

**April 13, 2015**

## It's Time for Spring Cleaning

It is time to get generators and motors ready for the long hot summer. For many this includes cleaning their critical motors and generators for the upcoming summer months.

Carbon Dioxide (CO<sub>2</sub>) (Dry Ice) cleaning has been gaining in popularity for many large machine users to accomplish this dirty and time consuming task.

Dry Ice blast cleaning for generators and motors can be used for:

- Removal of carbon deposits
- Removal of grease/oil build up
- Cleaning of buss bars, Stator, Stator Core, Rings, Windings, and other components

Among the advantages reported include:

- Reduced chemical usage (reduced V.O.C.)
- Increased speed in the cleaning process
- Dry ice blast is non-abrasive compared to conventional methods
- No drying time

Dry ice blasting is best used for loose service contamination on hard non-porous surfaces. Depending on the skill of the operator, the contaminates are reduced considerably on the first pass and nearly eliminated after two or three more passes. Dry ice blasting can be completed much faster than other conventional processes using walnut shell, corn cob, or baking soda as an abrasive. While the actual time spent performing the blasting (cleaning) may be longer, the minimal drying time and clean up once the work is completed makes this a much more efficient option for cleaning your machines.

While dry ice blasting has several advantages it also has its limitations. The blasting requires a line of sight for the operator, and some areas of a machine cannot be cleaned even with the many new cleaning nozzle designs available. So there most likely will always need to be some machine disassembly.

The last possible disadvantage of dry ice blasting is the *skill level* of the operator. With dry ice blasting if the CO<sub>2</sub> pellet size is too large and/or the pressure too high the process becomes too aggressive and can damage insulation and coating systems. So verification of your service provider's qualification and training program for their operators is a must prior to bringing this cleaning method into your plant.

If you or someone in your organization who is responsible for coordinating maintenance/repair services for your facility need additional training check out Richard Love Associates' Motor Shop Assessment workshop held at PdMA on August 11-13, 2015. Go to [http://www.pdma.com/pdfs/Training/MOTOR\\_SHOP\\_ASSESSMENTS\\_PLUS\\_MOTOR\\_REPAIR\\_TESTS\\_INTERPRETATION.pdf](http://www.pdma.com/pdfs/Training/MOTOR_SHOP_ASSESSMENTS_PLUS_MOTOR_REPAIR_TESTS_INTERPRETATION.pdf).

You are invited to submit an Electric Motor Testing Tip of your own and receive a free PdMA<sup>®</sup> mug or hat if we publish it! Contact Lou at 813-621-6463 ext. 126 or [lou@pdma.com](mailto:lou@pdma.com).

Copyright 2015 PdMA<sup>®</sup> Corporation. All rights reserved. The PdMA Tip of the Week is produced by PdMA. PdMA shall not be liable for any errors or delays in the content, or for any actions taken in reliance thereon.