

IWRC Painter Training

Case Study



The Client

Omega Cabinetry, a division of MasterBrand Cabinets, Inc.

The Need

Regulatory compliance – painters must be trained annually to meet the wood furniture NESHAP (40 CFR 63, Subpart JJ)

The Solution

One-day customized painter training to meet the requirements of the regulation.

The Process

Omega's initial request to the IWRC for painter training was specific to meeting the training requirement for regulatory compliance. Six painters from the Waterloo, IA facility made the short trip to the IWRC's training facility in Cedar Falls, IA in June 2013.

Each painter went through a customized Omega/IWRC Painter Training process. At the start of the training, all six painters sprayed two parts. Once the pre-test was complete, the painters went through classroom, in-booth and VirtualPaint instruction. At the end of training, the painters were back in the booth to test their hand at the parts again for a post-test.



Like all wood furniture manufacturers, Omega Cabinetry must meet applicable environmental regulations. The Wood Furniture National Emissions Standard for Hazardous Air Pollutants (NESHAP) requires personnel involved in finishing to be trained annually.

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The Results

By the end of training, the Omega painters successfully met the training requirements for the NESHAP and were able to recognize improvements in their efficiency. Data was tracked from both the pre- and post-tests in order to establish a baseline and quantify training outcomes. Two main data sets were recorded - the amount of time it took to spray the parts and the transfer efficiency of the parts sprayed.

RESULT #1: REDUCE TIME

For any manufacturing facility, time is critically important. While a quality finished product is the ultimate end goal, everything that happens up to that point takes time. Any opportunities to reduce time saves on the bottom line.

Part 1:
3.52%

Part 2:
2.54%

In comparing pre- and post-test results, Omega painters were able to reduce the time it took to spray both parts by a total of over 6%

RESULT #2: TRANSFER EFFICIENCY INCREASE

The other data set, transfer efficiency, also plays a critical role in production. Transfer efficiency is simply how much coating lands on the intended target. Even in optimal conditions, not all coating that comes out of the spray gun will land on the part due to overspray and other factors, but ideally this is kept to an absolute minimum.

Part 1:
33.4%

Part 2:
27.5%

In comparing pre- and post-test results, Omega painters were able to increase their transfer efficiency significantly on both parts.

Subpart JJ - National Emission Standards for Wood Furniture Manufacturing Operations Training must include:

- application techniques
- cleaning and wash-off procedures
- equipment setup and adjustment to minimize finishing material usage and overspray
- cleanup waste management

