

Hexavalent Chrome - Compliance

Chrome plating manufacturing operations utilizing hexavalent chrome are complex due to the plating chemistry as well as the various environmental and health and safety regulatory obligations resulting from the manufacturing processes. Due to the many chemicals used in the chrome plating process, various wastes or process streams will require strict control, treatment, and management including air emissions, industrial wastewater, and solid and hazardous wastes. As such, chrome plating facilities are regulated under numerous federal, state, and local environmental statutes that require accomplished environmental personnel to properly manage.

BB&E's staff of environmental professionals have the requisite project experience to assist chrome plating facilities in all aspects of environmental compliance. Specifically, BB&E personnel have proven environmental compliance experience in the following areas:

- The permitting, testing, monitoring, and reporting associated with the National Emission Standards for Hazardous Air Pollutants (NESHAPs) for Chromium Emissions from Hard and Decorative Chromium Electroplating and Chromium Anodizing Tanks (Rule N) for Plating and Polishing Operations (Rule 6W), and for Halogenated Solvent Cleaning (Rule T).
- Resource Conservation and Recovery Act (RCRA) violations that are typically associated with chrome plating facilities, and returning facilities to compliance by addressing violations and monitoring progress.
- Preparing RCRA-required plans such as Hazardous Waste Contingency Plans and Hazardous Waste Management Plans.
- Reporting to local publicly owned treatment works (POTW) associated with indirect discharge.
- Applying for permit coverage under the National Pollutant Discharge Elimination System (NPDES) permitting program for industrial activity.
- Preparing Storm Water Pollution Prevention Plans (SWPPPs) to comply with NPDES permit requirements, and assisting in identifying non-storm water discharges to the storm sewer system.
- The chemicals used in chrome plating processes and assisting with Emergency Prevention and Community Right-to Know Act (EPCRA) hazardous chemical inventory reporting.
- Conducting third-party, objective environmental compliance audits.

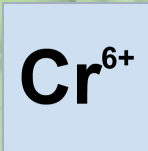


Specialized Experience:

- ✓ Air permits
- ✓ Air Monitoring
- ✓ Wastewater Discharge Permits
- ✓ RCRA Compliance
- ✓ Hazardous Waste Management Plans
- ✓ Hazardous Waste Contingency Plans
- ✓ NPDES Permits
- ✓ Industrial Wastewater Treatment
- ✓ EPCRA Reporting
- ✓ Environmental Compliance Audits

For additional information or to speak to someone regarding BB&E's environmental capabilities, please contact Mr. Aaron Etnyre at 248.489.9636 x303, or email aetnyre@bbande.com

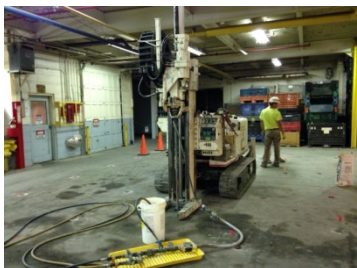




Hexavalent Chrome - Remediation

BB&E has significant experience in the evaluation and remediation of hexavalent chrome (Cr⁶⁺) contaminated sites throughout the U.S. with varying degrees of regulatory and technical complexity. BB&E can aid clients in the development, evaluation, and costing of remedial strategies for Cr⁶⁺ remediation and management including the collection of site specific design data and bench scale, and pilot scale testing. BB&E can evaluate and develop long-term regulatory closure strategies for both active and closed industrial Cr⁶⁺ plating facilities including the implementation of Judicial Consent Decrees or other complex regulatory requirements. BB&E's remedial approach includes providing clients with the information needed to evaluate potential risks and select reasonable and realistic approaches to remediate identified Cr⁶⁺ and other common plating contaminants while incorporating land-use controls and other site management strategies where prudent to support regulatory closure. BB&E's staff has employed various remedial techniques in remediation of Cr⁶⁺ contamination including chemical reduction via direct push technologies; direct mixing with chemical reduction treatment chemistry; and excavation. Upon completion of active remediation, BB&E has successfully negotiated regulatory closure while incorporating appropriate land-use controls or restrictive covenants where appropriate to manage residual contamination and potential future site risks.

BB&E has significant experience in providing technical support and advisory and assistance services for federal agencies and private sector clients worldwide. BB&E has mobilized qualified teams of support professionals on a moment's notice to provide seamless, expert support at locations across the globe, bringing together unparalleled levels of expertise to deliver cost effective solutions to our clients' most challenging projects.



Specialized Experience:

- ✓ Data Gap Investigations
- ✓ Bench & Pilot Scale Testing
- ✓ Remedial Strategies
- ✓ Remedy Implementation
- ✓ In-situ Treatment Technologies
- ✓ Chemical Reduction
- ✓ Regulatory Negotiations
- ✓ Judicial Consent Decrees

Please contact Aaron Etnyre for additional information regarding BB&E's Hexavalent Chrome Remediation expertise and our ability to support your specific project needs at 248-489-9636 x303 or email aetnyre@bbande.com

