

**MASSACHUSETTS WATER RESOURCES AUTHORITY
SEWER USE DISCHARGE PERMIT APPLICATION
for
COLLEGES AND UNIVERSITIES
INSTRUCTION SHEET**

In accordance with the Massachusetts Water Resources Authority (MWRA) Sewer Use Rules and Regulations 360 C.M.R. 10.052 and 10.062, users must complete and file a Sewer Use Discharge Permit Application. The Application must be filed with the MWRA and the municipality in which the sewer user's discharge is located. Please read the following instructions before completing the form.

1. Answer all questions carefully.
2. The application is designed to apply to a wide range of users. It consists of a "standard application", sections A-G which every user must complete. In addition, several "inserts" have been provided for a variety of different operations. **You must submit an insert for every operation that is present at your facility.**
3. For the questions which do not apply, please write "N/A" or "not applicable" in the space provided.
4. If more space is needed, attach additional pages.
5. If you have previously submitted information required by this application and that information is unchanged, you must resubmit the information. If there are only minor changes, you may resubmit the information, and on a separate sheet indicate the changes that have occurred, with page references for each change.
6. The form must be signed and dated by an authorized representative of the user to be valid.
7. Submit the original completed form to the MWRA and a copy to the Municipality where the discharge is located. Keep a copy for your own records.
8. You must submit a completed application no later than sixty(**60**) days before your current permit expires in order for your current permit to remain in effect pending a decision on your new application.

MWRA ADDRESS:
2 Griffin Way
Chelsea, MA 02150-3334
Attention: TRAC

MUNICIPAL ADDRESS:
See Attached List

MASSACHUSETTS WATER RESOURCES AUTHORITY
SEWER USE DISCHARGE PERMIT APPLICATION
COLLEGES AND UNIVERSITIES

SECTION A - GENERAL INFORMATION

1. Name of Applicant: _____

2. Mailing Address: _____

3. Facility Address: _____

4. Facility Representative to Contact Concerning Information Provided Herein.
Name: _____ Title: _____
Telephone: _____

5. Name and Title of Authorized Representative:
Name: _____ Title: _____
Telephone: _____

6. Name of Person to Receive Permit (If Different from Above).
Name: _____ Title: _____
Telephone: _____

7. Check One: Existing Discharge _____ Proposed Discharge _____

If proposed discharge, anticipated date of initial discharge: _____

The MWRA has adopted the EPA's definition of an Authorized Representative. 40 CFR 403.12 (l):

Authorized Representative

Authorized representatives include those persons with the following responsibilities:

a) Responsible corporate officer, if the industrial user submitting the reports is a corporation. For the purpose of this requirement, a responsible corporate officer means a president, secretary, treasurer, or vice president of the corporation in charge of a principal business function, or any other person who performs similar policy or decision-making functions for the corporation, or the manager of one or more manufacturing, production, or operation facilities employing more than 250 persons or having gross annual sales or expenditures exceeding \$25 million (in second-quarter 1980 dollars), if authority to sign documents has been assigned or delegated to the manager in accordance with corporate procedures.

b) General partner or proprietor if the industrial user submitting the reports is a partnership or sole proprietorship respectively.

c) Duly authorized representative of the individual designated in (a) or (b) of this section if:

- i) the authorization is made in writing by the individual described in (a) or (b);**
- ii) the authorization specifies either an individual or a position having responsibility for the overall operation of the facility from which the industrial discharge originates, such as the position of plant manager, operator of a well, or well field superintendent, or a position of equivalent responsibility, or having overall responsibility for environmental matters for the company;**
- iii) the written authorization is submitted to the MWRA**

If an authorization is no longer accurate because a different individual or position has responsibility for the overall operation of the facility, or overall responsibility for environmental matters for the company, a new authorization satisfying the requirements of this section must be submitted to the MWRA prior to or together with any reports to be signed by an authorized representative.

Date

Signature of Authorized Representative

SECTION B - PRODUCT OR SERVICE INFORMATION

2. Check all operations/processes that are present at the facility:
For Each operation/process that is present, please complete the insert that corresponds to the operation/process

- Commercial Photography (SIC # 7335)
- Photofinishing Laboratories (SIC # 7384)
- Doctors of Medicine; Offices, Clinics (includes Radiologists (SIC # 8011))
- Dentists; Offices and Clinics (SIC # 8021)
- Health Practitioners, General Offices (SIC # 8049)
- Veterinary Services for Livestock (SIC # 0741)
- Veterinary Services for Animal Specialties (SIC # 0742)
- Commercial Art and Graphic Design (SIC # 7336)
- Testing Laboratories (X-ray inspection services, industrial) (SIC # 8734)
- Laundry

- Educational Facility (check all below that are included in the facility):

- Photography Lab
- Health Center
- Graphic Design and Commercial Art Labs
- Labs (chemistry, biology, research, etc.)
- Dentist/Doctor Office
- Maintenance Shop (Automotive/Equipment)
- Other(s), please specify below:
- Infirmary

SECTION C - OVERALL OPERATIONAL CHARACTERISTICS page 4

1. Operating Information: If usage is variable, please comment:
(for example, main operation is between September and May or open 24 hours)

a. Total operating hours per work day _____

b. Operating shift schedule:

first shift	start_____	stop_____
second shift	start_____	stop_____
third shift	start_____	stop_____

c. Operating days per week _____

d. Average annual work days per year _____

e. Number of employees _____

SECTION D - WATER USAGE

1. Water Sources:

Name the water sources for your facility. Include the amount contributed from each source in 100 cubic feet (ft³) from the beginning of July to the end of June. Indicate the year. (100 ft³ = 748 gallons)

Source	Name	Annual Water Use 7/1/____ -6/30/____
Municipal (Town or City)		100 ft ³
Private Water Company		100 ft ³
Surface Water (Lake or Pond)		gallons
On Site Well		gallons
Other Source		gallons
TOTAL:		

2. Has incoming water been analyzed within the past year? This information can be helpful in determining sources of pollutants in the discharge that can not be accounted for in the raw materials. yes _____ no _____

If yes, attach a copy of the results.

SECTION E - CHEMICAL USAGE

1. Submit copies of any reports that indicate chemical usage of chemicals covered under the Superfund Amendment and Reauthorization Act (SARA) Title III including the quantities used per year.

Examples of reports that should be submitted, if they exist for your facility, include:

- Biannual DEP Report
- Inventories with Local Fire Departments
- SARA Title III Report
- Other Reports/Inventories which would illustrate chemical usage on premises

Please list the reports that you have submitted:

SECTION F - SANITARY SEWER CONNECTION(S)

1. Attach a map of the campus or facility showing all buildings and include a key which describes the operations conducted in each building. In the buildings where process (as opposed to sanitary) wastewater discharges, label alphabetically, the connections to which the processes discharge. Also label the nearest downstream manhole with the same letter. If there are more than 26 connections, begin the series with AA, BB, etc. Indicate if both process and sanitary wastewater discharge through a common connection. Name all surrounding streets and buildings, and any other pertinent physical structures that may facilitate field orientation.

SECTION G - NON-DISCHARGED WASTE

1. Are any waste liquids or sludges removed from the facility site? yes_____ no_____

If yes, attach a copy of the Biennial Report for Hazardous Waste required by DEP.

2. How is liquid, sludge and clean-up hazardous and non-hazardous waste removed from facility?

3. Does the facility implement any of the following management plans?

_____ Chemical Hygiene Plan (OSHA)

_____ Other Waste Management Policies

Please attach a table of contents for each waste management policy checked. You are required to keep copies of each plan on site so that they may be reviewed by the MWRA on request.

4. State the name and address of any waste hauler(s) contracted by your facility.

_____	_____
_____	_____
_____	_____
_____	_____

5. Are any sludges, liquids or spill clean up materials placed with the trash for disposal?
yes_____ no_____

Describe discarded waste:

State name and address of hauler for this waste:

6. Does your facility employ the service of a commercial laundry? yes_____ no_____

State the name and address of the company:

7. Does your facility have it's own laundry on the premises? yes_____ no_____

INSERT 1

PHOTODEVELOPING

1. For each photodeveloping process, please provide the following information. Please refer to the key which explains how the information should be provided. If more space is needed, please photocopy this table and attach:

1	2	3	4	5	6	7
TYPE OF PROCESS	HOURS OF OPERATION	HOURS OF DISCHARGE (USE N/D IF NO DISCHARGE)	BUILDING	CONNECTION (FROM MAP ON PAGE 6)	FLOW	PT

KEY:

Column 1 - Process

Enter the codes provided below:

- | | |
|-------------------------------------|--|
| C-41 Color Film Developing | MICRO Microfilm Processing |
| RA-4 Color Paper Processing | MICRO REV Microfilm Reverse Proc. |
| EP-2 Color Paper Processing | B&W FILM Black & White Film Proc. |
| R-3 Prints from Color Slides | B&W PAPER Black & White Paper Proc. |
| K-14 Color Transparency Proc | X-RAY X-Ray Processing |
| E-6 Color Transparency Proc. | PLEASE WRITE IN ANY "OTHER" |

Column 2 - Hours of Operation

Enter the time of day (ie. 8:00AM - 4:00PM) that each operation is running. Please remember to use AM and PM.

Column 3 - Hours of Discharge

Enter the time of day (ie. 2:00PM - 3:00PM) that each operation is discharging to the sewer. If it is the same as column 2, write "same". If it is an intermittent discharge, write "I" and the hours in which there is intermittent discharge (ie. I - 1:30PM - 4:30PM)

INSERT 1

PHOTODEVELOPING

Column 4 - Building

Write the name of the building that the operation is located in, as you named the building in Section F.

Column 5 - Connection

Identify the connections by the letters you used to mark the connections on the map in Section F.

Column 6 - Flow

Use the following ranges to identify the daily flow rate:

- | | |
|----------------------------|---------------------------------|
| < 10 gallons per day (gpd) | 501-1000 gpd |
| 10-50 gpd | 1001-5000 gpd |
| 51-100 gpd | If > 5000 gpd, specify how much |
| 101-500 gpd | |

Column 7 - PT

Enter the codes provided below to identify all types of pretreatment used for each process:

- SR** Silver Recovery Cartridges
- ESR** Electrolytic Silver Recovery
- IE** Ion Exchange (Conventional Regeneration)
- E/D** Evaporation/Distillation
- CP** Chemical Precipitation
- pHC** Chemical Addition pH Neutralization
- pHL** Limestone Chip pH Neutralization
- NT** No Pretreatment
- O** Other - Describe Here:

2. For each process, indicate the characteristic of the wastewater that is discharged. (for example: rinsewater, fixer, developer)

3. How was each flow determined in the above table (column 6)?

4. Attach Maintenance Schedules for each pretreatment system identified in column 7.

5. Are there any process changes planned for the next five years which would effect wastewater volume or characteristics yes_____ no_____

If yes, please describe:

6. Attach Material Safety Data Sheets (MSDS) for chemicals used in all processes identified in column 1.

7. Attach analytical results for pH and silver for wastewater samples collected of each process discharge to the sewer **after** pretreatment.

1. Indicate the types and quantities of labs that are present in the facility. Include only laboratories that discharge or have the potential to discharge process wastewater to the sanitary sewer.

- _____ Research
- _____ Chemistry
- _____ Biology
- _____ Biochemistry (include both General and Advanced)
- _____ Medical/Chemical
- _____ Engineering (plastics, chemical, mechanical, etc.)
- _____ Other, please explain

2. Indicate below types and numbers of laboratories that are present in each building. Along with the type of pretreatment.

TYPE OF LAB	BUILDING NUMBER/NAME	# OF LABS	ROOM NUMBER	PRETREATMEN

List of various forms pretreatment

- 1. Neutralization/pH adjustment
- 2. Chemical precipitation
- 3. Ion exchange
- 4. Silver Recovery
- 5. Filtration
- 6. Sedimentation
- 7. Other, please explain:

3. Are limestone chip tanks (LCT) installed at the lab sinks. (This question can be answered in a variety of ways. For example, certain buildings may have LCT at each sink, while other buildings may have selectively chosen sinks that have LCT).

1. Are any cooling systems/towers present in the facility?

_____ yes

_____no

If yes, please list each cooling system/tower and the building in which it is located. Also answer the following questions as it pertains to each cooling system/tower.

- volume of water used (capacity of system/tower)
- tonnage of equipment
- location of equipment
- Bleed volumes and frequencies
- Discharge points
- chemicals used (include MSDS)

1. Are there any boilers present in the facility? (NOTE: The MWRA is interested in boilers other than what would be found in a household).

_____ yes _____no

If yes, how many? _____

List all the buildings in which boilers are present.

2. What are the use(s) of the boilers present in the facility?

_____ Hot water
_____ Steam
_____ Other, please explain _____

3. What type(s) of boilers are present in the facility?

_____ Low pressure
_____ High pressure
_____ Firetube boiler
_____ Watertube boiler
_____ Other, please explain _____

4. Is there any treatment of boiler feed water?

_____ Softening
If yes, what method?
_____ Demineralization
If yes, what method?

5. Is the boiler feed water (make-up) metered?

What is the daily average used? _____

Is condensate returned to the system? At what percent? _____

5. (continued) Is there any regeneration of the water softening system in-house? _____

What is frequency of regeneration? _____

What is the volume of brine discharged to sewer?

Where is the discharge plant located?

5. Is there any regeneration of the demineralization system in-house? Is it on service?

6. Is there any pretreatment of the boiler blowdown prior to discharge to the sewer? If yes, please describe below:

1. What are the hours of operation of the laundry facility? _____

2. In what building is the laundry located? _____

3. Please list the chemicals used in the laundering operation. (Please include MSDS for each chemical/detergent used)

_____	_____
_____	_____
_____	_____

4. Is there any form of pretreatment, prior to discharge to sewer? (pH adjustment, lint screen, others?)

pH Adjustment _____

lint screen _____

Other (explain) _____

Please provide a brief description of the pretreatment process below:

5. What is average daily flow of wastewater discharged? _____ gpd

6. How was the wastewater flow determined? Estimated _____ or Measured _____

By what method was the water measured? _____

7. What is average temperature of wastewater? _____

**INSERT 6
(Automotive, Equipment)**

**MAINTENANCE SHOP/MACHINE SHOP
page 1**

1. Does the facility have a maintenance repair shop for automobiles and/or equipment?

_____yes _____no

If yes, how many? _____

2. Check all operations/processes that are conducted in the repair shops:

- _____ Machine Shop
- _____ General Automobile Maintenance/Repair
- _____ Engine/Transmission Repair
- _____ Radiator Repair
- _____ Steam Cleaning/High Pressure-High Temperature Washing
- _____ Car/Truck Washing
- _____ Paint/Body Shop
- _____ Other

3. In what buildings are the repair shops located?

4. Check the chemicals used in the repair shops and its discharge location.

<u>CHEMICALS</u>	<u>Discharge</u>		
	Sewer	Storm drain	Hauled as Hazardous Waste
_____ Hydraulic fluids	_____	_____	_____
_____ Lubricating oils	_____	_____	_____
_____ Quenching oils	_____	_____	_____
_____ Cutting oils	_____	_____	_____
_____ Coolants	_____	_____	_____
_____ Solvents	_____	_____	_____
_____ Other	_____	_____	_____

5. Are there any vapor degreasers, rectifiers, compressors or similar equipment in use?

_____yes _____no

If yes, do any of them require cooling water? _____yes _____no

Is any noncontact cooling water discharged to the sewer? _____yes _____no

If yes, what is the volume discharged per day? _____

If water is not used for cooling equipment, describe the cooling practices.

5. Is there any pretreatment of wastewater? yes no

Check the various types of pretreatment that are used:

- | | |
|--|---|
| 1. <input type="checkbox"/> Neutralization/pH adjustment | 6. <input type="checkbox"/> Silver Recovery |
| 2. <input type="checkbox"/> Chemical precipitation | 7. <input type="checkbox"/> Screen/Grit Removal |
| 3. <input type="checkbox"/> Sedimentation | 8. <input type="checkbox"/> Grease Trap |
| 4. <input type="checkbox"/> Filtration | 9. <input type="checkbox"/> Gas/Oil Separator |
| 5. <input type="checkbox"/> Ion Exchange | 10. <input type="checkbox"/> Other _____ |

6. Is there a routine washdown of the work area? yes no

If yes, what is the frequency? _____

What is the volume discharged? _____

Is there any pretreatment? _____ (explain) _____

7. Are any degreasing operations performed? yes no

If yes, please check the type of degreasing performed:

- | | |
|---|---|
| <input type="checkbox"/> Caustic soak | <input type="checkbox"/> Vapor degreasing |
| <input type="checkbox"/> Safety Kleen | <input type="checkbox"/> Bake-off oven |
| <input type="checkbox"/> Jet Spray | <input type="checkbox"/> Steam cleaner |
| <input type="checkbox"/> Solvent degreasing | |
| <input type="checkbox"/> Other _____ | |

8. Are there any floor drains in the shop? yes no

Where do they discharge? _____

9. If any chemicals are stored in the shop, please list describe the spill containment measures that are followed.

1. Are there any incoming water treatment systems in the facility? ____yes ____no

If yes, what type? ____Reverse Osmsosis
____De-ionized
____Other

2. Please list the location and type of incoming water treatment systems that are present in the facility.

<u>Location/Building</u>	<u>Type of Water Treatment System</u>	<u>Is there a discharge?</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____
_____	_____	_____

3. Are there any discharges to the sewer from the maintenance of the incoming water treatment systems? ____yes ____no

Identify the type of streams that are discharged:

____ incoming reject water
____ d/i regeneration water
____ filter backwash
____ Other

4. For each stream listed in question #2 that is discharged to the sewer, please provide the following information: (a separate page may be attached, if necessary)

- frequency of discharge
- duration of discharge
- total volume of discharge
- location of each discharge

5. Is water kept in a holding tank and drawn-off as needed? ____yes ____no

6. Is the water produced on an as-needed basis? ____yes ____no

7. Is the treated water metered? ____yes ____no

8. If there are no reject streams from the incoming water treatment systems, explain the maintenance practices of the water treatment systems.

INSERT 8

PRINTING page 1

1. Are any printing operations performed in the facility? yes no

If yes, what type? off-set
letterpress
other, please explain _____

2. Are there any auxiliary operations associated with the printing operations? yes no

If yes, what type? film processing
plate developing
silkscreening
other

3. Please list the buildings in which printing operations occur:

4. If there are photodeveloping operations, please complete INSERT 1.

5. If there are silkscreening operations, please complete INSERT 9.

6. If plate developing is done, what type of plates are used?

7. Please list the chemicals used in the printing operations. Please also attach the MSDS for each.

8. Is developer washed off and discharged to the sewer? yes no

If yes, what is the volume and frequency of the discharge?

If no, how is developer removed from the plates?

9. If rags are used to clean the plates, how are the rags disposed of?

Hauled as hazardous waste
Rubbish disposal
Laundered
Other

If the rags are laundered, list the name & address of the company:

1. Are any graphic art/silkscreening operations performed in the facility? ____yes ____no

2. Please list the buildings in which graphic art/silkscreening operations occur:

3. Please attach MSDS for all chemicals used in the graphic art/silkscreening operations.

4. What type of photo sensitive coating is used for silkscreening?

____ Paper

____ Liquid

If liquid, what volume? _____

Is the liquid discharged to the sewer? ____yes ____no

At what frequency and volume is the liquid discharged?

5. What type of developer is used? _____

If the developer is discharged to the sewer, what is the volume and frequency of the discharge?

6. How is the screen cleaned after printing? If a solvent is used, please explain the solvent's destination (hauled, sewer, etc.)

7. Are the screens reused or thrown away? If they are thrown away, please describe the disposal practices.

8. Please list any equipment that discharges noncontact cooling water to the sewer, the volume discharged and the frequency of the discharge:

Equipment

Volume, gpd

Frequency

9. What types of paints and/or inks are used?

- oil-based
- water-based
- other

10. Is there any discharge to the sewer via routine area washdown, spills, etc.? yes no

If yes, please describe the discharge, its volume, and frequency of the discharge:

<u>Type of Discharge</u>	<u>Volume, gpd</u>	<u>Frequency</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

11. Please explain the procedures followed to ensure that dumping and/or spilling of chemicals to the sewer does not occur.

1. Are any pottery, ceramics and/or jewelry making operations performed in the facility?

If yes, please indicate which operations are performed:

- Pottery
- Ceramics
- Jewelry Making

2. Please attach MSDS for all chemicals used in the pottery, ceramics and jewelry making operations.

3. Please list the buildings in which pottery, ceramics and/or jewelry making operations occur:

<u>Building</u>	<u>Operation</u>	<u>Does the Operation Discharge to Sewer?</u>
_____	_____	_____
_____	_____	_____
_____	_____	_____

4. In reference to Question #3, please explain what is discharged to the sewer, the volume of the discharge and its frequency of discharge.

5. Is any hazardous waste generated from these operations? yes no

If yes, please describe the type of wastes and collection procedures followed.

6. Are any electroplating or metalfinishing operations performed? yes no

If yes, please complete INSERT 11.

7. Please explain the procedures followed to ensure that dumping and/or spilling of chemicals to the sewer does not occur.

1. Are electroplating or metalfinishing operations performed in the facility? yes no
2. Please list the buildings in which electroplating and/or metal finishing operations take place.
3. Please attach MSDS for chemicals used in the electroplating/metalfinishing operations.
4. What was or will be the date of commencement of the electroplating/finishing processes at your facility? _____
5. List the base materials that are finished:

6. List finishes:

7. Indicate the metal finishing operations conducted:

<input type="checkbox"/> Electroplating	<input type="checkbox"/> Electroless Plating
<input type="checkbox"/> Anodizing	<input type="checkbox"/> Coating (chromating, phosphating & coloring)
<input type="checkbox"/> Chemical etching milling	<input type="checkbox"/> Printed Circuit Board Manufacturing

8. Indicate the auxiliary processes associated with the finishing operations:

<input type="checkbox"/> cleaning	<input type="checkbox"/> solvent degreasing	<input type="checkbox"/> welding
<input type="checkbox"/> soldering	<input type="checkbox"/> polishing	<input type="checkbox"/> polishing
<input type="checkbox"/> tumbling	<input type="checkbox"/> painting	<input type="checkbox"/> machining
<input type="checkbox"/> grinding	<input type="checkbox"/> hot dip coating	<input type="checkbox"/> other

Please explain other:

9. Is there a wastewater discharge from these processes? yes no

If no, please explain what happens to the spent baths, rinses, etc.

**INSERT 11
OPERATIONS**

ELECTROPLATING/METAL FINISHING
page 2

10. Is the wastewater treated? ____yes ____no

11. Indicate the types of treatment included in the pretreatment system:

____chromium reduction	____precipitation
____flocculation	____filtration
____electrolytic recovery	____ion exchange
____neutralization/pH adjustment	____cyanide treatment
____other _____	

12. What is the average daily flow from the pretreatment system? _____gpd

13. Is a flow measuring device installed at the end of the treatment system? ____yes ____no

If yes, what type of measuring device is installed?

____weir	____parshall flume
____magmeter	____venturi meter
____other, _____	