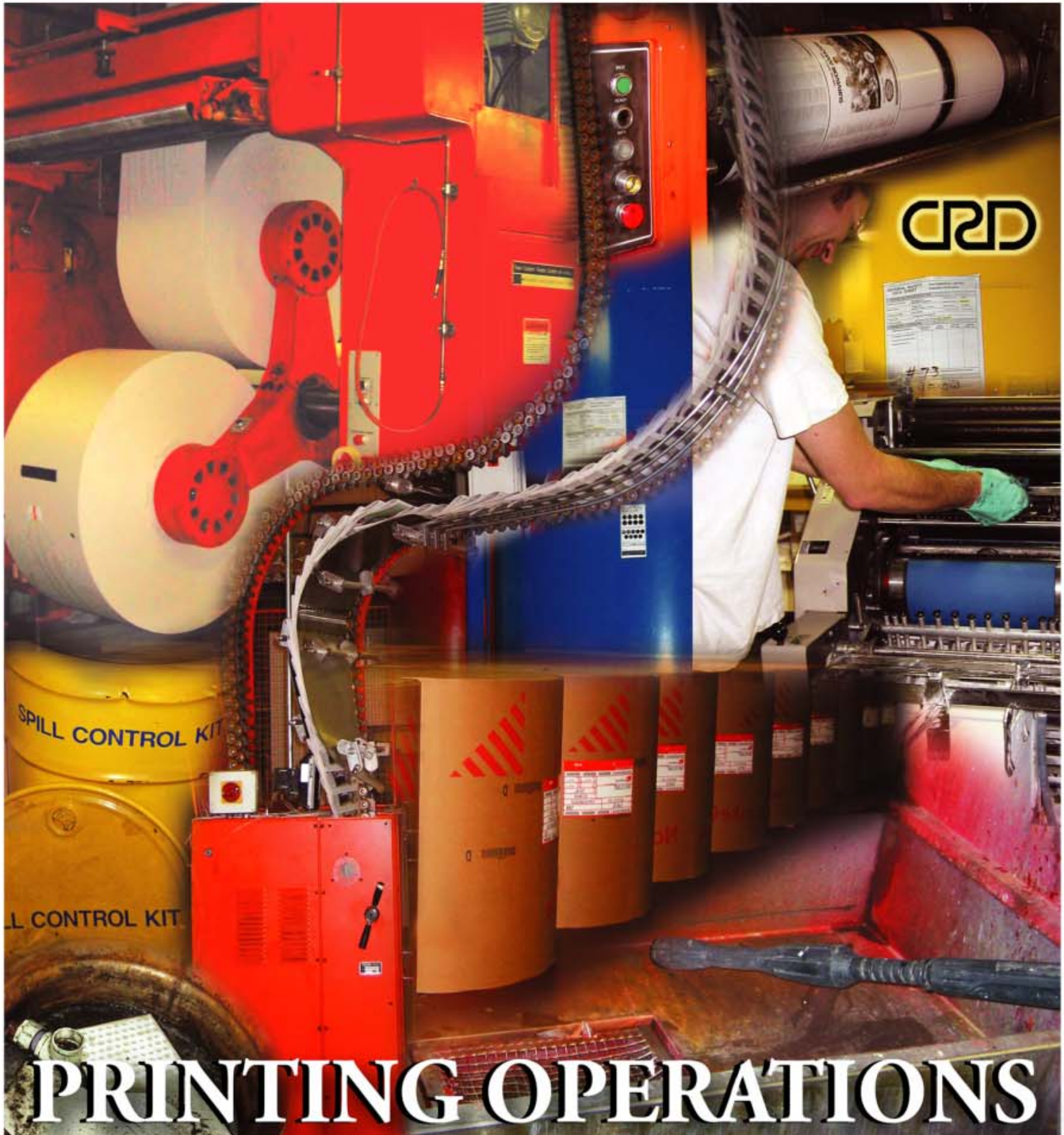


Environmental Regulations & Best Management Practices



PRINTING OPERATIONS

Printing Operations in the Capital Regional District

ENVIRONMENTAL REGULATIONS & BEST MANAGEMENT PRACTICES

Printing 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
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1.0 INTRODUCTION

The Capital Regional District (CRD) Regional Source Control program has identified the printing industry as a significant contributor of contaminants to the region's sanitary sewer system. There are close to 100 businesses within the CRD with printing service as their primary business. Many printing activities involve handling and managing a wide variety of materials and wastes that could end up in the region's sanitary sewer system.

The CRD Regional Source Control program has prepared this document in cooperation with representatives from a variety of operations within this sector. This document serves as a guide to the environmental regulations that apply to printing 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 Printing Operations 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 printing 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 significant contributor of contaminants to the sewer system.

Liquid wastes from printing processes such as inks, fountain wash solutions, rinse water from equipment that has been washed in solvent, flexography plate acid bath solutions, etching solutions and wash-out solutions can negatively effect sewage collection and treatment works and pose a health hazard to sewer workers. Reduction in the amounts of printing wastes discharged to sewer will also help protect the receiving marine environment.

Wastewater from printing operations can also contain quantities of solids, heavy 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 the protection of the environment, human health and the structural integrity of the sewer system.

1.2. Summary of Regulatory Requirements

1.2.1 Federal Government

Various acts and regulations established by the federal government are relevant to printing operations. For example, the *Transportation of Dangerous Goods Act* contains provisions that apply to the general transportation and handling of hazardous materials and the *Canadian Environmental Protection Act (CEPA)* 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 CEPA would apply. For more information regarding the above requirements see Section 5. CleanPrint BC web pages contain information specific to environmental legal requirements relevant to BC printing operations. Also, Environment Canada's CEPA registry lists current and proposed regulations under the *Act*.

1.2.2 Provincial Government

1.2.2.1 BC Regulations

The *BC Spill Reporting Regulation* 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* contains requirements for Workplace Hazardous Materials Information System (WHMIS) training, including chemical labeling, storage and record keeping.

The BC Ministry of Water, Land and Air Protection regulates the generation, storage, treatment, recycling and disposal of special wastes to the environment through the BC Special Waste Regulation (BCSWR) under the *BC Waste Management Act*. Section 39 of the BCSWR restricts the deposit or discharge of special 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 workplace health and safety issues such as chemical exposure, indoor air quality and biohazards under the provincial Workers Compensation Board 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 *Waste 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 five liquid waste control programs that the CRD Board committed to during a 1992 referendum on liquid waste. 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 recently updated as CRD Sewer Use Bylaw 2922, No. 5, 2001, and is generally referred to as the Sewer Use Bylaw. The main intentions of the program 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 sewage 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 printing operations within the CRD include:

- CRD Hartland Landfill Tipping Fee and Regulation Bylaw, 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,
- Municipal storm sewer bylaws, which regulate the discharge of wastes into municipal stormdrains and watercourses, and
- Municipal plumbing bylaws, which specify 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 printing 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 printing 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.

Printing operations that follow the **Code of Practice for Printing Operations** (Schedule 'Q' 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 printing 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 printing operation is defined as any commercial, industrial or institutional operation or a public authority that involves printing, including, but not limited to the following processes:

- lithography,
- gravure or rotogravure,
- flexography,

- screen printing,
- letter press.

Examples of these businesses are government or civic organizations, consulting firms (engineering, computer, technical and marketing), educational institutions such as secondary, post-secondary, art and technical schools and other in-house printing facilities.

Businesses and institutions where printing processes are used must follow this code of practice if they use the sewer system for discharge of wastewater other than domestic waste from toilets and washrooms.

2.2 Discharge Regulations

Printing 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
- special waste – anything governed by the *BC Special Waste Regulation* such as waste paint, flammable materials and acids
- 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, with the exception of chemical oxygen demand (COD) and biochemical oxygen demand (BOD)
- rinse water from equipment that has been washed in solvent
- inks and fountain solutions
- flexography plate acid bath solutions, etching solutions and wash-out solutions
- cleaning solvents

Stormwater must not be discharged into a sanitary sewer without a valid permit or authorization.

2.2.1 Installation of Treatment Works

Operators of printing operations commencing business on or after January 1, 2003 are required to either:

- collect and transport all wastes produced from printing processes for off-site management; or
- install treatment works (trade waste interceptor, oil-adsorbing filter, activated carbon cartridge and metering pump) to treat all liquid waste from printing processes. These treatment works must be easily accessible for sampling, inspection and maintenance.

Existing operations are required to have the treatment works installed by January 1, 2005. The treatment works must be installed earlier if improvements in excess of \$1,000 are made to facilities that will increase the discharge flow or contaminant loading in the wastewater, or if they discharge non-domestic waste into a sewer above the limits expressed in the bylaw.

The following are key considerations for installation of treatment works:

- The trade waste interceptor must be designed to have a minimum capacity 75 litres and have a minimum retention time of four hours.
- Wastewater collected in the trade waste interceptor must be delivered by a calibrated metering pump to an oil adsorbing filter and then to an activated carbon cartridge before discharge to sewer.
- For ease of inspection the treatment works must have a sampling port installed. The port must be located either at the outlet of the activated carbon cartridge or downstream of the activated carbon cartridge at a location upstream of any discharge of other wastes.
- The sampling ports must be easily accessible at all times for inspection and sampling.
- As of January 1, 2003, all waste from washrooms (e.g. toilets, urinals, showers and hand washing sinks) will have to be diverted so that it does not flow through the treatment works. This applies to all new and existing printing operations with washroom facilities.

2.2.2 Inspection and Maintenance of Treatment Works

Inspection and maintenance efforts must adhere to the following:

- The trade waste interceptor must be inspected at least once every six months.

The depth of the sludge at the bottom must be measured as well as the oils floating on top.

- Settled solids in the trade waste interceptor must not be left to accumulate in excess of the lesser of 7.5 cm or 25 percent of the wetted height of the trade waste interceptor.
- Floating material (oil, grease and inks for example) in the trade waste interceptor must not be allowed to accumulate in excess of the lesser of 2.5 cm or 5 percent of the wetted height of the trade waste interceptor. Accumulation of volatile materials in the floating layer can cause health and safety concerns. Also, as the amount of floatable material increases, the efficiency of the interceptor decreases.
- 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 24 months regardless of the amount of floatables or solids. This will ensure that the interceptor receives at least a minimum level of maintenance on a regular basis.
- The oil-adsorbing filter and activated carbon cartridges must be replaced when one of the following occurs: the manufacturer's or supplier's expiry date has been reached, or when 80 percent of the maximum recommended capacity, or total cumulative flow, has been reached, or as determined by analytical sampling (Schedule 'Q' of Bylaw 2922).
- When the interceptor is cleaned; the floating material or solids must not be disposed of into a sewer or in any place where they may enter the municipal drainage system or watercourses.
- Hot water, detergents, solvents or any other chemical agents must not be used to flush waste through the treatment works.

2.3 Registration

All printing operations operating under this code of practice must register with the CRD Regional Source Control program and report any subsequent change in the status of their operation to the CRD. See Schedule "H" of Bylaw 2922, Code of Practice Registration form. Failure to register may result in the issuance of fines.

2.4 Storage and Containment

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

containment:

- solvents, dyes, paints and inks,
- waste solvents, waste paint, waste dyes and other waste from a printing process.

2.5 Spill Response

Existing printing operations must prepare a spill response plan by July 1, 2003. Facilities commencing operation after January 1, 2003 have 60 days prior to commencing operation to prepare a plan.

- The spill response plan must be kept on site and available for inspection and should be posted in a highly visible location. Adequate clean-up equipment and supplies must be kept in stock at all times.
- 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.
- The operator must clean up any spills immediately.
- After clean up, the treatment works must be inspected and cleaned if necessary before resuming wastewater discharge from the operation.

2.6 Record Keeping and Retention

Operators of printing operations 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 treatment works must be available for inspection. These records must be retained for the entire time that the printing 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 inspection. This includes:

- dates of all inspections and/or maintenance to any component of the treatment works,
- description of the inspection or maintenance of the treatment works including:

- measured depth of settled material in the trade waste interceptor,
- measured depth of floating material in the trade waste interceptor,
- the type and quantity of material removed from the trade waste interceptor,
- name of disposal company or facility receiving material from the trade waste interceptor,
- installation date of each oil-adsorbing filter and activated carbon cartridge,
- expiry date and serial number of each oil-adsorbing filter and activated carbon cartridge where provided by manufactures or suppliers,
- maximum recommended capacity, or total cumulative flow, of each oil-adsorbing filter and activated carbon cartridge used, and
- dates of all metering pump calibrations.

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 printing operations decrease the amount of contaminants entering the sewer 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.

A good source of information on best management practices regarding air quality and solid waste recycling for the printing industry can be found on the CleanPrint BC web pages. See Section 5.0 for more information.

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.

- Increase awareness of best available technology, as many companies now consider environmental issues when designing and manufacturing their products.
- Maintain records of all employee training.

3.2 Special Waste Management

Some chemical wastes produced in the printing industry must be managed as special wastes. Special waste includes used parts washer solvent (containing xylene, benzene, toluene), waste ink (containing metals, solvents), waste haze remover (high pH) and waste fountain solutions (may contain metals, inks, solvents, low pH). Special waste also includes used film developer (containing hydroquinone) and waste PMT activators (containing silver) see Section 3.12.

- Do not dispose of Special Waste to the treatment works, sanitary sewer, storm drains or ground.
- Call your suppliers or your waste disposal or recycling company to see how your Special Wastes may be re-used, recycled, and disposed.

3.3 Ink and Waste Ink Management

CleanPrint BC, a non-profit organization comprised of multiple agencies and printing resources, is also an excellent reference for more information on management of print waste. Visit their Web site for more information.

- Minimize the amount of waste ink you generate. Label all ink press returns with viscosity, ink type, solvents used, date and press. This way you will work off your ink more efficiently and reduce ink wastage and solvent usage.
- Contract a reputable waste disposal company to dispose of waste inks. Waste inks should be treated and managed as Special Waste.
- Store waste ink in covered containers in a secure area away from storm or sanitary drains or sumps.
- Remove ink from screen frames with rags and a chemical ink remover prior to removing the emulsion. Then use emulsion remover and de-ghosting agents in your screen reclaiming area. This will minimize the amount of toxic chemicals contained in ink being flushed into the treatment works.

3.4 Shop Towels

- Do not use rags or towels to dispose of excess waste inks, solvents, spent

fountain solution and other printing process wastes. Collect these wastes in separate labeled containers for off site management.

- When using shop towels for clean up, ensure that you know how your laundry service manages their waste and that they are capable of treating restricted wastes correctly, as you are responsible for your waste products.

3.5 Spent Fountain Solution

- Do not pour spent fountain solution into treatment works, sanitary sewers or storm drains. Dispose of fountain solution as specified in the Material Safety Data Sheet (MSDS) provided for the product used.
- Some fountain solutions may contain chemicals that should be managed as Special Wastes.

3.6 Press Washing

- To reduce discharge to the treatment works, collect press washes and sludge and place into sealed containers for disposal.
- To minimize press washing and reduce the amount of press wash used, dedicate a press to a specific colour on a specific day if possible.
- If you are using solvents for press washes, reuse solvent for progressively dirtier tasks. This will reduce the amount of new or clean solvents required.
- Work with your supplier to find water-soluble press washes to reduce the need for solvents.
- Do not put floor-washing wastewater into treatment works, as emulsifiers will interfere with the ability of the trade waste interceptor to separate floatable and settleable materials.

3.7 Parts Washing

- Do not use evaporation as a means of disposing solvents
- Avoid using chlorinated compounds for parts washing (see MSDS).
- Make sure that the spent solvent in collection tanks is too dirty to be used again before changing to clean product. Manage waste solvents as Special Waste.

3.8 Treatment Works Maintenance

When pumping wastewater out of the trade waste interceptor be careful not to pump into the sludge layer at the bottom of the interceptor or pump the floating material off of the top. If you do, the oil-adsorbing filter and activated carbon cartridge will dog resulting in the additional cost of replacement before the life expectancy.

- Consult with your supplier for proper disposal methods of spent cartridges.
- When having the trade waste interceptor cleaned out (refer to section 2.2.2) the collected solids and floating materials should be treated as Special Waste. Call your supplier or waste disposal company for disposal options.

3.9 Spills

- Make sure the spill response plan procedures (Section 2.5) are followed.
- Consider purchasing reusable spill absorbent materials. The pads can be passed through a wringer to remove a large amount of the spilled product, allowing the pads to be reused several times and the spilled material to be recycled.

3.10 Storage

- All materials must be stored in the proper containers with the correct label in accordance with WHMIS procedures. Up-to-date MSDS must be kept on site for each product. See Section 5.0 for contact information.
- Store flammable and combustible materials in fireproof cabinets.
- Ensure separate storage of incompatible chemicals to prevent cross contamination and chemical reactions.
- If possible, store chemicals, solvents and inks in low traffic areas to minimize potential for spills.

3.11 General Maintenance

- Perform frequent inspections for structural integrity of items such as piping, valves, controls, joints, welds, tanks and other areas of potential leaks and spills.

- Use a reputable waste disposal company who will identify and dispose of your wastes, shop recyclables and trade waste interceptor wastes legally.
- If waste is dumped illegally, your business may be held responsible.

3.12 Photographic Imaging

If your operation conducts photographic imaging activities, refer to Schedule “K” of the Sewer Use Bylaw and Guidebook for Environment Regulations and Best Management Practices for Photographic Imaging.

3.13 Non-Hazardous Office Wastes

- Choose products with the least packaging and the highest recyclable material content.
- Recycle waste paper, aluminum cans, newspaper, glass, cardboard and plastic containers.
- 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 5.0.

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 business owners in each sector code.

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 anytime on the effluent from operations regulated under a COP. Repeat sampling may be necessary if non-compliance with 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 \$200 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 Printing Operations or the 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

Provincial Recycling Hotline
1-800-667-4321

CleanPrint BC
www.cleanprint.org/bc

Printers' National Environmental Assistance Center
www.pneac.org

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

Special Waste Transport Licenses
BC Ministry of Water, Land and Air Protection
<http://wlapwww.gov.bc.ca/epd/epdpa/sw/sw.html>

Workers Compensation Board Regulations (WCBR)
1-888-621-7233
www.wcb.bc.ca

Ministry of Water, Land and Air Protection
BC Special Waste Regulation (under Waste Management Act)
(250) 387-3648
www.qp.gov.bc.ca/statreg

Canadian Environmental Protection Act (CEPA)
<http://laws.justice.gc.ca/en/C-15.31>

Waste Management Act
www.qp.gov.bc.ca/statreg

Workers Compensation Act
www.qp.gov.bc.ca/statreg

Workplace Hazard Materials Information Systems (WHMIS)
www.hc-sc.gc.ca/hecs-sesc/whmis

5.1 Resource Materials

Best Management Practices for Flexographic Printers in BC, 2001. CleanPrint BC Web site

Best Management Practices for Offset Printers in BC, 2001. CleanPrint BC Web site

Best Management Practices for Screen Printers in BC, 2001. CleanPrint BC Web site

Checksheet/Guidebook for Printers, Printing and Graphics Pollution Prevention Project, Ontario, P2 for Printers, 1997

Transcontinental Printing Inc: Full Scale Demonstration of a Treatment Technology to Reduce Contaminants and Re-use Water in the Printing and Graphics Industry, August 1997, Environment Canada, Fraser River Action Plan, DOE FRAP 1997-12

Riikonen, Nancy, Industrial Wastewater Source Control, An Inspection Guide, 1992, Technomic Publishing Company Inc.

6.0 GLOSSARY OF TERMS

Activated Carbon Cartridge. A cartridge filled with activated carbon capable of removing oil and grease, oil and grease (hydrocarbons) benzene, ethylbenzene, toluene and xylenes from printing operation effluent through the principles of adsorption and absorption.

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.

Heavy 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 sludge and can cause health effects in organisms.

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

Metering Pump. A pump designed to deliver waste at a calibrated flow rate.

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-Adsorbing filter. A filter capable of removing oil and grease and oil and grease (hydrocarbons) from printing operation effluent.

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

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.

Special Waste. Any chemical, compound, mixture, substance or article as defined in the *Special Waste Regulation*, pursuant to the *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 vehicle 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 *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.

Trade Waste Interceptor. An interceptor designed to separate and retain settleable solids and floatable material from printing operation wastewater prior to further treatment before discharge to sanitary sewer.

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

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

Wetted Height. The depth from the static waterline to the bottom of the trade waste interceptor.