

Auto Body Shops Making the Switch to Waterborne Base Coats

Len Roll, Reconditioning Manager for DAA Northwest Auto Body Center is very pleased with the results they are seeing with their recent conversion from solvent-based to waterborne paints.

As part of their corporate operations, DAA Northwest operates a 20,000 square-foot auto body and paint center at their West Plains Facility. It is one of Spokane's largest automotive collision repair centers. We asked Len about his shop's recent conversion to waterborne base paints and what advice he might share with others who may be contemplating a similar change.

When and why did you make the switch to waterborne paints?

In February, 2009, we began using the new paint. Our company strives to be a leader in the industry, both in the environment and technology arenas. We were searching for better, healthier conditions for employees and for a quality product that would provide a better color-match.

What initial concerns did you have prior to the switch and have those concerns been addressed?

Color match was a key concern, as were concerns regarding costs, training and equipment. What we found was a more durable, easier-to-apply product with a much better color-match. We've also been able to use most of our existing equipment. As far as training our paint-

ers, the manufacturer we chose provided a tremendous amount of training and support.

How long did it take to make the switch?

We took several months to research the various products and manufacturers. Once the decision was made, the conversion was short—just a few months. Employee training is an ongoing investment. Through experience and training, our painters are learning to mix the appropriate quantities of paints and toners. Our manufacturer, Sherwin-Williams, provides excellent training, both on-site and at their training facility.

What benefits have you realized since making the switch?

There have been several. The metallic paints used for late model cars are more difficult to match with solvent-based paints. The waterborne paint provides superior color matching and our customers have noticed and they have expressed their satisfaction.

Our new paint, AWX Waterborne Paint System, lists up to a 96% decrease in VOC-content versus solvent-based paint. This is not only better for our environment, it enhances the health and safety of our employees. It is important to note that the use of personal protection



DAA Northwest Auto Body Center made the switch to water-borne paints. Employees and customers are very pleased with the results.

and safety equipment is still required and necessary.

As far as cost savings, it's been about the same. The waterborne paint costs more per ounce, but it covers about 30% better. Instead of applying three to seven coats to get good coverage, we now only need apply one to three coats. It is much more efficient because fewer applications results in less waste from overspray and reduced labor costs in applying the material.

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What about the need for new equipment. Has this been the case?

We did invest in an air filtering and drying system because water-borne paint is more sensitive to moisture, oils and other contaminants found in compressed air.

We've been able to use our existing spray guns which we've retrofitted with stainless steel needles, nozzles and air caps. With water-based paint, you need to be aware of rust and corrosion that aren't issues with solvent-based paints.

How have your employees and customers responded?

Very positively. Our employees welcomed the change. There has been a learning curve with the new product, especially getting used to the fact that you use so much less of the product to cover the same area than we used to with solvent based paints.

At first our customers were a bit cautious and curious. On our Customer Satisfaction Surveys, we've received lots of positive comments, particularly about the color-match.

What advice would you give someone who is considering a move to water-borne paints?

Involve your employees in the process. Our employees were involved in whole process, including picking the product. They've been key players in making this change successful through their input and buy-in.

Take the time to look at multiple paint manufacturers, don't just settle for who you may be working with now. Compare which products might work best in your shop environment with your equipment. The manufacturer we ended up selecting conducted a comprehensive facility review, analyzed our booth's air system, application equipment, and mixing and cleaning equipment and offered us three scenarios: good, better and best. These three approaches have helped us transition over time, from good to better and now to best with our recent equipment purchase of the Tsunami—the filtering and drying system for our compressed air.

DAA firmly believes that we've got a better product that is also healthi-

er for our employees. We feel that eventually everyone will be making the switch from solvent to water-borne paints, either voluntarily or by regulation. Staying ahead of the curve is what we like to do. ■



DAA Northwest Auto Body Center invested in a Tsunami—a filtering & drying system for compressed air.

Editor's Note: A special thanks to Len Roll for his time, expertise and willingness to share his experience.

Ask Spokane Clean Air

Q: After my business was inspected by Spokane Clean Air, I received a Compliance Status Report. On the report, there were a few Corrective Actions noted need to be done. What are Corrective Actions and how do they differ from a Notice of Violation?

A: At the conclusion of most routine inspections, Spokane Clean Air inspectors will issue a Compliance Status Report (CSR). Occasionally, if compliance issues are found, there may be items which need corrective action. A due date for completion is usually given for each

corrective action required and a request that Spokane Clean Air be notified upon each completion. Failure to meet a due date can lead to a Notice of Violation (NOV) being issued.

So, it is important that businesses address each compliance issue by the due date and notify the inspector of the action taken. Occasionally a receipt for the work done is required to show that the compliance issue was actually addressed. A follow-up inspection may also be conducted. If more time is needed, the business needs to contact the inspector before the due date to request an extension. There is no guarantee that an extension will be granted.

In some cases, a CSR may not be issued in the field. The inspector may send a letter in the mail. In some instances, a NOV may be issued for a compliance issue that may still have a corrective action which needs addressing. ■

Control Dust—Prepare Now, Avoid Fines

In 2009, Spokane Clean Air received 126 complaints about excessive dust emissions. Main sources of dust (particulate matter) include paved and unpaved road surfaces, construction and demolition activities, parking lots, storage piles, and handling and transfer of materials.

Agency inspectors respond to complaints and conduct surveillance throughout the county, and will perform on-the-spot inspections if dust problems are observed. Documented violations may result in enforcement action, including civil penalties.

For first-time offenses, the company may receive a warning to correct the problem. Corrective measures may include deploying water trucks more frequently, hiring sweeper trucks, applying chemical soil stabilizer, seeding with compost/mulch, and training employees on dust control requirements. In some cases, even if it's a first offense, a Notice of Violation (NOV) may be issued to the company. NOVs are typically followed by an assessment of civil penalty which starts at about \$1,000 and can reach up to \$10,000 per day, per violation, depending on factors such as the company's compliance history and any financial benefit gained by not adequately controlling the dust from the outset.

Does dust really cause problems?

Dust is an air quality concern, especially during the dry summer months. If not controlled, dust can be a health hazard and a public nuisance. When inhaled, fine dust particles travel deep into the lungs, increasing breathing problems, damaging lung tissue, and aggravating existing health problems.

How to comply and avoid penalties

The best way to avoid costly violations is to monitor your operations and to plan for dust control.

Know the rules

- ✓ precautions must be taken to prevent particulate matter from becoming airborne
- ✓ depositing particulate matter on the property of others is prohibited
- ✓ dirt and mud must be removed from equipment and vehicles before movement onto paved public roads
- ✓ dirt and mud tracked onto paved public roadways must be promptly removed

Minimize dust

Typically, one or more of the following strategies is recommended for minimizing dust emissions:

- ✓ apply water or chemical dust suppressants
- ✓ minimize activities during windy conditions
- ✓ use covered chutes, covered containers, or collection and control equipment when handling, transferring, and/or storing dusty materials
- ✓ minimize free fall distances for dusty materials
- ✓ vegetate or mulch dusty areas
- ✓ maintain adequate freeboard and cover loads when transporting dusty materials

- ✓ keep paved surfaces clean to minimize re-entrainment of dust into the air
- ✓ restrict access or limit vehicle speeds on unpaved areas to 15 mph or less

Minimize tracking

- ✓ pave or gravel unpaved surfaces
- ✓ pave or install gravel buffer areas at exits
- ✓ clean vehicle tires and undercarriages before traveling on paved roads (wash stations)
- ✓ promptly clean up material that has been tracked onto paved roadways (wet flush/spray off, street sweep/vacuum)
- ✓ minimize free fall distances for dusty materials
- ✓ vegetate or mulch dusty areas
- ✓ maintain adequate freeboard and cover loads when transporting dusty materials
- ✓ keep paved surfaces clean to minimize re-entrainment of dust into the air

For additional information on dust control and to order a complimentary guidebook on Controlling Dust Emissions, please call 477-4727. ■



Regulation & Program Update

Revisions to Article X - Fees and Charges—Spokane Clean Air is proposing to amend its Regulation I, Article X – Fees and Charges. Revisions will also be reflected in applicable fee schedules. The proposed revisions are available at www.spokanecleanair.org under "Hearings & Notices" or call 477-4727. Comments on the proposed revisions are being accepted through July 15, 2010, addressed to: mholmquist@spokanecleanair.org or SRCAA, Attn: Matt Holmquist, 3104 E. Augusta Ave., Spokane, WA 99207.

Proposed Revisions to Asbestos Control Standards—Spokane Clean Air is proposing to amend its Asbestos Control Standards, Article IX of Regulation I, the Notification Waiting Period and Fees in Section 10.09 of Regulation I, and the Asbestos Fee Schedule. The proposed revisions are available at www.spokanecleanair.org, under "Hearings & Notices" or call 477-4727. Public comments on the proposed revisions are being accepted through July 6, 2010, addressed to: mholmquist@spokanecleanair.org or SRCAA, Attn: Matt Holmquist, 3104 E. Augusta Ave., Spokane, 99207.

Revised Nuisance Rule, Effective May 3—Amendments to Spokane Clean Air's Regulation I, Article IV were approved by the agency's Board of Directors in April. The revised rule, effective May 3, is available online at www.spokanecleanair.org/regs.asp or call 477-4727 to request a copy.

Federal Rules: Metal Fabrication and Finishing Facilities—Some facilities are subject to a new EPA regulation, 40 CFR 63 Subpart XXXXXX National Emissions Standards for Hazardous Air Pollutants (NESHAP) Area Source Standards. This regulation applies to those businesses primarily engaged in the operation in one of the following nine source categories:

Electrical and Electronic Equipment Finishing Operations, Fabricated Metal Products, Fabricated Plate Work, Boiler Shops, Structural Metal Manufacturing, Heating Equipment except Electrical, Industrial Machinery and Equipment Finishing Operations, Iron and Steel Forging, Primary Metals Products Manufacturing, Valves and Pipe Fittings.

This rule also sets requirements for the following five industrial processes if the process uses or emits cadmium, chromium, lead, manganese and nickel (Note: An Initial Notification must be submitted by those businesses primarily engaged in the nine source categories listed above, even if none of these regulated processes is currently being performed).

Dry Abrasive Blasting, Dry Grinding and Dry Polishing with Machines, Dry Machining, Spray Painting (Note that if you are subject to this rule, you are not subject to Subpart HHHHHH – National Emission Standards for Hazardous air Pollutants: Paint Stripping and Miscellaneous Surface Coating Operations at Area Sources) and Welding.

Existing Sources (in existence before April 3, 2008) must be in compliance with the rule by July 25, 2011; an Initial Notification must be submitted by July 25, 2011; a Notification of Compliance Status by November 22, 2011

New Sources (those for which construction or reconstruction began on or after April 3, 2008) must be in compliance with the rule upon startup, and the Initial Notification and Notice of Compliance Status must be submitted no later than 120 days after startup.

Contact Chuck Studer, 477-4727, ext. # 107 for more information. ■

Five Reasons to Schedule a Pollution Prevention Visit Today!

1. Lower Operating Costs.

Many businesses that implement pollution prevention (P2) protocols save money in product and labor costs.

2. Reduce Compliance Costs.

Some businesses are able to reduce air pollution emissions, which may reduce registration fees with Spokane Clean Air.

3. Reduce Liability.

Lowering or eliminating the use of hazardous products may reduce employee and community liability.

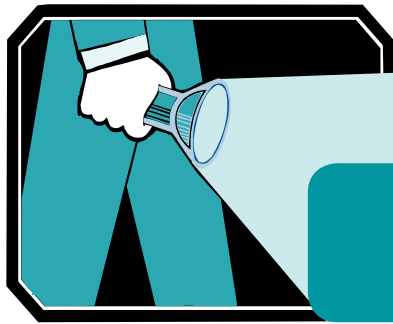
4. Increase Productivity.

Some P2 protocols improve the efficiency of the manufacturing process, increasing worker productivity.

5. Risk-free.

Spokane Clean Air's consultant cannot issue a Notice of Violation for issues observed during the consultation. Any areas that need improvement will be identified to help the business work toward a compliance timeline.

Call Margee Chambers to schedule your consultation: 477-4727, ext. 114.



Technology Spotlight

Cleaner, Greener Dry Cleaning

Solvents used in dry cleaning often contain hazardous or toxic air pollutants so these operations are rigorously monitored for compliance with air quality requirements. Like many other industries, new technologies have emerged in dry cleaning that can significantly reduce harmful emissions.

The main air quality concern with dry cleaning is the use of the chemical perchloroethylene or PERC. PERC is a hazardous air pollutant and a known cancer-causing chemical in animals. Chronic exposure to PERC has been linked to damage to the central nervous system and to a lesser extent, the lungs, liver and kidneys. In addition to PERC, petroleum solvents are also used, such as Stoddard solvent (mineral spirits).

Petroleum and petroleum-derived hydrocarbon solvents contain volatile organic compounds (VOCs) and are highly flammable. VOCs are a key contributor to the the formation of ground-level ozone, an air pollutant most prevalent during the summer.

For nearly 20 years, dry cleaners have been required to ensure that solvent vapors in the dryer exhaust pass through a refrigerated condenser to reclaim any solvents in the exhaust air stream. This requirement significantly reduced emissions from dry cleaning, though emissions still occur when the machine doors are opened to remove clothing, when filters are changed, through machine leaks and spills and any time solvent containing materials are left in open containers.

There are some dry cleaning facilities in our area that have invested in new technologies which reduce or eliminate the use of hazardous solvents. As a result, some cleaners no longer have to register with or be inspected by Spokane Clean Air.

In 1998, Beacon Cleaners switched to DF-2000, a synthetic hydrocarbon solvent that is used as an alternative to PERC.

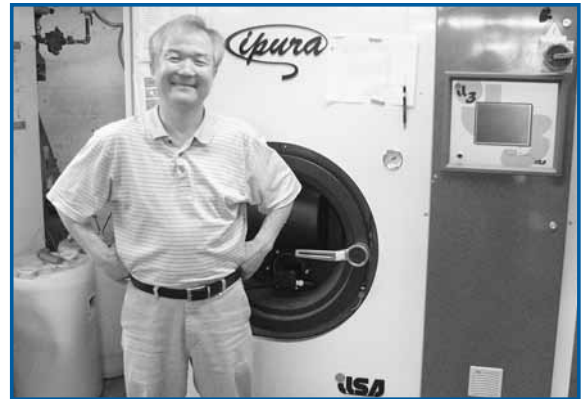
They installed new state-of-the art Fibromatic dry-to-dry closed loop machines. Owner Hi Bum Kim reported that not only were the odors gone, but that DF2000 cleaned better, was gentler on fabrics, and clothes came out softer and with less fading.

The latest technology in dry cleaning is a self-contained system that minimizes or eliminates solvent distillation and extraction processes and doesn't require steam, thus reducing cleaning solvent use.

Dae Uh, owner of Scollards Cleaners, replaced one of his two PERC machines with a Columbia Ipura 440S hybrid class dry cleaning machine that also uses DF2000. He's planning to replace the other machine in the near future. When he does, it is likely that his facility will no longer be required to register with Spokane Clean Air, which means no more inspections or registration fees.

Features of the cleaning machine:

- ▶ The machine is a self-contained



Scollard's Cleaners owner Dae Uh, invested in a cleaner, greener dry cleaning machine.

system that doesn't require steam or solvent distillation and has improved solvent recovery.

- ▶ Air is used for application/dispersion of the solvent into the drying drum.

- ▶ The machine is designed to extract and recover solvent by heated air and filtration processes, instead of traditional steam or distillation processes.

- ▶ Reported cleaning of up to 4,000 pounds of clothes per gallon of cleaning solvent.

- ▶ Expected annual solvent usage for the Ipura 440S machine is about five gallons, with expected annual emissions of 32 lbs of VOC. This compares to a previous usage of 110 gallons of PERC and 1,486 lbs of VOCs. This equates to huge reduction in solvents use and emissions!

Kudos to all of the dry cleaning facilities who've made the switch away from PERC and in doing so, are providing greener cleaning options for consumers. ■

UPDATE

Spokane Regional Clean Air Agency
3104 E. Augusta Avenue
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Air • Quality • Calendar

Jul 1 Board of Directors meeting, 9:30 a.m., Spokane Clean Air conference room, 3104 E. Augusta Avenue. The meeting agenda is available at www.spokanecleanair.org or call 477-4727.

Aug 5 Board of Directors meeting (details above).

Sep 2 Board of Directors meeting (details above).

Spokane Regional Clean Air Agency Board of Directors:

Rose Dempsey, Chair, City of Spokane Valley
Bonnie Mager, Vice Chair, Spokane County Commissioner
Tom Brattebo, Member-at-Large
Jeff Corkill, City of Spokane Representative
Edward "Chuck" Crockett, Small Cities & Towns Representative

UPDATE is published by the Spokane Regional Clean Air Agency as part of its Compliance Assistance Program. Send article ideas and comments to Lisa Woodard, Editor, lwoodard@spokanecleanair.org.



3104 E. Augusta Avenue
Spokane, WA 99207
PHONE: (509) 477-4727
FAX: (509) 477-6828
Web Address:
www.spokanecleanair.org

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Generator & Boiler Requirements

By Deanna Clarkson, Air Quality Specialist

Generators and boilers that have potentially significant air emissions must register with Spokane Clean Air and pay annual fees. In addition, facilities that modify or install generators and boilers that meet the criteria for registration must go through a Notice of Construction (NOC) approval process. These requirements are separate from any city or county permitting process.

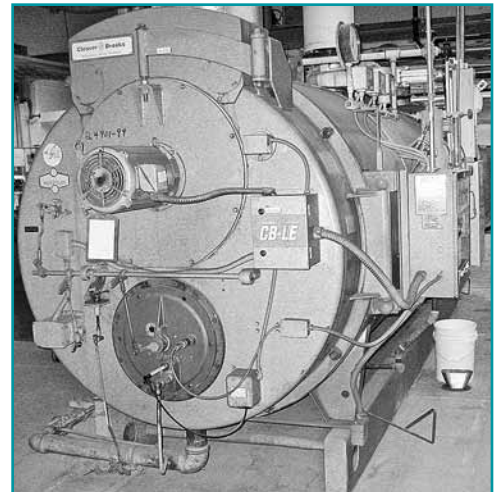
Generators and boilers that are subject to registration include, but are not limited to, those described below:

- Generators used for standby, back-up operations only, with internal combustion engines rated at or above 500 brake horsepower
- Generators which are integral to powering a stationary source such

as rock crushing or woodwaste grinding, with stationary internal combustion engines rated at 100 brake horsepower or more

- Boilers using natural gas or other gaseous fuel with per unit maximum heat inputs greater than or equal to 4 million BTU per hour
- Other fuel-burning equipment, such as waste oil burners and heat treat ovens, may be subject to registration as well

For complete information about sources of air emissions that are subject to registration, review Spokane Clean Air Regulations or contact Spokane Clean Air at 477-4727 or info@spokanecleanair.org. ■



Pictured above is a natural gas-fired boiler at Whitworth College, which produces approximately 8 MMBTU/hour.

Boilers using natural gas or other gaseous fuel with per unit maximum heat inputs of 4 MMBTU/hour or greater must be registered with Spokane Clean Air.