------------------|-----------------------------------------|--------------------|---------------------|--------------------------------------|--------------|
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| | | | | | | | |

Copy this form for your use.

Additional copies are available by contacting the CRD Hotline (250-360-3030), www.crd.bc.ca