



Blount Enforcement Action

Questions and answers

May 19, 2016

On March 29, 2016, Blount, Inc. performed an emissions test of its chromium electroplating operations to demonstrate the facility would be in compliance if operating at a higher production rate. During the nine hour emissions test, Blount temporarily increased its production rate to simulate a potential change in operations. The results of the test, finalized and reported to DEQ on April 29, were above the compliance limit in their permit and in applicable federal regulations. Previous emissions tests at a lower operating rate showed Blount to be in compliance. After the test, Blount returned to lower production levels and came into compliance by adding fume suppressant and monitoring the surface tension of the plating baths. They continue to operate the scrubber in addition to using fume suppressant and monitoring surface tension.

In January 2016 Blount changed the catalyst component in its plating “bath.” The change gave Blount the ability to potentially operate its plating process at a higher production rate. The facility continued to operate at or below its previous capacity until the emissions performance test in March 2016. The purpose of the emissions test in March 2016 was to determine compliance at the new operating capacity.

After the test, Blount returned to a lower operating rate and on April 19, 2016 began adding fume suppressant to further reduce emissions. These actions returned them to compliance.

Blount also performed an additional emissions test on May 12, 2016, while operating at a lower production rate, using fume suppressant, and continued to operate its scrubber. DEQ expects results from this test to be available in the next several weeks. Based on the results from previous source tests, the effectiveness of reducing emissions through the use of fume suppressants, and the use of scrubbers as pollution control devices for the plating operations, DEQ expects the follow-up test results to demonstrate compliance with the emissions limits in the permit and NESHAP as similar testing in the past has done.

What are the public health implications of the violation?

Not all violations create public health impacts. The only period of excess emissions in this instance was during the emission test, which lasted less than nine hours.

What regulations apply?

Blount is subject to an Air Contaminant Discharge Permit (ACDP 03-2624-SI-01) and is subject to the federal National Emission Standards for Hazardous Air Pollutants for Chromium Electroplating (40 CFR Part 63 Subpart N). The NESHAP establishes emissions standards for chromium electroplating; it is those standards that Blount exceeded during their source test at higher production rates.

What are Blount’s air quality violations? Are they in compliance now?

By adding the fume suppressant, monitoring surface tension, and returning to a lower operating rate, Blount is now back in compliance with the NESHAP and its DEQ permit.

Blount has been cited for three violations:

- 1) Exceeding the chromium emission limit during the emission test performed on March 29, 2016.
- 2) Failing to notify DEQ of the change in operation (catalyst replacement).
- 3) Failing to demonstrate continuous compliance with the NESHAP for the time period between making the operational change (catalyst replacement) and first demonstrating compliance using fume suppressant.

The first violation is for the period of time during the emission test when Blount was operating at a higher production rate which resulted in higher than allowed emissions. The second violation is because Blount did not notify DEQ of the January 2016 change to its operations (catalyst replacement) that resulted in the increase in their chromium emission rate. When Blount, or any regulated company, makes a change that affects emissions they are required to provide formal notice to DEQ and receive approval prior to making the change. The third violation is for failure to demonstrate continual compliance beginning when Blount made the operational change to the new catalyst until they demonstrated compliance using fume suppressant, shortly after receiving the emission test results. Blount is currently operating in compliance and has taken all necessary corrective action steps without requiring formal compulsion from DEQ. They have also taken steps to install additional controls that are beyond current DEQ or EPA requirements.

Where do the emissions come from?

Chromium electroplating uses electricity to transfer chromium from the plating bath onto a part. Not all of the electrical energy in the process results in metal being plated onto a part. Some of the energy interacts with the plating bath and creates gasses. Those gasses rise to the surface as bubbles which, when they burst, release small particles of plating bath liquid into the air. The plating bath liquid contains chromium and is the source of the emissions.

Will DEQ be doing any ambient air monitoring around this facility?

No. Recent and previous emissions testing provide high quality and validated information about what the emissions are from the facility. DEQ is also not aware of any moss data that has been collected, analyzed or reviewed for the area around this facility.

How are these emissions controlled?

Emissions are usually controlled by using pollution control equipment (liquid scrubbers) or by reducing the surface tension of the plating bath with fume suppressants. To reduce emissions using pollution control equipment, fans draw the pollutants into a scrubber which removes those pollutants before exhausting the scrubbed air to atmosphere. Scrubbers can be up to 99.9 percent effective at reducing emissions. To reduce emissions by controlling surface tension, a “fume suppressant” is added to the bath which further reduces emissions. The use of fume suppressants can similarly be 99.9 percent effective at reducing emissions.

Blount also submitted a Notice of Intent to construct application to DEQ on April 29, 2016 seeking approval to install additional controls at the exhaust of their current pollution control devices (scrubbers). This includes HEPA filters to reduce any emissions not already captured and reduced by the scrubbers by an additional 99.9 percent. The addition of the HEPA filter controls is beyond what state or federal regulations currently require.

What is chromium electroplating?

Electroplating is a process of using an electrical current and metals dissolved in a solution to place a coating (or plate) of metal onto a metal part. As the electrical current flows through the plating bath, metals, which are dissolved in the bath, adhere to the final part. There are, broadly, two types of chromium electroplating: decorative and hard. Decorative plating places a very thin layer of chrome on a part for cosmetic purposes. Common examples of decorative chrome plating uses are bike parts, bathroom fixtures or most anything that has a shiny silver looking metal finish. Hard chrome plating places a much thicker layer of chrome onto a part with the purpose of improving durability, wear resistance or reducing corrosion. Common examples of hard chrome plating applications are items such as engine parts, pistons, hinges or other parts subject to constant wear; the chain saw cutters made by Blount in this instance.