



Photographic Processing Facility Sector Control Policy

Persigo Wastewater Treatment Plant
Industrial Pretreatment Division
2145 River Road
Grand Junction, CO 81505
970-256-4180

I. INTRODUCTION

The United States Environmental Protection Agency (EPA) requires the City of Grand Junction (City) / Mesa County Persigo Wastewater Treatment Facility (Persigo) to have an Industrial Pretreatment Program (Pretreatment) to prevent certain pollutants from entering the wastewater system. The pollutants of concern are those that can interfere with the operation of the wastewater treatment process, pass through the wastewater treatment system without adequate treatment or contaminate treatment plant biosolids.

The Photographic Processing Facility Sector Control Policy (Policy) establishes City requirements for any Photographic Processing Facility (PPF or facility) that has the potential to discharge silver and associated pollutants related to the photographic processing sector into the sanitary sewer system. Such wastes can contribute to wastewater treatment plant process interference, pass-through of pollutants into the environment, contaminate biosolids and impact sewer worker health and safety.

The purpose of this Policy is to minimize the loading of wastes and associated pollutants related to the photographic processing sector from entering the sewer system at the source. The Policy encompasses the entire service area of the Persigo 201 sewer boundary, which includes the City of Grand Junction and portions of Mesa County.

Definitions of the terms used in this Policy are found in Grand Junction Municipal Code (GJMC) Sections 13.04.010 and 13.04.360.

II. AUTHORITY

The BMPs in this Policy are authorized by Sections 13.04.370 and 13.04.460 of the Grand Junction Municipal Code (GJMC).

GJMC Section 13.04.370 specifically prohibits the discharge of the materials that may cause harm to the Publicly Owned Treatment Works (POTW), which includes the sewer collection system and the Persigo facility. Some of these materials may be found in the discharge from a PPF.

All facilities to which this Policy applies shall comply with all the requirements in this Policy. Facilities shall permit inspections by the City with or without notice for the purpose of determining applicability and/or compliance with this Policy and requirements. Applicable facilities shall inform the City prior to sale or transfer of ownership of the business; or change in the trade name under which the business is operated; or change in the nature of the services provided that affect the potential to discharge pollutants; or remodeling of the facilities that may result in an increase in the pollutant loading.

The City's Industrial Pretreatment Division staff is responsible for implementing this Policy. Duties include but are not limited to reviewing building plans, inspecting applicable facilities for compliance and enforcing Policy requirements.

III. BACKGROUND

The purpose of this policy is to minimize the loading of silver and associated pollutants related to the photographic processing sector from entering the sewer collection system and the wastewater treatment plant from the PPF source.

Silver has a very high toxicity to aquatic life and accumulates in the tissue of aquatic organisms. Processing photographic film, x-rays and photographic prints can produce wastes containing high levels of silver. Such photo processing wastes may contain silver concentrations as high as 15,000 parts per million (ppm) before pre-treatment. Wastes containing more than 5 ppm of silver are classified by the EPA as hazardous waste.

Photo processors can help avoid the generation of silver waste through waste reduction, reuse or recycling. Silver recovery systems collect and recycle the silver that would be sent to the sewer. Businesses can minimize the amount of wastes sent to the sanitary sewer through proper waste management.

IV. APPLICABILITY

Any facility that has the potential to discharge silver and associated pollutants related to the photographic processing sector into the wastewater system is required to install a City-approved silver recovery system (recovery system) to remove silver from process wastewaters and to use the BMPs described in this Policy. Silver recovery units must be approved by the City prior to installation.

This includes:

- New facilities, including the new ownership or lessee of existing facilities;
- Existing facilities closed for a period of one year or longer;
- Existing facilities undergoing remodeling with a change to plumbing and drainage fixtures; and
- Existing facilities changing from a conditionally exempt facility to one where wastes and associated pollutants related to the photographic processing sector are used or discharged in amounts that could hinder sewage disposal.

All PPFs are required to complete an Industrial Pretreatment Application to determine applicability of BMP requirements.

V. SILVER RECOVERY SYSTEM REQUIREMENTS

A recovery system is a plumbing treatment device that is installed between the PPF drainage and the sanitary sewer system. It is designed to remove silver from the facility wastewater discharge prior to sanitary sewer discharge.

All spent chemicals, including fixer, bleach-fix, stabilizer and wash water must be treated in the recovery system prior to discharge. Developer from photo and x-ray film processing operations is not required to be treated.

For optimum recovery system treatment:

- Keep facility wastes segregated to facilitate reuse, recycling or treatment;
- Ensure the treatment system is serviced at the recommended intervals and keep records of all servicing;
- Ensure a person knowledgeable about the treatment system is present whenever it is in operation; and
- Test the system for recovery of silver in order to determine optimum times for cartridge replacements. Future cartridge replacements may then be based on flow, square footage of film & paper processed or time-in-service

All recovery systems must be approved by the City prior to installation. Proper maintenance is required to ensure the recovery system operates properly.

A. City Requirements

1. **Plan Review.** All PPFs are required to complete a City Industrial Pretreatment Application to determine applicability of recovery system requirements. The City requires a recovery system be installed at applicable facilities. If a recovery system is required it shall be installed at the expense of the facility owner or lessee prior to opening for business.
 - a. The facility property owner or lessee or authorized representative is responsible for contacting the City for the purpose of obtaining a site plan review. The site plan review shall determine the need of recovery system requirements necessary to control facility discharges into the sanitary sewer system. The review of such plans shall in no way relieve the facility from the responsibility of modifying such facilities as necessary to produce a discharge acceptable to the City in accordance with GJMC. The type of a required recovery system shall be approved by the City prior to installation. Written approval from the City must be obtained prior to installation of a recovery system.

- b. Plans shall be submitted for approval prior to any of the following:
 - Construction of a new building;
 - Change in the building use or nature of the services provided that affects the potential to discharge wastes and associated pollutants related to the photographic processing sector;
 - Remodeling of the facility that may result in an increase in flow or loading of wastes and associated pollutants related to the photographic processing sector; and
 - Any other reason that otherwise requires the facility to submit plans or specifications for approval through the City or Mesa County Building Department (Building Department).
- c. All plans submitted to the City must clearly show:
 - Location of the recovery system;
 - Type of the recovery system;
 - Recovery system detail showing internal plumbing and dimensions;
 - All building water and sewer plumbing;
 - All plumbing and plumbing fixtures that connect to the recovery system;
 - Size of plumbing and plumbing fixtures that connect to the recovery system;
 - A table or schedule identifying all plumbing fixtures; and
 - All chemical storage areas.
- d. The installed recovery system and associated plumbing shall be inspected and approved by the Building Department prior to issuing a Certificate of Occupancy. Plans shall not be deviated from once a City Planning Clearance has been issued. If a situation warrants the change of an approved plan, an amended copy must be resubmitted to the City and Building Department for approval.
- e. Upon change of ownership of any existing facility which is required to have a recovery system, the applicant for sanitary sewer service shall have the burden to demonstrate that a properly sized and properly functioning recovery system is installed to the satisfaction of the City.

2. Plumbing Criteria

- a. Recovery systems are required to have a 95% minimum silver removal efficiency.
 - b. The recovery system and associated plumbing should only be installed by a licensed plumber or experienced contractor. The plumbing drainage from each process that has the potential to contain silver must be connected to the recovery system. Toilets, water closets, urinals, hand washing sinks and other plumbing fixtures conveying human waste shall not drain into or through the recovery system.
3. Location. The facility must ensure recovery systems are installed and connected to be easily accessible for inspection, cleaning, pumping and maintenance at all times.
 4. Variances. A variance from the requirements of this policy may be granted by the City for good cause. The facility has the burden of proof of demonstrating through data and other information why a variance should be granted. In no case shall a variance result in a violation of any City requirement or effluent limit specified in GJMC. The granting of any variance shall be at the sole discretion of the City. If a variance is granted for a specific Pretreatment requirement, the facility is still required to institute BMPs and other mitigation measures as determined by the City. If a variance is granted, and if the City determines there have been changes to the facility or to the facility's operation that occurred after the time of granting the variance that would have required a specific Pretreatment requirement, the facility will be required to install such Pretreatment.

B. Operation and Maintenance Requirements

1. A facility shall properly maintain and clean a recovery system at its own expense in order to keep it in efficient operating condition at all times. All facilities are required to structurally maintain all components of their recovery system per manufacturer's requirements.
2. Recovery systems shall be maintained by regularly scheduled cleaning so it will properly operate as intended to efficiently intercept the silver from the facility's wastewater and prevent the discharge of materials into the City's sanitary sewer system.
3. Facilities are responsible for the maintenance, servicing and proper waste disposal of the recovery system and cannot abrogate this responsibility to a contractor or any other agent. After servicing, all recovery system contents must be properly disposed of at an approved waste facility in accordance with federal, state and local regulations. Under no circumstances shall recovery system contents be reintroduced to the sanitary sewer system.
4. A facility should ensure that the company used for the removal and transportation of silver waste is properly certified.
5. The waste hauler must provide a certification of proper disposal on a waste manifest for each recovery system servicing to the facility. All records, receipts, and manifests of recovery system maintenance, removal of recovery system contents, and off-site hauling of recovery system waste shall remain on-site and accessible for review by the City for a minimum of three (3) years.

VI. BEST MANAGEMENT PRACTICES

- A. The purpose of Best Management Practices (BMPs) is to minimize the discharge of silver and other prohibited materials into the sanitary sewer system. The following BMPs shall be implemented by applicable facilities:
 1. Chemical identification. Facilities are required to maintain an inventory of chemicals used.
 2. Chemical disposal. Excess chemicals, including expired or otherwise unwanted chemicals, shall not be disposed to the sanitary sewer.
 3. Drains. All floor drains connected to the sanitary sewer in photographic production areas shall be sealed. Machine drains shall be labeled to indicate if they flow to a silver treatment system or directly to the sewer.
 4. Signage. Signs shall be posted above sinks and similar devices located in process areas prohibiting the discharge any waste in violation of this Policy down the drains. Signs shall be posted on faucets reminding employees not to use water to clean up spills.
 5. Employee training. Employee training shall be provided as part of the normal orientation process and annually thereafter and shall include, at a minimum, the following subjects:
 - This Policy;
 - How to properly dispose of wastes; and
 - The location, use, and disposal of absorption products to clean any spills.

Training shall be documented and employee signatures retained indicating each employee's attendance and understanding of the practices reviewed. Training records shall be retained for a period of three (3) years and made available for review at any time by the City.

- B. Spill Prevention and Secondary Containment. All facilities are required to have measures in place and take proper precautions necessary to control unwanted discharges to the sanitary sewer. Chemicals, liquid products and wastes must be stored away from drains or within adequate containment to reduce the potential for spills reaching the

sanitary sewer and/or storm drainage system. All chemical and waste storage areas must be properly maintained.

- C. Prohibitions. A facility may not introduce into the POTW any pollutant(s) which cause(s) pass-through or interference. A list of general and specific prohibitions is contained in GJMC Chapter 13.04.
- D. Hazardous Wastes. Hazardous waste as defined in 40 CFR Part 261 and/or as determined by CDPHE shall not be discharged to the sanitary sewer system unless specifically authorized by the City. A user may request approval from the City for the discharge of a hazardous waste. Such a request must be made in writing; no such discharge is allowed until written approval by the City is obtained.
- E. Recordkeeping. Records, including waste manifests, training forms, logs, maintenance on wastewater treatment equipment, or any other records that document compliance with the requirements of this policy, shall remain on site and accessible for review by the City for a minimum of three (3) years. The City may require a user that falls under the provisions of this policy to submit copies of all records, receipts, manifests, or other documentation.
- F. Discharge Request. A completed Request to Discharge Industrial Process Wastewater (Discharge Request) form shall be submitted for approval by the City for any non-domestic wastewater discharge that is non-routine or unique. Any such discharge must include the Safety Data Sheet and/or lab analysis results for all parameters requested to be discharged. No discharge may occur without written City approval.

VII. ENFORCEMENT

- A. The City is required under federal regulation to enforce against violations pursuant to its Enforcement Response Plan. The City has the authority to seek and assess civil and/or criminal penalties for each violation for noncompliance by all industrial users of the publicly owned sewer system and has the authority to enforce the requirements in this Policy.
- B. If an inspection of a facility shows non-compliance with any of the Policy requirements or any violation of the GJMC the facility will be issued a Notice of Violation to correct the violation. Inspection results will be provided in writing to the facility upon request.
- C. Corrective deadlines for violations are as follows:
 - Spills or leaks shall be cleaned-up within 24 hours;
 - Records, receipts, and/or manifests of BMP maintenance not available for review upon inspection must be provided to the City within five (5) calendar days;
 - Recovery system cleaning must be completed within ten (10) calendar days;
 - Chemical storage/ secondary containment issues must be resolved within ten (10) calendar days;
 - Missing signage must be replaced within ten (10) calendar days;
 - Violations involving improper employee BMP adherence shall require retraining of the employee with documentation of such training to be provided to the City within ten (10) calendar days; and
 - Recovery system repairs must be completed within fifteen (15) calendar days.
- D. If a facility fails to make the corrections within the allotted timeframe or as designated on the NOV, the facility will be subject to further enforcement including but not limited to increased fines and penalties.
- E. The City has the authority to perform work or hire a contractor to perform work necessary to bring a facility into compliance with this Policy. Any extraordinary costs incurred by the City due to Interference, damage, Pass through, or maintenance necessary in the treatment and/or collection system shall be paid by the facility to the City. The direct costs of all labor, equipment and materials incurred in rectifying the Interference or damage, including reasonable attorney's fees, shall be billed directly to the owner or the facility by the City, and such costs shall become part of the total charges due and owing to the City and shall constitute a lien on the facility until paid in full.

VIII. REFERENCES

- A. Grand Junction Municipal Code Chapter 13.04
- B. 40 CFR Part 261