



## Get the Facts:

# Film Development & Silver Recovery

### General Rule

- The silver in liquid fixer waste from the film development process **may not be discharged down the drain under any circumstances.**
- Fixer waste that has been filtered to remove all of the silver may be discharged down the drain.
- The Environmental Health and Safety Office (EHSO) strongly encourages, whenever feasible, switching from chemical film development to a digital imaging system.

### Film Recycling

- Scrap, expired, and developed film contains silver and must be properly recycled when no longer needed.
- Film may be recycled through EHSO by scheduling a **Waste Collection** on our website ([www.ehso.emory.edu](http://www.ehso.emory.edu)) or through the service provider for your silver recovery system.
- When recycling film through a service provider, documentation of film recycling must be kept for 3 years. Provide copies of film recycling documentation to EHSO by emailing [chemwaste@emory.edu](mailto:chemwaste@emory.edu)

### Silver Recovery System User Responsibilities

- Have the silver recovery system on a maintenance plan and have it routinely checked by the service provider to ensure that the silver recovery filter is not overloaded. Overloaded filters will allow silver to pass through to the drain. The maintenance schedule will depend on the type of filter installed and the volume of fixer waste produced.
- Change the silver recovery filter when the service provider deems it necessary. Filters must be changed annually, at a minimum.
- Maintain original copies of silver recovery system documentation for at least 3 years. Documentation may include invoices, contracts, work orders, and/or Certificates of Recycling.
- Provide copies of all such documentation to EHSO by emailing them to [chemwaste@emory.edu](mailto:chemwaste@emory.edu)

Manual Film Development	Machine-Based Film Development
Fixer waste must be collected in an appropriate container for disposal.	When purchasing new film developing equipment, EHSO requests scheduling a consultation by emailing <a href="mailto:chemwaste@emory.edu">chemwaste@emory.edu</a>
Container must be kept closed at all times.	For both new and existing film development equipment, one of the following two options must be used to ensure that silver waste is not discharged down the drain.
Refer to EHSO's 'Regulated Waste Guidelines' for further waste labeling and disposal instructions. This can be found on EHSO's website ( <a href="http://www.ehso.emory.edu">www.ehso.emory.edu</a> ).	Option 1: Install a silver recovery system. Contact EHSO by emailing <a href="mailto:chemwaste@emory.edu">chemwaste@emory.edu</a> for vendor and system information.
Dispose of all chemicals through EHSO by scheduling a <b>Waste Collection</b> on our website ( <a href="http://www.ehso.emory.edu">www.ehso.emory.edu</a> ).	Option 2: If the volumes of fixer waste produced are less than 5 gallons/month, users may choose to collect the fixer waste in an appropriate container for disposal through EHSO by scheduling a <b>Waste Collection</b> on our website ( <a href="http://www.ehso.emory.edu">www.ehso.emory.edu</a> )
If large volumes of fixer waste are produced, EHSO may request the area install a silver recovery unit and maintain it as described in Option 2 of 'Machine-Based Film Development' in the adjacent section.	Refer to EHSO's 'Regulated Waste Guidelines' for further waste labeling and disposal instructions. This can be found on EHSO's website ( <a href="http://www.ehso.emory.edu">www.ehso.emory.edu</a> ).