The Continuous Removal System is designed for removing dissolved metals or fluorides from large process wastewater flows. The CRS automatically precipitates and filters dissolved metals/fluorides before discharging the treated wastewater to the sewer. Discharged metals or fluorides in solution will be below discharge limits. Removed metals or fluorides are filtered in a dry cake for disposal.

Wastewater sample required for lab testing to properly size system. Contact sales for each specific application.

Specifications:
- pH range 1-13
- Up to 2,000 ppm inlet concentrations can be treated
- 15 to 100 gpm models available
- Most of the equipment is skid mounted for ease of installation
- Factory programmed and tested before shipment
- Indoor or outdoor installation

Standard Features
- UL Listed control panel
- NEMA 4 powder coated steel control panel
- PLC-based control system with color touchscreen HMI
- Polypropylene, Polyethylene, or fiberglass reaction tanks
- Chemical feed metering pumps
- Clarifier for solids settling
- Air operated diaphragm pump for sludge transfer
- Filter press for solids dewatering with air operated feed pump
- Seismic tie-down brackets
- Alarm integration to building management system

Optional Features
- Influent equalization tank with transfer pump skid
- Epoxy coated metal skids
- Heat exchanger systems available for concentrated wastes that generate excessive heat during treatment
- Extension legs and raised platforms for filter presses
- Double containment for skid (includes leak detection)
- Discharge flow meter with totalizer
- Digital data logger for effluent pH, fluorides, metals and/or flow

Specifications subject to change without notice
Heavy Metal Removal Typical process:

- Wastewater is sent from the facility to the optional equalization tank.
- Wastewater is transferred from the equalization tank to the first reaction tank where any metal complexes are broken (depending on the metal to be removed).
- Wastewater overflows to the second reaction tank where the pH is raised with hydroxide (type of hydroxide depends on the metal to be removed) to form metal hydroxides.
- Wastewater gravity overflows to the flash/floc chamber where polymer is added to create a larger solid.
- Wastewater gravity flows into the inclined plate clarifier where the solids settle on the bottom.
- Solids are transferred by an air operated diaphragm pump to the sludge thickening tank before being dewatered in the filter press.
- Clear liquid from the clarifier flows or is pumped through a final filtration stage using filter bags.
- Effluent pH is adjusted down if needed depending on the type of metal removed and the local sewer discharge limits.

Fluoride Removal Typical process:

- Wastewater is sent from the facility to the optional equalization tank.
- Wastewater is transferred from the equalization tank to the first reaction tank where calcium chloride is added (depending on the pH and amount of fluorides to be removed).
- Wastewater overflows to the second reaction tank where the pH is raised with calcium hydroxide to form calcium fluoride solids.
- Wastewater gravity overflows to the flash/floc chamber where polymer is added to create a larger solid.
- Wastewater gravity flows into the inclined plate clarifier where the solids settle on the bottom.
- Solids are transferred by an air operated diaphragm pump to the sludge thickening tank before being dewatered in the filter press.
- Clear liquid from the clarifier flows or is pumped through a final filtration stage using filter bags.
- Effluent pH is adjusted down if needed depending on the local sewer discharge limits.