

Q&A on HVLP-Equivalent Spray Gun Determinations in Iowa

Miscellaneous Surface Coating/Auto body NESHAP
(40 CFR Part 63, Subpart HHHHHH), also known as "6H"

Questions:

The spray gun I'm using has a transfer efficiency greater than 65%. Does that mean the gun is compliant with the 6H regulation? Are all "reduced pressure" spray guns approved as HVLP-equivalent in Iowa for 6H purposes?

Answers:

The 6H spray gun requirements don't specify a minimum transfer efficiency for spray guns. (Rule text is pasted below.) The 6H rule requires that facilities use an HVLP, airless, or air-assisted spray gun, electrostatic application, or an "equivalent technology." If facilities want to use a paint gun technology that's not listed in 6H, they need to provide sufficient data to Iowa DNR or EPA to show that the gun they want to use will achieve a transfer efficiency comparable to one of the listed technologies. 6H specifies the methods to follow to show that a spray gun is equivalent to HVLP. The methods can be found on the South Coast Air Quality Management District website at <http://www.aqmd.gov/permit/spraytransferefficiency.html>

As of March 2011, Iowa DNR has received inquiries about the following paint guns:

Approved:

- ITW DeVilbiss GFG-670 (Plus): This gun has been approved as HVLP-equivalent for one facility in Iowa at this time; other facilities that wish to use this gun should request approval. DeVilbiss has not requested statewide approval for this gun in Iowa.
- SATAjet 3000 B RP: the "B" denotes that this is a gravity-fed gun. This gun has been approved as HVLP-equivalent for one facility in Iowa at this time; other facilities that wish to use this gun should request approval. SATA has not requested statewide approval for this gun in Iowa.

Not approved:

- SATAjet 1000 K RP: the "K" denotes that this is a pressure-fed gun. This gun has not been approved as HVLP-equivalent for any Iowa facilities. Record could not be found of this gun being approved as HVLP-equivalent for other states either.
- SATAjet 3000 K RP: the "K" denotes that this is a pressure-fed gun. This gun has not been approved as HVLP-equivalent for any Iowa facilities. Record could not be found of this gun being approved as HVLP-equivalent for other states either.

HVLP (or equivalent) requirement from 6H:

40 CFR 63.11173(e)(3) All spray-applied coatings must be applied with a high volume, low pressure (HVLP) spray gun, electrostatic application, airless spray gun, air-assisted airless spray gun, or an equivalent technology that is demonstrated by the spray gun manufacturer to achieve transfer efficiency comparable to one of the spray gun technologies listed above for a comparable operation, and for which written approval has been obtained from the Administrator. The procedure used to demonstrate that spray gun transfer efficiency is equivalent to that of an HVLP spray gun must be equivalent to the California South Coast Air Quality Management District's "Spray Equipment Transfer Efficiency Test Procedure for Equipment User, May 24, 1989" and "Guidelines for Demonstrating Equivalency with District Approved Transfer Efficient Spray Guns, September 26, 2002" (incorporated by reference, see §63.14 of subpart A of this part). The requirements of this paragraph do not apply to painting performed by students and instructors at paint training centers. The requirements of this paragraph do not apply to the surface coating of aerospace vehicles that involves the coating of components that normally require the use of an airbrush or an extension on the spray gun to properly reach limited access spaces; to the application of coatings on aerospace vehicles that contain fillers that adversely affect atomization with HVLP spray guns; or to the application of coatings on aerospace vehicles that normally have a dried film thickness of less than 0.0013 centimeter (0.0005 in.).