

310 CMR: DEPARTMENT OF ENVIRONMENTAL PROTECTION

310 CMR 71.00: INDUSTRIAL WASTEWATER REGULATIONS FOR PHOTO PROCESSORS AND PRINTERS

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71.01: Purpose and Authority

(1) The purpose of 310 CMR 71.00 is to provide for the protection of public health, safety, welfare and the environment by establishing performance standards for photo processors and printers and requiring a performance-based facility-wide compliance certification in accordance with 310 CMR 70.00: *Environmental Results Program Certification*.

(2) 310 CMR 71.00 is promulgated pursuant to the authority of M.G.L. c. 21, §§ 26 through 53 and M.G.L. c. 21C.

71.02: Definitions

Cartridge Unit means any variety of hollow canisters containing steel wool or fiberglass fibers impregnated with iron filings which are used for silver recovery. These units use metallic replacement to recover silver. They are sometimes called "chemical recovery cartridges", "metallic recovery cartridges" or "canisters".

Class A Recycling Permit means a permit issued pursuant to 310 CMR 30.221: *General Provisions*.

Container means any portable device in which an industrial wastewater is stored, transported, treated, disposed of, or otherwise handled.

Equivalent POTW Permit means a permit issued by a Publicly Owned Treatment Works (POTW) containing an effluent limit of no more than 2 mg/l for total silver (*i.e.*, two parts per million).

Industrial Wastewater means wastewater resulting from any process of industry, trade or business, regardless of volume or pollutant content. Wastewater which contains only sewage, non-contact cooling water, compressor or air conditioner condensate, including wastewaters from restaurants and school/industry cafeterias is not considered industrial wastewater.

Photo Processor means a facility, as defined in 310 CMR 71.00, that performs the chemical process by which photographic film is treated after photographic exposure to produce a negative or positive image (*e.g.*, processing color prints or slides, or black and white prints or slides). Photo processor does not include a facility that only conducts digital processing of color prints or slides, or black and white prints, or slides.

Photo Processing means the chemical process by which photographic film is treated after photographic exposure to produce a negative or positive image (*e.g.*, color or black and white film, prints, or slides). Photo processing does not include a the digital processing of color or black and white prints, or slides.

Printer means the owner or operator of a facility subject to 310 CMR 7.26(20) through (29) pursuant to 310 CMR 7.26(21): *Applicability*.

71.02: continued

Publicly Owned Treatment Works or POTW means any device or system used in the storage, treatment, recycling, and reclamation of municipal sewage or industrial wastes of a liquid nature which is owned by a public entity. A POTW includes any sewers, pipes, or other conveyances only if they convey wastewater to a POTW providing treatment.

Silver Recovery Unit or System, or Silver Recovery Unit or Unit means equipment or a process that removes silver from solutions such as fixers, bleach fixers, washless stabilizers, and low flow washes.

Small Scale Precipitation Unit means an enclosed pre-assembled unit which uses chemicals to cause the silver to settle to the bottom of the container. The water is then separated from the silver on the bottom and is discharged. The resultant sludge is sent off-site for refining.

Tank means a stationary device used to store or contain an accumulation of industrial wastewater and which is constructed of non-earthen materials (*e.g.*, concrete, steel or plastic) which provide structural support.

71.03: Applicability

(1) Unless exempt pursuant to 310 CMR 71.03(2), the following photo processors are subject to 310 CMR 71.00:

- (a) photo processors that perform photo processing in a commercial space; or
- (b) photo processors that use automated photo processing equipment.

(2) The following photo processors are exempt from 310 CMR 71.00:

- (a) photo processors that discharge or generate industrial wastewater from photo processing and industrial wastewater from other industrial processes;
- (b) photo processors that process motion picture film;
- (c) photo processing performed in a dental or other medical offices;
- (d) photo processors described in 310 CMR 71.07(1) that are not required to submit a compliance certification. Such exemption shall expire at the earlier of an election by an otherwise exempted photo processor to certify in accordance with 310 CMR 71.00, or at the expiration of any permit, described in 310 CMR 71.07(1), held by that otherwise exempted photo processor.
- (e) photo processing performed in a residence; and
- (f) photo processors using only hand tray processing.

(3) 310 CMR 71.00 applies to printers subject to 310 CMR 7.26(20) through (29).

71.04: Performance Standard for Photo Processors and Printers with Equivalent POTW Permits

Each photo processor with an equivalent POTW permit shall comply with that equivalent POTW permit and the applicable requirements of 310 CMR 71.05(2) through (4) and 71.06.

71.05: Performance Standard for Photo Processors and Printers Without Equivalent POTW Permits That Discharge or Ship Industrial Wastewater to a POTW

Except as set forth in 310 CMR 71.05(6), each photo processor and each printer without an equivalent POTW permit that discharges or ships industrial wastewater to a POTW shall comply with the applicable requirements of 310 CMR 71.06 and the following:

(1) Discharge Limit. Each photo processor and each printer shall not discharge or ship industrial wastewater to a POTW unless the wastewater from photo processing contains no more than 2 mg/l (*i.e.*, two parts per million) of silver, measured in accordance with 310 CMR 71.05(3). In addition, by one year from May 1, 1998 no printer shall discharge or ship to a POTW wastewater containing dischromate (chromic acid) resulting from film processor cleaning operations.

71.05: continued

- (2) Operation and Maintenance. Each photo processor and each printer shall maintain a silver recovery unit in accordance with the manufacturer's or vendor's instructions to meet the 2 mg/l silver limit or limit set forth in the equivalent POTW permit, whichever is stricter.
- (3) Sampling and Analysis. Each photo processor and each printer shall sample its wastewater and shall analyze the sample for silver content.
  - (a) Frequency. Sampling and analysis shall occur as frequently as necessary to demonstrate that the discharge complies with 310 CMR 71.05(1) and 71.06(2), and at least monthly, unless the Department approves a different frequency, or unless a different frequency is set in accordance with a process reviewed and approved by the Department.
  - (b) Methodology. The sample shall be representative of wastewater composition during the selected day, and shall be taken after the photo finishing process (*i.e.*, after combination with other wastestreams from photo processing) but prior to dilution with other wastewater. The sample shall be analyzed by a state-certified laboratory, a photographic equipment manufacturer, or a photochemical manufacturer provided that the lab uses methods prescribed in *Standard Methods for the Examination of Water and Wastewater*, issued by the American Health Association, American Waterworks Association, and the Water Pollution Federation, 1992 edition.
- (4) Recordkeeping and Reporting. Each photo processor shall keep the following records in 310 CMR 71.05(4)(a) through (f) and each printer shall keep the following records in 310 CMR 71.05(4)(a) through (f) on-site for at least three years.
  - (a) sampling dates and results conducted in accordance with 310 CMR 71.05(3);
  - (b) for silver recovery systems with cartridge units, date(s) of silver recovery cartridge installation and replacement;
  - (c) for silver recovery systems without cartridge units, date(s) that the silver recovery unit is cleaned or serviced;
  - (d) total amount of wastewater discharged in the past 12 months; and
  - (e) total amount of wastewater passing through the silver recovery system in the past 12 months; and
  - (f) MSDSs or other records demonstrating that film processor cleaners do not contain any chromium compounds.
- (5) Compliance with Board of Certified Operators of Wastewater Treatment Facilities Requirements. Each photo processor and each printer using a silver recovery system shall comply with 257 CMR 2.00: *Certification of Operators of Wastewater Treatment Facilities*, if applicable.
- (6) Printers with DEP Sewer Connection Permits. Each printer without an equivalent POTW permit that has a sewer connection permit issued by the Department pursuant to 314 CMR 7.00: *Sewer System Extension and Connection Permit Program* shall comply with either 310 CMR 71.05(1) through (4) or with the terms and conditions of that permit.

71.06: Supplemental Requirements for Photo Processors and Printers

- (1) Photo processors and printers shall not discharge industrial wastewater to the ground without a groundwater permit pursuant to 314 CMR 5.00: *Ground Water Discharge Permit Program*, and shall not discharge industrial wastewater to surface water without a permit pursuant to 314 CMR 3.00: *Surface Water Discharge Permit Program*. Discharge of industrial wastewater to a septic or on site disposal system is prohibited.
- (2) Photo processors and printers subject to 310 CMR 71.00 that use silver recovery systems with cartridges or non-cartridges shall comply with the general and specific prohibitions listed in 310 CMR 71.06(2)(a) and (b):
  - (a) General Prohibitions. No person shall discharge or cause to be discharged to a POTW any substances, materials or wastewaters that can harm the sewers, wastewater treatment process, or equipment; have an adverse impact on the receiving waters or can otherwise endanger life, limb, public property or constitute a nuisance. In addition, no person shall discharge hazardous waste or allow the discharge of hazardous waste through any sewer connection.

71.06: continued

In determining the acceptability of these wastewaters, consideration shall be given to such factors as the quantities of such wastewaters in relation to flows and velocities in the sewers, materials or construction of sewers, nature of the wastewater treatment process, capacity of the wastewater treatment process, degree of treatability of such wastewaters in the wastewater treatment plant, and other pertinent factors. Pollutants introduced into POTWs by a non-domestic source shall not pass through the POTW or interfere with the operation or performance of the works. These general prohibitions and the specific prohibitions listed in 310 CMR 71.06(2)(b) apply to all non-domestic sources introducing pollutants into a POTW whether or not the source is subject to other pretreatment standards or any other Federal, State or local pretreatment requirements.

(b) Specific Prohibitions. In addition, the following pollutants shall not be introduced into a POTW:

1. Pollutants which create a fire or explosion hazard in the POTW;
2. Pollutants which cause corrosive structural damage to the POTW, but in no case discharges with pH lower than 5.5 or more than 10.0, unless the works is specifically designed to accommodate such discharges;
3. Solid or viscous pollutants in amounts which will cause obstruction to the flow in the POTW resulting in interference;
4. Any pollutant, including oxygen demanding pollutants discharged in a flow rate and/or pollutant concentration which will cause interference with the POTW;
5. Heat in amounts which will inhibit biological activity in the POTW resulting in interference, but in no case heat in such quantities that the temperature at the POTW treatment plant exceeds 40°C (104°F) unless the Division, upon request of the POTW, approves alternate temperature limits.

(3) Photo processors and printers generating hazardous waste shall comply with all applicable requirements in 310 CMR 30.000: *Hazardous Waste* including requirements for using holding tanks for hazardous waste. These holding tank requirements include:

- (a) maintain tanks and containers holding hazardous waste to be recycled on site in accordance with 310 CMR 30.205(19): *Storage and Accumulation in Tanks and Containers*;
- (b) maintain tanks and containers holding hazardous waste to be shipped off site in accordance with 310 CMR 30.340: *Large Quantity Generators*, 30.351: *Small Quantity Generators*, or 30.353: *Very Small Quantity Generators*, as applicable;
- (c) maintain records in accordance with 310 CMR 30.310: *The Manifest*, 30.331: *Recordkeeping*, and 30.353(9), as applicable, in order to demonstrate that all hazardous waste is shipped off-site to a facility authorized to receive it pursuant to 310 CMR 30.305: *Destination of Hazardous Waste or Regulated Recyclable Material Sent Off-site* or 30.353(8).

(4) Photo processors and printers using silver recovery systems which are not directly piped to the photo processing wastestream shall:

- (a) comply with any existing Class A recycling permit for the unit;
- (b) maintain tanks and containers holding hazardous industrial wastewater in accordance with 310 CMR 30.205(19): *Storage and Accumulation in Tanks and Containers*;
- (c) record amount of industrial wastewater passing through their silver recovery unit and keep the records on-site for at least three years; and
- (d) manage any hazardous waste byproducts either as a regulated recyclable material in accordance with 310 CMR 30.200: *Provisions for Recyclable Materials and for Waste Oil* or as a hazardous waste in accordance with 310 CMR 30.000 *Hazardous Waste*.

(5) Photo processors and printers using tanks or containers to store non-hazardous industrial wastewater shall:

- (a) use tanks which
  1. have a containment structure with 110% capacity of the total volume of all above-ground tanks;
  2. have a bell and light alarm in a conspicuous location if they are remotely/ automatically filled tanks. The alarm must activate when the level of wastewater reaches 75% capacity of the tank and the alarm signal must be transmitted to a staffed location. Manually filled tanks must be provided with visual or sight glass type of level measurement;

71.06: continued

3. are located to provide year round access for emptying;
  4. have odor control as necessary;
  5. are made of, or lined with, materials which will not react with, and otherwise be compatible with, the industrial wastewater to be stored; and
  6. are located in a secured storage area which is free of cracks and gaps that is sufficiently impervious to contain leaks and spills, and,
  7. have a label indicating contents are non-hazardous.
- (b) use containers which
1. satisfy requirements set by the Department of Transportation for transportation of waste off-site,
  2. have a label indicating contents are non-hazardous, and,
  3. are located in a secured storage area which is free of cracks and gaps that is sufficiently impervious to contain leaks and spills.
- (c) maintain records sufficient to demonstrate that all industrial wastewater is shipped off-site to the POTW, including, but not limited to, transporter name and address, dates of shipment, amount shipped, and destination. These records shall be kept on-site for at least three years.
- (d) implement the following operating procedures and work practices:
1. spill control measures when filling, emptying or transporting containers
  2. report to the local Board of Health within 24 hours any occurrence of spills released to the environment.

71.07: Compliance Certification for Photo Processors and Printers

(1) Beginning on September 15, 2006, and thereafter as prescribed in accordance with 310 CMR 70.03(1): *Schedule for Submission of Compliance Certification*, photo processors shall submit to the Department, a compliance certification on a form supplied by the Department in accordance with 310 CMR 70.00: *Environmental Results Program Certification*, except that photo processors discharging to a POTW holding any sewer connection permit issued pursuant to 314 CMR 7.00: *Sewer System Extension and Connection Permit Program* or holding a permit issued by the Massachusetts Water Resources Authority pursuant to 360 CMR 10.000: *Sewer Use* that do not haul or ship photo processing waste off-site are not required to submit a certification.

(2) Beginning on September 15, 2006, and as prescribed in accordance with 310 CMR 70.03(1): *Schedule for Submission of Compliance Certification*, thereafter, printers shall submit to the Department a compliance certification in accordance with 310 CMR 70.00: *Environmental Results Program Certification*.

REGULATORY AUTHORITY

310 CMR 71.00: M.G.L. c. 21, § 26 through 53; c. 21C.