5 WATER

DEP has regulations regarding the discharge of industrial wastewater to surface waters (streams, ponds, rivers, etc.), groundwater (i.e. septic systems), and into a municipal sewer system. This section outlines the requirements for each receiving system.

Your shop may generate industrial wastewater from several sources including: film and plate processing; spent fountain solution; equipment washing; and waterbased inks, coatings, adhesives and cleaning solutions. The discharge of the industrial wastewater represents a significant environmental issue.

1 SEPTIC SYSTEMS

You cannot discharge any liquid industrial waste to a septic system. You can only discharge sanitary wastewater to an onsite septic system. You are required to ship offsite your photoprocessing wastewater, waste fountain solution, process cleaning solutions, and any other waste streams from prepress, press and postpress operations. If the industrial wastewater is not regulated as hazardous (page 19), you may be able to use a septage hauler that collects septage/wastewater for disposal at a sewer treatment plant. If you cannot find a septage hauler, you can ship it offsite as nonhazardous industrial wastewater to an approval treatment/disposal facility.

2 DISCHARGES TO MUNICIPAL SEWERS

You may discharge industrial wastewater to a municipal sewer system after receiving approval from the local sewer authority (or sewer treatment plant). DEP regulates the discharges of sewer treatment plants to local surface waters (e.g. rivers, etc.). In turn, the sewer authorities or treatment plants require, through local sewer ordinances, wastewater dischargers to comply with certain discharge limits and sewer use permits. These ordinances are also called "pretreatment requirements for indirect dischargers." (Indirect means the wastewater goes through a sewer system to a treatment plant and does not go directly to a river.)

You are required to determine what local pretreatment requirements are applicable to your shop's operations. Contact the local sewer authority or sewer treatment plant for information on discharge limits and permit requirements. A list of sewer treatment plants is provided on page 83.

WHAT ARE TYPICAL DISCHARGE LIMITS?

Regardless of municipality or regional treatment plant, there are usually basic general prohibitions on the types of wastewater that cannot be discharged to the sewer. The prohibitions that may affect printers include:

- **DO NOT** discharge combustibles/flammables (flash point less than 140°F) down the drain.
- **DO NOT** discharge malodorous (e.g., rotten egg smell, etc.) wastewater.

DO NOT discharge any wastewater containing solids (e.g., paper, etc.) that may obstruct the flow in sewers.

DO NOT discharge wastewater with a pH of less than 5.5 or higher than 10.0. (This pH range will very according to sewer treatment plant requirements.)

There may also be other discharge limits for organic and metal pollutants. The limits most likely to be of concern to a printer are: BOD_5, COD, Total Suspended Solids, oil & grease, phenol, silver, copper, zinc. You should contact your local sewer authority or treatment plant to find out what local limits apply to your wastewater discharge.

HOW DO I GET A SEWER USE PERMIT?

Your local sewer authority or treatment plant will provide you with a Wastewater Survey or Permit Application form to summarize (by source, volume, and characteristic) your wastewater before it is discharged to the sewer. You may be also be required to sample and analyze your wastewater, and submit the results with the form. (Note that the location and collection method of the wastewater varies according to the local sewer authority or treatment plant. You should inquire on the proper method and location before you sample.)

Sewer Use Permit

After you complete and submit the form, the local sewer authority will decide the need for a sewer use permit. For most printers, permits are generally not required. Larger printers, with large volumes of wastewater discharges or discharges of unique pollutants, usually need permits. If a permit is required, you should read the permit carefully to ensure you understand your obligations. The permit may also require you to sample your wastewater (monthly, quarterly, semiannually or annually) and submit reports. If so, set up a calendar to be sure that you perform the monitoring and prepare the reports on time.

If you do not need a sewer use permit, you are still required to comply with the general prohibitions, and any discharge limits in the local sewer ordinance. Your local sewer authority may still require you to complete an annual Wastewater Survey.

ANNUAL WASTEWATER SURVEY

Your local sewer authority or treatment plant may require you to complete a Wastewater Survey each year. Review the form carefully and reevaluate the volume and characteristics of the wastewater you discharge to ensure proper reporting. Some sewer authorities may also require annual wastewater analyses, if you are not already testing the wastewater as required by a permit. Generally, small printers do not have to perform wastewater analyses, and the local sewer authority will accept instead, an estimate of the type and concentration of pollutants in the wastewater discharge.

3 DISCHARGES TO SURFACE WATERS

DEP and EPA regulate the discharge of wastewater to rivers, streams, or lakes. You are required to obtain a discharge permit (also called a National Pollutant Discharge Elimination System or NPDES permit), regardless of the volume or characteristics of the wastewater. In addition, the wastewater

may have to be treated before discharge, and you will be subject to extensive wastewater monitoring and reporting requirements.

If you have no other option for wastewater disposal, and intend to discharge to surface waters, you must submit an application to DEP to obtain a permit before discharging. The application and approval process is lengthy and resource intensive. You may want to seek a consultant with expertise in these types of permits.

You should seriously consider all options before discharging to surface waters. For more information, call your DEP regional office.

4 STORMWATER

Contaminated stormwater runoff has a significant environmental impact. DEP and EPA have regulations for the management and permitting of stormwater discharges. For printers, two conditions must exist before a stormwater discharge permit is required. First, stormwater and/or melting snow must come into contact with chemicals or materials that can contaminate it. Second, there must be a natural or artificial conveyance to discharge stormwater/melted snow to surface waters — such as a river, stream or lake. (Stormwater discharged to a municipal sewer system is considered an artificial conveyance.)

Here is a list of sources generally found at print shops and whether a discharge permit is required.

Source	Stormwater Discharge Permit
Outside storage of chemicals and empty containers	**Yes**
Uncovered aboveground storage tanks	**Yes**
Uncovered ink fill pipes	**Yes**
Outside fuel dispensing operations	**Yes**
Onsite fleet vehicle maintenance shops	**Yes**
Contaminated or oil soaked pallets	**Yes**
Open compactors or dumpsters (no lids or overhang roofs)	**Yes**
Compressor and cooling system blowdown	**Yes**
Uncovered loading dock platforms	**Yes**
Sprinkler system flushing	**No**
Uncontaminated air conditioning condensate	**No**
Lawn sprinklers	**No**

There are three options, if you have outside activities and discharge stormwater to surface waters.

Option 1	Relocate materials and/or activities inside.
Option 2	Build shelters around or roofs over materials and/or activities conducted outside.
Option 3	Continue your activities and obtain a stormwater discharge permit.

WHAT TYPE OF PERMIT DO I NEED?

There are three types of stormwater discharge permits.

- An individual permit for a specific facility.
- A group permit wherein similar facilities obtain one permit.
- A general permit.

There are currently no group permits for printers. General permits are preferred, because they may not require any stormwater testing, while individual permits do require testing. All printers with outside activities and discharging stormwater are required to have at least a general permit.

General Permit

To obtain a general permit, you must submit a Notice of Intent (NOI). If you seek to obtain an individual permit, you must submit an application (Form 1 with additional information including stormwater analyses). The NOI and Form 1 can be obtained from your nearest regional DEP office.

Discharging stormwater (exposed to outside activities) to municipal system requires notification. A subsequent permit may be required. You should call your local sewer authority for more information.

IF I GET A GENERAL PERMIT, THEN WHAT DO I DO?

Printers with a general stormwater permit must prepare and implement a Storm Water Pollution Prevention Plan (SWP3). See the sample Table of Contents for a typical SWP3 Plan on page 48. In preparing this Plan, you should design it to minimize future revisions. Put equipment lists, phone numbers, and site plans, etc. on separate pages for easy updating. You should review the plan at least annually to make sure it is current, when equipment/procedures change or if you implement the plan and any of the procedures are inadequate.

The SWP3 is intended to help printers identify activities and industrial areas which contribute to stormwater contamination and where a BMP (Best Management Practice) needs to be established. For the printing industry, the use of BMPs provides several benefits in place of traditional engineering controls to prevent contamination of stormwater discharges. The table on page 48 gives a description of stormwater BMPs for printing operations.

BMPs also allow printers to avoid analytical monitoring of the stormwater discharges. Only printers that use Section 313 chemicals (page 60) are required to perform monitoring of stormwater.

The general permit also requires a quarterly visual inspection that includes observations and documentation of color, odor, turbidity, floating solids, foam, and oil sheen at stormwater discharges. The quarterly inspection procedures should be outlined in the SWP3. It is recommended that a logbook be used to document the inspections.

SWP3 PLAN - TABLE OF CONTENTS

Section 1 - Purpose of Plan
Section 2 - Pollution Prevention Team Responsibilities
Section 3 - Description of Pollutant Sources
Section 4 - Preventive Measures & Controls, Spill Response
Section 5 - List of Spills for the Last 5 Years
Section 6 - Annual Site Inspection/Evaluation
Section 7 - Nonstormwater Discharges
Section 8 - Plan Review and Update
Appendices
- Site Plans Showing Outfalls and Sources
- Site Inspection Form(s)
- Stormwater Analyses (if required)
- Notification Letter to Municipality (if required)

Stormwater – Best Management Practices for Printers

Plates & Film	Store inside on pallets or drums before pickups.
Pallets	Do not accumulate. Reuse or discard immediately. Store inside, if possible.
Storage Tanks	Locate ink, fuel oil and solvent tanks inside, if possible. Ensure that fill pipes are covered with drip trays. If located outside, use double-wall tanks or cover with roofs.
Empty Drums & Containers	Do not store on loading dock platforms. Store inside.
Dumpsters & Compactors	Use lids or cover with shelters.
Loading and Unloading Chemicals	Do not unload or load during rainstorms. Do not store containers on loading docks.
Outside Spills	Clean up spills immediately.
Vehicle Fueling Operations	Cover dispensers and installed grooved pavement.
Fleet Vehicle Washing	If possible, use biodegradable washes or only pressurized water. Do not wash fleet vehicles (10 or more vehicles) outside. Use an offsite service.
Fleet Maintenance	Perform fleet maintenance activities inside. Do not store parts outside. Install storm drains inside garage connecting to an oil-water separator.