



NASF RESPONSE AND COMPLIANCE OPTIONS

**FOLLOWING THE U.S. COURT OF APPEALS DECISION UPHOLDING EPA'S
FINAL CHROMIUM ELECTROPLATING NATIONAL EMISSION STANDARDS FOR
HAZARDOUS AIR POLLUTANTS (NESHAP) RULE**



COURT OPINION UPHOLDING EPA'S FINAL RULE

On July 21, 2015 the U.S. Court of Appeals for the D.C. Circuit denied NASF's legal challenge to U.S. Environmental Protection Agency and upheld the final federal chromium electroplating and anodizing air emissions rule in its entirety. NASF had filed a legal challenge to the final rule claiming that EPA has misapplied the requirements of the Clean Air Act (CAA) and failed to provide any credible technical support for the new standard.

In issuing its decision, the court relied upon the legal principle of granting EPA broad deference in the issuance of the final rule (i.e., giving EPA the benefit of the doubt on all issues) and found that EPA was not arbitrary and capricious in promulgating the final rule. The Sierra Club had also challenged EPA's final rule claiming that it was not stringent enough, and the court also denied this challenge in upholding the EPA rule.

As an example of the broad deference the court gave EPA in this rulemaking, NASF claimed that EPA failed to provide

any data that non-perfluorooctane sulfonic acid (PFOS)-based fume suppressants reduce chromium emissions as effectively as PFOS-based fume suppressants. EPA concluded that because non-PFOS-based fume suppressants could lower surface tension as effectively as PFOS-based fume suppressants, they would reduce chromium emissions in the same manner.

The court upheld EPA's flawed finding that the relationship between surface tension and chromium emissions does not depend on the identity of the fume suppressant (i.e., PFOS-based vs. non-PFOS based fume suppressants). The court equated this issue to not requiring EPA to prove that the boiling point of water is 212 degrees Fahrenheit in different applications. Unfortunately, the court failed to recognize that unlike water in different applications, PFOS-based fume suppressants and non-PFOS-based fume suppressants are different chemical compounds with different physical and chemical characteristics.

REQUIREMENTS OF THE FINAL RULE

With the court's ruling in late July, the association's focus in recent weeks has been focused on efforts to assure industry compliance with the requirements of the rule. As a reminder to NASF member companies that have been following these developments in the past two years, the final rule includes the following key provisions and compliance dates.

HOUSEKEEPING PRACTICES DEADLINE: MARCH 19, 2013

Facilities should have implemented the following housekeeping practices designed to minimize chromium emissions:

- substances that include hexavalent chromium must be stored in closed containers,
- take measures to minimize spills of bath solutions,
- install splash guards for spraying operations,
- clean up or contain spills within one hour of the spill,
- clean surface with HEPA vacuuming, hand-wiping, wet mopping, or hosing down and collecting in wastewater collection system,
- separate buffing, grinding and polishing operations from electroplating and anodizing processes with a physical barrier, and
- take measures to minimize fugitive dust emissions.

In its response to comments document for the rulemaking EPA provided some guidance on this issue, indicating that there is some flexibility in how these practices should be implemented. NASF has assisted members in working with EPA officials to provide further clarifications on these requirements.

LOWER SURFACE TENSION LEVELS DEADLINE: SEPTEMBER 14, 2014

Facilities can comply with the requirements of the rule by maintaining the surface tension of chromium and anodizing tanks at 33 dynes when measuring with a tensiometer (lowered from 35 dynes) or 40 dynes when measuring with a stalagmometer (lowered from 45 dynes). Non-PFOS-based fume suppressants have been effective in lowering surface tension levels to meet the new requirements. Some of these fume suppressants may require more frequent monitoring and additions to tanks to ensure ongoing compliance with surface tension levels. **Facilities can, however, choose to use the non-PFOS-based fume suppressants to lower surface tension levels to meet the new requirements of the rule without having to test for chromium emissions.**





LOWER EMISSIONS LIMITS

DEADLINE: SEPTEMBER 14, 2014

Facilities can also comply with the requirements of the rule by demonstrating compliance with the new applicable emissions limits listed below:

Plating Process	New Limits	Previous Limits
Decorative Chromium	0.007 mg/dscm	0.010 mg/dscm
Chromic Acid Anodizing	0.007 mg/dscm	0.010 mg/dscm
Small Hard Chromium	0.015 mg/dscm	0.030 mg/dscm
Large Hard Chromium	0.011 mg/dscm	0.015 mg/dscm
New Sources (All processes)	0.006 mg/dscm	0.015 mg/dscm

Facilities can demonstrate compliance with an existing stack test and operating control equipment effectively within an acceptable range of pressure drop. Facilities may be required to conduct a new stack test if the process at the facility has changed since the most recent stack test or if they need to implement new controls or work practices in order to meet the new emission limits.

Even though EPA stated that the new emission limits could be met easily with the addition of fume suppressants, this is not necessarily the case because the existing non-PFOS-based fume suppressants (although effective in lowering surface tension levels) have not demonstrated the ability to reduce chromium emissions with the same level of effectiveness as PFOS-based products. Regardless, facilities that choose to demonstrate compliance with the new emission limits must implement those controls and work practices that are necessary to meet the new limits – depending on the facility, meeting the new limits may include the use of HEPA filters.

PHASE OUT OF PFOS FUME SUPPRESSANTS DEADLINE: SEPTEMBER 21, 2015

In the final chromium electroplating NESHAP rule, PFOS-based fume suppressants **can no longer be added** to chromium electroplating and anodizing tanks subject to the chromium electroplating NESHAP after September 21, 2015. 77 Fed. Reg. 58220 (September 19, 2012).

PFOS-based fume suppressants **can remain in the tanks** after September 21, 2015, but cannot be added to the tanks after that date. In the regulation, PFOS-based fume suppressant is defined as a fume suppressant that "contains one percent or greater PFOS by weight." In addition, as part of a separate voluntary Stewardship Program with EPA, the global manufacturers of these compounds have agreed to phase out the sale of PFOS-based fumes suppressants by December 31, 2015.

Again, despite EPA's claims, the non-PFOS-based fume suppressants that are effective in lowering surface tension levels are not yet proven effective in reducing chromium emissions. In the Federal Register preamble to the final chromium electroplating NESHAP rule, EPA acknowledged potential concerns regarding the use of non-PFOS-based fume suppressants and stated that it:

agrees that some electroplaters of highly specialized products may need to perform additional testing in order to integrate the use of non-PFOS fume suppressants and that this testing may require a longer time commitment compared to other products. Nevertheless, we believe that this testing can be accomplished by the compliance date, which is 3 years after the date of publication of this **Federal Register** notice. Additionally, the Clean Air Act allows facilities to apply for an extra year if needed for compliance. Therefore, facilities could have up to 4 years to comply, which should be adequate time to resolve any remaining issues associated with the switch to non-PFOS suppressants. 77 Fed. Reg. 58220, 58237.

Facilities that rely on the use of fume suppressants to meet the applicable chromium emissions limits may have to request an extension of the time for phasing out PFOS-based fume suppressants. Even though the new chromium electroplating NESHAP rule does not include a provision for extending the phase out of PFOS fume suppressants, the general provisions of the EPA regulations for controlling air emissions state that, "[e]xcept as otherwise provided in section 112 of the Act, in no case will the compliance date established for an existing source in an applicable subpart of this part exceed 3 years after the effective date of such standard." 40 CFR § 63.6(c).

Section 112 of the CAA provides for a one-year extension, as follows:

[t]he Administrator (or a State with a program approved under subchapter V of this chapter) may issue a permit that grants an extension permitting an existing source up to 1 additional year to comply with standards under subsection (d) of this section if such additional period is necessary for the installation of controls. CAA § 112(i)(3)(B).

In addition, the CAA also provides for a two-year extension based on national security interests:

[t]he President may exempt any stationary source from compliance with any standard or limitation under this section for a period of not more than 2 years if the President determines that the technology to implement such standard is not available and that it is in the national security interests of the United States to do so. An exemption under this paragraph may be extended for 1 or more additional periods, each period not to exceed 2 years. The President shall report to Congress with respect to each exemption (or extension thereof) made under this paragraph. CAA § 112(i)(4).

EPA officials have indicated that requests for an extension of time to phase out PFOS-based fume suppressants should be submitted to the appropriate air officials in the EPA Regional office. NASF can assist member companies in identifying contacts in regional offices.





CALIFORNIA CHROMIUM ELECTROPLATING RULE

The State of California has a separate regulation to control chromium emissions from electroplating operations. Although the state regulation does not provide for compliance by meeting a surface tension level, the state has approved the use of certain fume suppressants that have demonstrated the ability to meet the applicable state emission limits.

Chromium electroplating facilities in California can use the fume suppressants approved by the state to comply with the state regulations. Unfortunately, the list of approved fume suppressants does not yet include any non-PFOS-based fume suppressants. In addition, many facilities in California have air permit conditions

that specify the use of control equipment and fume suppressants.

Accordingly, until a non-PFOS fume suppressant is approved for use by the State of California, facilities in California that rely on one of the approved PFOS-based fume suppressants to demonstrate compliance with the state chromium emissions regulation will have to find an alternative means to demonstrate compliance when PFOS-based fume suppressant can no longer be used or are no longer available, or obtain administrative relief from the state until the permit conditions can be revised. NASF is working with the State of California and U.S. EPA to find a reasonable solution to accommodate facilities in California.

CONCLUDING THOUGHTS ON COMPLIANCE OPTIONS

Facilities should be in compliance with the housekeeping practices, the surface tension levels, and the emission limit provisions in the new chromium electroplating and anodizing rule. After September 21, 2015, facilities can no longer add PFOS-based fume suppressants to tanks subject to the chromium electroplating NESHAP.

Facilities may use non-PFOS fume suppressants to lower surface tension levels to meet the new standard. Those facilities that cannot use non-PFOS fume suppressants to demonstrate compliance and those facilities in California that do not have approved non-PFOS fume suppressants may have to install control equipment to meet the applicable emission limits or rely on some administrative relief from U.S. EPA or the state.

While facilities may seek a permit to grant a one-year extension of the PFOS-based fume suppressant phase out, the extension appears to be limited to allow a facility additional time to install controls – this may include time needed to “install” an effective non-PFOS based fume suppressant or pollution control equipment. In addition, the Presidential exemption appears to be limited to situations in which the technology to meet the standard is not available, and it must also be in the national security interests of the U.S. (which may be applicable to certain defense applications). Regardless of whether the standard for the exemptions can be met, PFOS-based fume suppressants may not be commercially available after December 31, 2015.

ADDITIONAL INFORMATION

If you have any questions or would like additional information regarding the new requirements of the chromium electroplating and anodizing NESHAP and potential compliance options, please contact Jeff Hannapel with NASF at jhannapel@thepolicygroup.com, or Christian Richter at crichter@thepolicygroup.com.

