

US EPA ARCHIVE DOCUMENT

Final Report  
EPA 2002 State Innovation Pilot Grant Program

Grant Period:  
March 2003 – September 2005

**I. Contact Information**

State and Agency: Delaware Department of Natural Resources and Environmental Control  
Title of Project: Auto Body Self-Certification Program in the State of Delaware  
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**II. Background**

The Delaware Department of Natural Resources and Environmental Control received the EPA 2002 State Innovation Pilot Grant to conduct the Auto Body Self-Certification Program in the State of Delaware. The award amount from EPA was \$116,500 with DNREC providing a match of \$10,376.

The auto body industry in Delaware is subject to federal and state environmental regulations pertaining to air, water pollution, and solid and hazardous waste generation. The Delaware Department of Natural Resources and Environmental Control (DNREC) recognized this sector as a sector that was traditionally not aware of their environmental obligations. The Air Quality Management (AQM) section recognized that there was a need to work with the auto body industry because so many of the shops may have been operating illegally and/or without a permit. The AQM section developed a source category permit for the auto body sector to make the permitting process easier for auto body shops. A self-certification program with a strong outreach and education component helped to enhance the regulatory programs within DNREC and helped to move the auto body industry closer to our goal of one hundred percent compliance.

The self-certification program included a multi-media approach addressing all of the environmental regulations pertaining to the auto body sector, and encouraged a beyond compliance type approach including pollution prevention, energy efficiency and best management practices. The auto body industry consists of mainly small and medium size shops that operate with minimal resources. The self-certification tools that were made available to the auto body industry addressed the full range of compliance requirements that these shops are responsible for. It also allowed the shops to understand applicable requirements more easily which helped to bring them into compliance. This in turn could reduce air and water pollution and in turn reduce the potential for enforcement actions and fines.

The project followed concepts of the Environmental Results Program (ERP). The project was comprised of three main parts.

- 1) Workshops were held for the auto body industry to explain the Auto Body Self-Certification Program and the broad range of applicable environmental regulations. We held 4 workshops across the State with a total of 97 people attending.
- 2) A workbook was created that included all of the information that an auto body shop needs to know about environmental requirements. It was written in an easy to understand, non-technical language. The workbook included air, water, and waste requirements as well as information on pollution prevention, energy efficiency and best management practices.
- 3) A self-certification packet was included in the workbook. To complete the self-certification form an auto body shop read the workbook and did a self-audit of their environmental performance by answering a series of yes and no questions. If they were out of compliance in any area they were required to submit a return to compliance plan stating what they will do to get into compliance and the date they expected to be back in compliance.

The Auto Body Self-Certification Program was a voluntary program. Auto Body shops were not required to participate in the program; however, they were required to comply with environmental requirements that were outlined in the Program.

As part of this program, the Department developed incentives to encourage auto body shops to participate in this program. Incentives included:

- An improved air permit application was created that was specific to auto body shops and simplified.
- Required engineering calculations were conducted by DNREC permitting staff saving the auto body shops time and the headache of figuring out emissions.
- The advertising fee associated with permit applications was waived saving the auto body shops \$165.00.
- An amnesty period was granted by the Secretary of the Department through the Penalty Mitigation Policy allowing auto body shops to come into compliance without being penalized, provided they met policy provisions.
- Free technical assistance was provided by the Small Business Assistance Program.
- Pollution Prevention audits were conducted when requested.
- Web based reporting was established so that auto body shops could submit their self-certification forms electronically.

### III. Program Information

This voluntary program was conducted on a state wide basis with a 68% participation rate.

Item	Number of Auto Body Shops
Facility universe – state wide – (Number of Autobody shops in Delaware)	152
Number of Auto Body Shops that participated in program (11 submitted forms electronically)	103
Number of Attendees at workshops (4 were held)	97
Number of Auto Body Shops that applied for an air permit	90

DNREC conducted baseline and follow up samples and conducted statistical analyses to provide:

- A snapshot of auto body shops' performance at the time of baseline inspections, before compliance assistance or self-certification began; and
- A comparison of auto body shops before and after compliance assistance and self-certification efforts, to assess whether their environmental performance has improved.

DNREC selected a simple random sample of auto body shops for inspection in the baseline and post-certification inspections.

Prior to the inspections, training was provided to the inspectors to ensure that the interpretation of the questions was consistent among inspectors. Inspectors went to the auto body shop and observed first hand the practices occurring at the shop. The inspector checklist was completed based on the inspector's observation and collecting information from a contact person at the auto body shop.

The baseline inspections were conducted by 6 inspectors over a two week period prior to the start of the Self-Certification Program.

The follow up inspections were conducted by 2 inspectors over a one month period after the deadline for participation in the Self-Certification Program.

DNREC inspected 47 body shops for a baseline analysis and 47 body shops for post-certification analysis. This allowed DNREC to draw conclusions about the overall universe of auto body shops in the state with a 90 percent confidence level and a margin of error of at most +/- 10 percent. This means, for example, that if DNREC found that 50 percent of auto body shops inspected in the baseline sample were in compliance with a particular requirement, DNREC could be 90 percent confident that between 40 and 60 percent of *all* auto body shops in the state

are in compliance with this requirement. The margin of error would be smaller if the percent in compliance is found to be considerably more (or less) than 50%.

With the sample size of 47 inspections in each of the baseline and post-certification samples, an increase of 12% or more in the sample compliance rate would be statistically significant at the 10% significance level and allow DNREC to conclude the compliance rate in the population has increased following self-certification. The 10% significance level means that there is a maximum 10% chance that such a conclusion would be erroneous.

Environmental Business Practice Indicators (EBPIs)

An EBPI is an “industry-specific measure designed to give a snapshot of a facility’s environmental performance”. These are used for conducting statistical methodology to track results of this project.

The questions at the beginning of each table below are an EBPI:

***Hazardous Waste***

Note: 45 of the auto body shops inspected for baseline data were Conditional Exempt Small Quantity Generators (CESQGs). 2 of the auto body shops inspected were Small Quantity Generators (SQGs).

46 of the auto body shops inspected for post certification inspections were Conditionally Exempt Small Quantity Generators (CESQGs). 1 of the auto body shops inspected was a Small Quantity Generator (SQG).

<b>Has the shop conducted a complete, accurate hazardous waste determination for each waste it generates? (Requirement)</b>			
<b>Inspection</b>	<b>Yes</b>	<b>No</b>	<b>% in compliance with requirement</b>
<b>Baseline</b>	<b>17</b>	<b>30</b>	<b>36 %</b>
<b>Post Certification</b>	<b>43</b>	<b>4</b>	<b>91%</b>

<b>Does the shop track hazardous waste accumulation totals? (Best Management Practice)</b>			
<b>Inspection</b>	<b>Yes</b>	<b>No</b>	<b>% practicing Best Management Practice</b>
<b>Baseline</b>	<b>25</b>	<b>22</b>	<b>53%</b>
<b>Post Certification</b>	<b>40</b>	<b>7</b>	<b>85%</b>

**Does the shop send all hazardous wastes to a permitted hazardous waste treatment, storage, or disposal facility or a state authorized facility? (Requirement)**

Inspection	Yes	No	% in compliance with requirement
Baseline	31	16	66%
Post Certification	43	4	91%

**Are all hazardous waste containers properly labeled? (Requirement)**

Inspection	Yes	No	% in compliance with requirement
Baseline	21	26	45%
Post Certification	43	4	91%

**Does the shop have a program that trains employees who handle hazardous waste in proper waste management procedures? (Requirement SQG, Best Management Practice CESQG)**

Note: This is a regulatory requirement for SQGs only.

2 shops in baseline were SQG. 1 was in compliance 1 was not.

1 shop in Post Certification Inspection was a SQG. That 1 shop was in compliance.

Numbers for SQGs are too small to have any significant analysis value.

Inspection	Yes	No	% practicing Best Management Practice
Baseline	16	31	34%
Post Certification	42	5	89%

*Universal Waste*

**Are shop employees aware that batteries, mercury thermostats, and mercury containing fluorescent light bulbs need to be handled according to Delaware requirements for universal wastes?**

Note: This question was only asked of those shops that handle Universal Waste. 45 shops handled universal waste in the baseline. 46 shops handled universal waste in the Post Certification. Margin of error for percent in compliance will be slightly larger.

Inspection	Yes	No	% in compliance with requirement
Baseline	20	25	44%
Post Certification	42	4	91%

*Air Pollution*

**Does any airborne sanding or painting dust (i.e., fugitive dust) leave the business premises and create a condition of air pollution? (Requirement)**

Inspection	Yes	No	% in compliance with requirement
Baseline	5	42	89%
Post Certification	1	46	98%

**Is all painting carried out in a spray booth to contain paint emissions and over-spray? (Best Management Practice)**

Inspection	Yes	No	% practicing Best Management Practice
Baseline	38	9	81%
Post Certification	41	6	87%

**Do the painters and technicians use only painting techniques that comply with Delaware Regulations? (Requirement)**

Inspection	Yes	No	% in compliance with requirement
Baseline	42	5	89%
Post Certification	46	1	98%

**Does the shop clean the spray guns using only methods that comply with Delaware Regulations? (Requirement)**

<b>Inspection</b>	<b>Yes</b>	<b>No</b>	<b>% in compliance with requirement</b>
<b>Baseline</b>	<b>41</b>	<b>5</b>	<b>87%</b>
<b>Post Certification</b>	<b>47</b>	<b>0</b>	<b>100%</b>

**Does the shop store absorbent paint applicators (e.g., shop rags/towels) in closed containers? (Requirement)**

<b>Inspection</b>	<b>Yes</b>	<b>No</b>	<b>% in compliance with requirement</b>
<b>Baseline</b>	<b>25</b>	<b>22</b>	<b>53%</b>
<b>Post Certification</b>	<b>45</b>	<b>2</b>	<b>96%</b>

**Does the shop employ a training program in the proper use and handling of coatings, solvents and waste products to minimize air emissions? (Requirement)**

<b>Inspection</b>	<b>Yes</b>	<b>No</b>	<b>% in compliance with requirement</b>
<b>Baseline</b>	<b>22</b>	<b>25</b>	<b>47%</b>
<b>Post Certification</b>	<b>43</b>	<b>4</b>	<b>91%</b>

*Water Pollution*

**Does the shop have secondary containment for all chemicals, including paints, thinners, strippers, cleaners and automotive fluids, so as to prevent potential spills from entering open floor drains or other access ways to water sources? (Best Management Practice)**

<b>Inspection</b>	<b>Yes</b>	<b>No</b>	<b>% practicing Best Management Practice</b>
<b>Baseline</b>	<b>23</b>	<b>24</b>	<b>49%</b>
<b>Post Certification</b>	<b>37</b>	<b>10</b>	<b>79%</b>

**Does the shop use dry cleaning methods, such as sweeping and vacuuming, when cleaning the shop? (Best Management Practice)**

Inspection	Yes	No	% practicing Best Management Practice
Baseline	46	1	98%
Post Certification	47	0	100%

**Does the shop post signs prohibiting the discharge of industrial chemicals and/or wastewater to bathroom/ kitchen sinks, toilets, showers, shop wash basins, emergency showers, eyewash stations, or other non-industrial drainage outlets? (Requirement)**

Inspection	Yes	No	% in compliance with requirement
Baseline	2	45	4%
Post Certification	38	9	81%

**Does the shop keep paints, cleaners, and any chemicals or materials that can cause runoff (indoors or otherwise) protected from rainwater? (Best Management Practice)**

Inspection	Yes	No	% practicing Best Management Practice
Baseline	47	0	100%
Post Certification	47	0	100%

*Pollution Prevention*

**Is the shop undertaking any reclamation activities?**

Inspection	Yes	No	% practicing pollution prevention
Baseline	22	25	47%
Post Certification	33	14	70%

<b>Does the shop use detergents, high-pressure water, or other non-VOC cleaning options to clean coating lines and containers when practical?</b>			
<b>Inspection</b>	<b>Yes</b>	<b>No</b>	<b>% practicing pollution prevention</b>
<b>Baseline</b>	<b>5</b>	<b>42</b>	<b>11%</b>
<b>Post Certification</b>	<b>16</b>	<b>30</b>	<b>34%</b>

<b>Does the facility avoid any use of methylene chloride-based paint strippers?</b>			
<b>Inspection</b>	<b>Yes</b>	<b>No</b>	<b>% practicing pollution prevention</b>
<b>Baseline</b>	<b>20</b>	<b>26</b>	<b>43%</b>
<b>Post Certification</b>	<b>16</b>	<b>30</b>	<b>35%</b>

**Summary of Data**

Based on the data collected and considering statistically valid data, DNREC is able to conclude that a significant improvement in environmental performance and compliance was observed in many of the Environmental Business Practice Indicators. This indicated that overall compliance has improved as a result of the Delaware Auto Body Self-Certification Program.

Return to Compliance Plans

Auto Body shops that submitted self-certification forms were asked to file a Return-to-Compliance Plan if they were out of compliance with a specific requirement. During the workshops, DNREC told auto body shops that if they were able to correct the problem before they submitted their self-certification form they should correct the problem and check the box that they are in compliance. If a body shop was unable to correct the problem before they submitted their self-certification form, then they should complete a Return-to-Compliance Plan indicating which requirement they were out of compliance with, what corrective action they will take, and the date the shop will be in compliance.

19 Auto Body shops submitted a total of 48 Return-to-Compliance Plans.

10 shops submitted 1 Return-to-Compliance Plan indicating they were out of compliance with one requirement.

3 shops submitted 2 Return-to-Compliance Plans indicating they were out of compliance with two requirements.

2 shops submitted 3 Return-to-Compliance Plans indicating they were out of compliance with three requirements.

1 shop submitted 4 Return-to-Compliance Plans indicating it was out of compliance with four requirements.

2 shops submitted 7 Return-to-Compliance Plans indicating they were out of compliance with seven requirements.

1 shop submitted 8 Return-to-Compliance Plans indicating it was out of compliance with eight requirements.

This indicated that 18 % of the auto body shops that submitted self-certification forms also submitted at least one Return-to-Compliance Plan.

### **Lessons Learned**

DNREC was pleased with the participation rate in the voluntary Self-Certification Program. The baseline and follow-up inspections showed a significant improvement in compliance rate. DNREC plans to continue promoting pollution prevention practices and has begun by offering a workshop to the auto body sector on the use of bio-products. Future workshops are planned for the vocational schools to promote pollution prevention practices among the auto body students.

The feedback from the auto body shops that participated in the program was generally positive. The sector appreciated a workbook that was easy to understand and highlighted all of the environmental requirements. Many of the shops stated that they just never knew what the requirements were.

Several of the shops that were out of compliance commented that they were surprised at how easy it was for them to come into compliance. There was a fear that being in compliance would cost too much and most of the shops found that they were able to come into compliance without costing them significantly. Some were able to recoup their costs through pollution prevention practices or energy efficiency tips that they learned at the workshops.

Both the inspectors and the auto body shops felt that the inspector checklist and self-certification form were too long. Both the inspector checklist and the self-certification form were set up by media. Some of the questions were asked more than once if they were applicable in more than one media. For example, "Are all containers storing hazardous materials or waste kept closed?" was asked in the air section and the waste section. DNREC will work to simplify the forms in the future.

DNREC introduced the program to the auto body sector in October 2004 by holding workshops, mailing workbooks and letters announcing the program. DNREC gave the auto body sector a Feb. 15, 2005 deadline to submit the forms. DNREC was contacted by several body shops requesting an extension. The deadline was then extended to March 31, 2005. DNREC believes that many of the shops waited to complete the forms and then found that it took more time they had allotted. DNREC plans to discuss in more detail the amount of time it takes to complete the forms with the sectors at future workshops.

## Testimonials

One dealership called and said that due to the waste management and pollution prevention information covered in the workshop, his dealership had a better of understanding of their hazardous waste management requirements as well as cutting their hazardous waste generation amounts in half, which will be a substantial cost savings.

A body shop owner called to say that he thinks DNREC is doing a great thing with the auto body program. He said DNREC was taking a responsible, reasonable approach by giving the shops a significant period of time to learn the requirements and submit the information.

A body shop owner stopped in to DNREC to thank us for developing the program. He said he has really cleaned up his shop. His wife is his secretary and she is even telling him how much better the shop smells.

## IV. Financial Status Report

A completed final FSR form 269A, the OMB 2030-0200 MBE/WBE Utilization form, and EPA Form 5700-53 Lobbying and Litigation Certification Form have been submitted to Kathleen M. Blinbury, Grants Management Officer on December 6, 2005.

## V. Conclusions

The Delaware Auto Body Self-Certification Program has been conducted in accordance with the requirements of the award and statement of work. Quarterly Progress Reports were submitted to the grants manager David Byro, EPA Region III. The Assistance Agreement Closeout Checklist has been completed and all required forms have been submitted to the EPA, Region III.

Delaware will continue to implement the Auto Body Self-Certification Program. Periodic updates will be sent to the auto body shops so that they may update their workbooks. Additional training will be provided to vocational schools in Delaware. Additional Pollution Prevention training will also be provided. DNREC's Air Quality Management Section, Area Source Branch is exploring the options for additional self-certification programs and wishes to continue with the Auto Body Self-Certification Program.