

UCCS SAFE OPERATING PROCEDURE

52. SAFE HANDLING AND DISPOSAL OF SILVER RICH MATERIALS

(For assistance, please contact [Environmental Health & Safety](#))

Like other metals, silver is an undesirable environmental contaminant in wastewater. To protect the environment, silver discharge to the wastewater treatment plant has been regulated since 1994 to limit the amount of silver discharged in wastewater to 1 part per million (ppm, the same as 1 mg/L).

Silver is used in many industrial processes but the primary University source is photography. Silver is a component of film that makes it possible to take a picture. During processing, silver is removed from the film by the fixer solution. This process occurs with development of consumer-based film photographs and x-rays.

UCCS is a registered Class 1 [Silver Source Generator](#) regulated by Colorado Springs Utilities. EH&S is responsible for administration of the program and retains a copy of the [Colorado Springs Utilities Silver Source Control Policies and Procedures Manual](#).

THERE ARE ONLY TWO AUTHORIZED SILVER GENERATORS¹ ON CAMPUS, the [Visual & Performing Arts](#) Photography Lab and the [Biology Department](#) Photo Lab. In conjunction with these generators, [EH&S](#) files an annual report to document proper silver-rich waste control and disposal practices. Units are encouraged to seek recycling opportunities to reduce disposal costs.

SILVER-RICH PHOTO WASTE CANNOT BE DRAIN DISPOSED²

- ✓ **Generating units must maintain documentation of procedures** used to prevent silver-rich photo waste from being disposed of down the drain.
- ✓ **Silver rich photo waste must be collected in designated containers³** provided by the department.
- ✓ **EH&S must be contacted for collection of full containers**, using the [Chemical Waste Pickup Request](#)
- ✓ The Hazardous Waste Label should be affixed to containers designated for pickup.
- ✓ **A 10-day window from notification to collection may be required** due to personnel staffing limitations.
- ✓ [EH&S](#) will store full containers pending disposal via the normal hazardous waste process.
 - THE ONLY EXCEPTION IS CONTAINERS CONTACTED BY A CERTIFIED SILVER RECYCLER.
- ✓ **The cost of disposal may be passed along to the generating department** if waste minimization⁴ or recycling is not implemented.
- ✓ A report detailing the volume and dates of silver-rich waste generated must be submitted, not later than December 1st annually, to [EH&S](#). A zero-quantity report is required if applicable.

¹A copy of [Silver Source Control Policies and Procedures Manual](#) produced by [Colorado Springs Utilities](#) must be maintained at the location the silver-rich waste is generated.

²For waste isolated and collected by a closed developing system, the vendor name & address, date & volume of waste disposed should be reported to [EH&S](#) at the time of pickup.

³CONTAINERS MUST BE 30 GALLONS OR LESS FOR THE SAFETY OF PERSONNEL HANDLING THEM WHEN FULL.

⁴Waste minimization will be indicated by 30 gallons or less silver-rich waste generated per semester.