techniques, as is further discussed in section V.F.

3. Selection of MACT Floor/MACT for Chromium Anodizing Tanks

Three commenters questioned the MACT floor established by the EPA for sources performing chromium anodizing. The commenters stated that it did not appear that the EPA had sufficient data to perform a MACT floor analysis for these sources. Commenters stated that chromium anodizers and decorative chromium electroplaters that cannot use fume suppressants should be considered separately, and the MACT floor for such sources should be based on packed-bed scrubbers. Also, according to six commenters, the standard for chromium anodizing tanks is not achievable in all situations, especially when an add-on control device is used in lieu of fume suppressants. One commenter stated that unless the standard for chromium anodizing tanks controlled with add-on control devices is set at 0.03 mg/dscm, sources will have to use an add-on control device followed by a fiber-bed mist eliminator to achieve the emission limit.

The MACT floor for chromium anodizing sources was based on information available to the EPA on the source category. Information on the industry was obtained through survey questionnaires to both industry representatives and control system vendors, site visit reports, and available emission data. Although information was not available from all sources in the category, the EPA believes the information was sufficient to satisfy the requirements of section 112(d)(3) of the Act. The survey responses, which included some aerospace facilities, indicated that fume suppressants were the control technique used predominantly in the industry. Section 112(d)(3) of the Act prohibits the EPA from establishing a standard that is any less stringent than the MACT floor for a category or subcategory of sources. No technical reason was provided by industry, nor is one known to the EPA, for creating a separate subcategory of sources for which fume suppressants are not technically feasible. Thus, all new and existing sources performing chromium anodizing must meet either an emission limit of 0.01 mg/dscm or maintain the surface tension specified in the rule. The EPA believes that the revised chromium emission limit of 0.01 mg/dscm for chromium anodizing tanks in the final rule is achievable by sources using add-on control technology. Alternatively, the EPA believes that the compliance timeframe for existing

sources performing chromium anodizing in the final rule (2 years) will allow these sources to further investigate the feasibility of using fume suppressants.

E. Selection of the Format of the Standard

Seven commenters stated that the format of the standard should be expressed as a process emission rate in milligrams of chromium emitted per amp-hour of operation (mg/amp-hr), which would be consistent with California rules, rather than as an emission concentration (mg/dscm). According to the commenters, concentration-based standards are flawed because they can be circumvented by dilution, concentration can vary from system to system, and source test data indicate that outlet concentrations vary widely for different inlet conditions. Several commenters also pointed out that emissions should be correlated to production rates because chromium emissions increase proportionately with increased current. Two other commenters suggested that the final rule specify acceptable process emission rates to avoid an equivalency evaluation.

Based on the Agency's evaluation, the available test data indicate that a process emission rate format will not ensure consistent compliance with the control level required by the standard. The concentration data collected by the EPA for the composite mesh-pad and packed-bed scrubber systems do not overlap; that is, composite mesh-pad systems consistently outperform packed-bed scrubbers. The process emission rate data, on the other hand do overlap; even though composite meshpad systems are a superior technology to packed-bed scrubbers, both sometimes achieve the same process emission rate. This occurs because two sources can be using the same control technology and achieving the same outlet emissions concentration, but the one with the higher current loading will have a lower process emission rate. Commenters contend that this is reasonable because the production rate, as measured in ampere-hours, is related to emissions. However, the amount of current supplied to the tank is an indicator of the amount of uncontrolled emissions from the tank, not the controlled emission level from the tank. Because of the differences in process emission ratebased and concentration-based standards, and the source-specific nature of process emission rate standards, the EPA cannot cite an equivalent process emission rate in the final rule.

Regarding the issue of circumvention of the standard through dilution of the emission stream, the EPA believes that dilution of the gas stream can be determined by reviewing test and permit data for a facility. The outlet air flow rate measured during testing should approximate the design air flow rate for the control system reported on the permit application. If the two values differ significantly, then an inspection of the control system can be made to determine if dilution air is being introduced. It is also possible for a facility to dilute the inlet gas stream to the control device by designing a system to ventilate the electroplating tanks at air flow rates substantially above those required for adequate ventilation. However, the increased installation and maintenance costs associated with such a system would outweigh the costs of complying with the standard without dilution. Further, §63.4(b) of the General Provisions expressly prohibits dilution as a means to comply with an emission limit. Therefore, concerns of dilution of the air stream were not considered to outweigh the benefits of a concentration-based format for the standard.

Eight commenters disagreed with the EPA's decision to base the standard on emissions of total chromium rather than on emissions of hexavalent chromium. Two commenters suggested allowing sources to demonstrate compliance by testing for hexavalent chromium in lieu of total chromium.

The EPA decided to base the standard on total chromium because the HAP list identifies all chromium compounds, not just hexavalent chromium compounds. In addition, based on testing conducted by the EPA for these source categories, the available test data indicate that hexavalent and total chromium levels in the emission stream were essentially the same for chromic acid baths (varying within ± 10 percent in most instances). Because the EPA data base is mainly comprised of data measured as hexavalent chromium, the final rule does allow all sources using chromic acid baths to demonstrate compliance by measuring either hexavalent or total chromium for all sources.

F. Selection of the Emission Limits

Many commenters stated that the emission limit based on the use of composite mesh-pad systems should be changed. Three commenters suggested lowering the emission limit that is based on the use of composite mesh-pad systems, stating that the EPA did not test the best systems available, and suggested levels ranging from 0.001 mg/ dscm to 0.009 mg/dscm. Other