

US EPA ARCHIVE DOCUMENT

## Appendix D

### Facility Characterization and Self-Certification: Summary of Results

(This page intentionally left blank.)

## Facility Characterization

A number of questions asked during the visits were solely to capture information about the shops. Some of the information was intended to ensure the shops were eligible to participate in the ERP, being affected by the 6H requirements in at least one aspect. Others captured whether or not specific regulatory questions should be asked. A few of these descriptive and informational questions have been analyzed to see how shops in the samples compared.

Facility/operation characteristics	Inspection samples		Self-certification group
	Baseline	Post-certification	
<b>Shop Information</b>			
Estimated population size	5069	4797	12000
Number of facilities in sample	156	145	2585
<b>Employees at facility</b>			
Average employees/painters	5.9/1.7	7.5/1.8	5.0/2.0
All painters trained?	48.7%	81.4%	94.9%
<b>Number of painters trained? - if NOT ALL trained</b>			
0 trained	54	18	*
1 trained	28	11	*
2+ trained	37	8	*
<b>Type of services provided:</b>			
Autobody Repair	96.1%	96.5%	97.1%
Mechanical Repair	37.8%	30.8%	20.3%
Mobile Paint Service	0	0.7%	0.4%
Salvage Yard	1.3%	0.7%	0.7%
Car Dealership	6.4%	13.0%	10.1%
Car Wash	8.9%	1.4%	3.6%
Other	10.2%	13.0%	4.1%
<b>Air emissions</b>			
Aware of NESHAP	65.4%	90.3%	*
Use of 3 oz cup spray gun	38.1%	52.8%	*
<b>Paint Booths</b>			
Shops with spray booths	93.5%	98.6%	98.9%
Of those, shops with >1 spray booth	15.8%	27.3%	*
Shops with prep areas	42.9%	30.3%	97.9%
Of those, shops with >1 prep area	24.2%	40.1%	*
<b>Use distribution (averaged over all responses)</b>			
Booth 1	92.3%	98.6%	*
Booth 2	18.6%	23.4%	*
Booth 3	1.9%	2.1%	*
Booth 4	39.7%	0.7%	*
Prep 1	7.1%	26.2%	*
Prep 2	2.5%	11.7%	*
Prep 3	1.3%	2.1%	*
Prep 4	--	--	*

Facility/operation characteristics	Inspection samples		Self-certification group
	Baseline	Post-certification	
<b>Hazardous waste generator size</b>			
VSQG	95.5%	*	91.9%
SQG/LQG	4.5%	*	8.1%
<b>Wastewater Discharge†</b>			
POTW	46.1%	*	61.8%
Groundwater discharge	20.5%	*	35.8%
On septic system	6.4%	*	14.9%
Unknown outlet	2.0%	*	5.0%
* No data available.			
† Results do not add up to 100% as each shop may have multiple outlets for wastewater.			

### Self-certification Statistical Analysis

Question:	Number of Responses	Proportion	Average	Standard Deviation
<b>Was the survey submitted on-line?</b>	2585			
On-line	479	18.5%		
Mail	2106	81.5%		
<b>1. Which of the following categories best describes your role at this shop?</b>	2558			
Owner	2021	79.0%		
Manager	1020	39.9%		
Technician who applies spray coatings	671	26.2%		
Another role	128	5.0%		
<b>2. What type of services does your shop provide?</b>	2566			
Auto mechanical repair	521	20.3%		
Autobody shop	2492	97.1%		
Mobile paint service	10	0.4%		
Salvage yard	17	0.7%		
Car dealership	258	10.1%		
Car wash	93	3.6%		
Other	105	4.1%		
<b>3. How many employees and paint technicians (anyone who may paint) do you have in your shop?</b>				
Number of employees	2507		5.0	14.3
Number of paint technicians	2477		2.0	1.4
<b>4a. Do you use any water based paints?</b>	2516			
Only	194	7.7%		
Some	396	15.7%		
None	1932	76.8%		
<b>4b. Do you use any water based primers?</b>	2514			
Only	40	1.6%		
Some	503	20.0%		
None	1975	78.6%		
<b>4c. Do you use any water based solvents?</b>	2529			
Only	55	2.2%		
Some	1046	41.4%		
None	1436	56.8%		

Question:	Number of Responses	Proportion	Average	Standard Deviation
<b>5. Do any of the primers, base coats, clear coats, or other coatings used at your shop contain any of these ingredients or compounds including at least one of these?</b>	2497			
Cadmium	202	8.1%		
Chromium	302	12.1%		
Lead	215	8.6%		
Manganese	126	5.0%		
Nickel	222	8.9%		
None	767	30.7%		
Don't know	1414	56.6%		
<b>6. Were you aware of your state Small Business Environmental Assistance Program and its free, confidential, non-regulatory compliance assistance services?</b>	2552			
Yes	1462	57.3%		
No	645			
Don't know	313			
I would like more information	401	15.7%		
<b>7a. What is your preferred format to receive regulatory information?</b>	2552			
Mailing/written materials	2224	87.1%		
Videos-training or "fact sheets"	328	12.9%		
E-mail messages/documents	653	25.6%		
Web training	280	11.0%		
Web site	215	8.4%		
Facebook/twitter/YouTube	21	0.8%		
On site visit	71	2.8%		
Training sessions/workshops offered by suppliers	825	32.3%		
Training sessions/workshops offered by SBEAP	247	9.7%		
Other	9	0.4%		
<b>7b. When do you prefer workshops to be held?</b>	2427			
During the day	882	36.3%		
After work hours	1605	66.1%		
Other	9	0.4%		

Question:	Number of Responses	Proportion	Average	Standard Deviation
<b>8a. Are ALL spray guns at your shop HVLP, HVLP-equivalent, electrostatic, airless, or air-assisted airless?</b>	2547			
Yes	2533	99.5%		
No	14			
<b>8b. If you answered YES, identify which gun(s) are used:</b>	2497			
HVLP	2488	99.6%		
HVLP equivalent	695	27.8%		
Electrostatic	10	0.4%		
Airless	25	1.0%		
Air-assisted airless	14	0.6%		
<b>9a. Is all paint spray gun cleaning done with a fully enclosed spray gun washer or in a way that does not create a mist of solvent?</b>	2543			
Yes	2481	97.6%		
No	62			
<b>9b. If you answered YES, identify what methods are used:</b>	2506			
Fully enclosed spray gun washer	961	38.3%		
Fully enclosed spray gun washer and occasionally disassemble and clean by hand	982	39.2%		
Flush with solvent but don't spray	1106	44.1%		
Disassemble gun and clean by hand or mechanical methods	1091	43.5%		
<b>10. Does ALL spray coating (including priming) occur in a spray booth or prep station - never out on the shop floor or outdoors?</b>	2547			
Yes	2458	96.5%		
No	89			
<b>11a. When applying a coating to a whole vehicle, or to a component that is still attached to the vehicle, does it ALWAYS occur in a spray booth or prep station that has 4 walls/curtains and a roof?</b>	2545			
Yes	2518	98.9%		
No	27			



Question:	Number of Responses	Proportion	Average	Standard Deviation
11b. How many spray booths or prep stations with 4 walls/curtains and a roof do you have?	2368		1	0.9
12a. When applying a coating to a component that is removed from the vehicle, does it ALWAYS occur in a spray booth/prep station that has AT LEAST 3 walls/curtains and a roof?	2532			
Yes	2480	97.9		
No	52			
12b. How many spray booths/prep stations with only 3 walls/curtain and a roof do you have?	2177		1	0.8
13. Are ALL spray booths and prep stations ventilated with an exhaust fan?	2549			
Yes	2544	99.8%		
No	5			
14. Is each spray booth and prep station that has 4 walls: ventilated at negative pressure; OR ventilated at positive pressure, with seals on all doors and openings and an automatic pressure balancing system, and operated at no more than 0.05 inches water gauge positive pressure?	2533			
Yes	2462	97.2%		
No	71			
15. Is each spray booth and prep station that has 3 walls ventilated so that air is drawn into the booth?	2528			
Yes	803	31.8%		
No	11			
Not applicable	1721	68.1%		
16. Do ALL spray booth and prep station exhaust systems have an overspray filter system?	2541			
Yes	2516	99.0%		
No	25			
17. Are the spray booth and prep station exhaust/filter systems ALWAYS used when any spray painting (including priming) is done?	2542			
Yes	2503	98.5%		
No	39			

Question:	Number of Responses	Proportion	Average	Standard Deviation
<b>18. Is the filter capture efficiency rating of ALL dry filter systems at least 98 percent?</b>	2540			
Yes	2466	97.1%		
No	48			
Not applicable-we have a waterwash booth	26	1.0%		
<b>19a. Do you have a procedure to determine when exhaust/filter systems need to be cleaned and maintained?</b>	2544			
Yes	2501	98.3%		
No	43			
<b>19b. If you answered YES, how do you decide when to change a filter?</b>	2509			
Set schedule	1013	40.4%		
Pressure gauge reading	733	29.2%		
Visual check of filter	1726	68.8%		
Other	100	4.0%		
<b>20a. Have ALL your paint technicians attended training specifically designed to cover the requirements of the new EPA autobody rule (known as 6H or NESHAP)?</b>	2547			
Yes	2418	94.9%		
No	129			
<b>20b. If you answered YES, did the training include both hands-on and classroom sessions?</b>	2423			
Yes	2347	96.9%		
No	76			
<b>21. Did the training cover ALL of the following specific topics?</b>	2460			
Yes	2418	98.3%		
No	42			
<b>22. Is the training for ALL technicians up to date?</b>	2529			
Yes	2433	96.2%		
No	96			
<b>23. Is your shop exempt from the methylene chloride (MeCl) paint stripping requirements in the EPA autobody rule?</b>	2539			

Question:	Number of Responses	Proportion	Average	Standard Deviation
Exempt	2262	89.1%		
Not exempt	277			
<b>24. Do you have records documenting the amount of paint stripping products containing methylene chloride (MeCl) your shop uses each year?</b>	270			
Yes	215	79.6%		
No	55			
<b>25. How much product containing MeCl does your shop use each year? (gallons)</b>	268		3	3.7
<b>26. Does your shop have a plan to reduce or eliminate the use of MeCl?</b>	268			
Yes	216	80.6%		
No	52			
<b>27. If your shop uses 2000 pounds (~150 gallons) or more in a year, is your minimization plan written and posted where MeCl is used?</b>	272			
Yes	0	0.0%		
No	2			
Not applicable-we use less than 2000 pounds per year	270	99.3%		
<b>28a. Have you submitted an initial notification for the EPA autobody rule as required?</b>	2501			
Yes	2228	89.1%		
No	273			
<b>28b. If you answered YES, do you have a copy in your files and available for review?</b>	2183			
Yes	2102	96.3%		
No	81			
<b>29. Do you have in your files and available for review the required documentation of the efficiency of the filters used to capture paint overspray?</b>	2523			
Yes	2327	92.2%		
No	168			
Not applicable-we have a waterwash booth	28	1.1%		

Question:	Number of Responses	Proportion	Average	Standard Deviation
30a. Do you have records on the training each technician received in your files and available for review?	2527			
Yes	2385	94.4%		
No	142			
30b. If you answered YES to 30a, has the shop owner and/or operator certified that the training each technician took meets the requirements of the EPA autobody rule?	2384			
Yes	2368	99.3%		
No	16			
30c. If you answered YES to 30a, has the training for each technician occurred within the past 5 years?	2394			
Yes	2377	99.3%		
No	17			
31a. Do you have verification that all your spray guns are HVLP, HVLP-equivalent, electrostatic, airless, or air-assisted airless?	2541			
Yes	2504	98.5%		
No	37			
31b. If YES, please describe the documentation available on the spray guns:	2500			
HVLP is stamped on every gun	1612	64.5%		
Documentation for every gun in my shop is in my files and available for review	445	17.8%		
HVLP is stamped on some guns and documentation is in my files for all the others	795	31.8%		
Other	4	0.2%		
WM1. Have you looked at all of the wastes your shop generates and determined which ones are considered hazardous?	2501			
Yes	2468	98.7%		
No	33			
WM 2a. Do you record the amount of hazardous waste that your shop generates?	2468			
Yes	1995	80.8%		

Question:	Number of Responses	Proportion	Average	Standard Deviation
No	473			
WM 2b and 2c. What is the highest amount of hazardous waste that your business generates in a month (in pounds)?	2265		58	103.6
WM3. Does your shop generate NO MORE than 220 pounds (26 gallons) of hazardous waste in its busiest month?	2516			
Yes	2311	91.9%		
No	205			
WM4. Are all your hazardous wastes stored correctly as outlined below?	2439			
Yes	2410	98.8%		
No	29			
WM5. Are all your hazardous waste containers properly labeled as outlined below?	2422			
Yes	2263	93.4%		
No	159			
WM6. Are you following the proper disposal methods for each of the wastes you generate?	2418			
Yes	2395	99.0%		
No	23			
WM7. Do you have an employee training program that teaches proper hazardous waste management procedures?	2426			
Yes	1944	80.1%		
No	482			
WW 1. Do you operate a dry' shop?	2512			
Yes	666	26.5%		
No	1846			
WW 2. Are you following only allowed discharge practices for your shop waste liquids? [Shop waste liquids include solvents, oils, antifreeze, car wash water, floor washing, etc.]	1777			
Yes	1726	97.1%		
No	51			

Question:	Number of Responses	Proportion	Average	Standard Deviation
<b>WW 2a. Which of your waste liquids are discharged to a storm drain, onto the ground or into a ditch?</b>	1816			
Solvents	7	0.4%		
Oil/grease	4	0.2%		
Car wash	648	35.7%		
Antifreeze	10	0.6%		
None	1166	64.2%		
Other	16	0.9%		
<b>WW 2b. Which of your waste liquids are discharged to a septic system?</b>	1817			
Solvents	3	0.2%		
Oil/grease	2	0.1%		
Car wash	270	14.9%		
Antifreeze	11	0.6%		
None	1547	85.1%		
Other	8	0.4%		
<b>WW 2c. Which of your waste liquids are discharged to an unknown outlet?</b>	1813			
Solvents	0	0.0%		
Oil/grease	0	0.0%		
Car wash	85	4.7%		
Antifreeze	0	0.0%		
None	1722	95.0%		
Other	3	0.2%		
<b>WW 2d. Which of your waste liquids are discharged to the sewer (local wastewater treatment plant) or a holding tank later whose contents are to be transferred to a treatment plant?</b>	1826			
Solvents	29	1.6%		
Oil/grease	32	1.8%		
Car wash	1110	60.8%		
Antifreeze	61	3.3%		
None	697	38.2%		
Other	27	1.5%		

Question:	Number of Responses	Proportion	Average	Standard Deviation
<b>WW 3. If you checked anything other than 'NONE' in WW 2a, 2b, or 2c above, has your shop contacted the state environmental agency to determine if a permit or other authorization is required for any of those activities?</b>	756			
Yes	251	33.2%		
No	505			
<b>PP 1a. Please check any of the following actions you have taken to reduce air emissions...</b>	2585			
Keep all solvent containers closed to limit evaporation	2408	93.2%		
Avoid use of coatings that contain toxic metals by asking suppliers for alternative formulations	1776	68.7%		
Use paintless dent repair techniques	1773	68.6%		
Avoid use of methylene-chloride based paint strippers	2265	87.6%		
Automatic enclosed gun washer	1506	58.3%		
Use water-based or low-solvent coatings	1043	40.3%		
Use low-VOC solvents or thinners	1806	69.9%		
Two-stage solvent use	1128	43.6%		
Recycle solvents with on-site (or off-site) distiller	979	37.9%		
Have an inventory system (first-in, first-out) in place to prevent products from going out of date	1514	58.6%		
Use computerized paint mixing system to minimize mistakes/over-mixing	1735	67.1%		
Use non-solvent based putty/fillers	990	38.3%		
Other	13	0.5%		
<b>PP 1b. Dust or Particulate Matter emissions:</b>	2585			
Use a disposable paint cup system to minimize unused paint and emissions	1566	60.6%		

Question:	Number of Responses	Proportion	Average	Standard Deviation
Use a ventilated sander or self-contained media plaster to minimize emissions from preparing parts	626	24.2%		
Reusable aerosol or pump spray containers	1179	45.6%		
Use roll-on primer	445	17.2%		
Other	20	0.8%		
<b>EE 1a. Please check any of the following actions you have taken to minimize energy use in your shop...</b>	<b>2585</b>			
Paint booth energized only when necessary	2260	87.4%		
Booth lights kept clean	2290	88.6%		
Filters changed regularly to ensure good airflow	2368	91.6%		
Paint booth fan motors have variable speed drives	757	29.3%		
Booth uses heated air recirculation	1049	40.6%		
Energy efficient equipment	1349	52.2%		
Booth lighting on timers/motion sensors to reduce energy use	464	17.9%		
Other	29	1.1%		
<b>EE1 b. In general shop areas:</b>	<b>2585</b>			
Installed specialized controls	514	19.9%		
Install programmable thermostat for heating/cooling	965	37.3%		
Installed efficient fluorescent lights	1496	57.9%		
Encouraged employees to turn off lights	2102	81.3%		
Cleaned light fixture reflectors to increase available light	1928	74.6%		
Reduced light intensity where acceptable	1176	45.5%		
Taken advantage of day-lighting	1642	63.5%		
Install dusk to dawn lighting fixtures/equipment	801	31.0%		



Question:	Number of Responses	Proportion	Average	Standard Deviation
Completed an energy audit/aware of monthly electricity/fuel use	408	15.8%		
Insulated building, windows and hot/cold ducts or pipes	1348	52.1%		
Regularly check your air compressor system for leaks and repair all leaks found	2236	86.5%		
Regularly check your air compressor to ensure that the pressure setting isn't higher than it needs to be	2013	77.9%		
Use electric tools like shop-vacs or blow dryers instead of the compressed air system	1728	66.8%		
Energy efficient office products/machines; reduce number of machines in use	1484	57.4%		
High efficiency furnace; in floor heating	977	37.8%		
Other	42	1.6%		

### Discussion of Results for Self-Certifications

Questions 1-7 summarize general information about the facilities that voluntarily returned self-certification surveys. The majority (81.5%) returned paper surveys by mail while the rest were completed on-line. 79.0% of respondents were owners of the businesses, while 39.9% identified themselves as managers. Only 26.2% classified themselves as paint technicians. Some of these responses overlap, since respondents were able to select more than one role. Most (97.1%) described their businesses as auto body shops. However, there was some overlap, with many also identifying themselves as auto mechanical repair shops or car dealerships. On average, each shop had 5 employees, 2 of which were paint technicians.

Question 4 asked if shops used any water-based paints, primers or cleaning solvents. The majority reported using none of these. 76.8% reported using no water-based paints, 78.6% reported using no water-based primers, and 56.8% reported using no water-based solvents. Very few facilities reported only using water-based products with 7.7% using only water-based paints, 1.6% using only water-based primer, and 2.2% using only water-based solvents.

There was a lot of uncertainty regarding the presence of regulated metals at the facilities. When asked if the facilities use any of the metals - cadmium, chromium, lead, manganese or nickel - 56.6% responded that they did not know whether any of the metals were present at their shops. However, another 30.7% stated that they use none of these metals.

Respondents were split on whether they were familiar with the Small Business Environmental Assistance program. 57.3% replied that they were aware of the program, whereas the rest said no, don't know, or requested additional information on the program. By far, the most preferred means of receiving regulatory information was by mail, with 87.1% choosing this option. Other popular choices

were training sessions/workshops offered by suppliers (32.3%), and e-mail messages/documents (25.6%). Respondents were able to choose more than one preferred method. The majority of respondents preferred workshops to be held after work hours, with 66.1% choosing this option.

### Spray Guns

Questions 8-9 explore the types of spray guns used by the facilities. 99.5% claimed all the spray guns in their shops were approved spray guns (HVLP, HVLP-equivalent, electrostatic, airless or air-assisted airless). The vast majority of respondents (99.6%) used HVLP guns. A fair number (27.8%) used HVLP-equivalent guns, and very few used the other types of approved guns. Respondents were able to select more than one gun type if they used multiple kinds.

Question 9a and b deals with how spray guns are cleaned. 97.6% of respondents stated they use only approved spray gun cleaning methods. Respondents were pretty split on which cleaning methods were used. The most popular method was "flush with solvent but don't spray" (44.1%), followed closely by "disassemble gun and clean by hand or mechanical methods" (43.5%), "fully enclosed spray gun washer and occasionally disassemble and clean by hand" (39.2), and "fully enclosed spray gun washer" (38.3%). Respondents were able to select more than one cleaning method, and in some cases, even selected all four choices, although this was redundant.

### Spray Booths and Prep Stations

Questions 10-19 address the spray booths and prep stations used by auto body shops. There appears to be pretty good compliance in this area, with all questions in the above 90% compliance range.

96.5% of respondents claimed to always use a spray booth or prep station when spraying coatings. 98.9% stated that, when applying a coating to a whole vehicle or component that is attached to the vehicle, it is always done within a spray booth or prep station with 4 walls or curtains and a roof with an average of 1 such spray booth or prep station per shop. In addition, 97.9% stated that when they are coating a component that is not attached to the vehicle, it is always done in a spray booth or prep station with at least 3 walls or curtains and a roof with an average of 1 such spray booth or prep station per facility.

99.8% of respondents stated that all their spray booths and prep stations are ventilated with an exhaust fan. The survey then asked, "is each spray booth and prep station that has 4 walls: ventilated at negative pressure; or ventilated at positive pressure, with seals on all doors and openings and an automatic pressure balancing system, and operated at no more than 0.05 inches water gauge positive pressure?" for which 97.2% said yes. Only 31.8% stated that each spray booth and prep station that has 3 walls was ventilated so that air is drawn into the booth, but 68.1% said that this was not applicable, since they only had spray booths or prep stations with 4 walls, bringing up the total that are in compliance to 99.9%. 99% stated that all booth or prep station exhaust systems have an overspray filter system and 98.5% said those exhaust/filter systems are always used for all spray painting. 97.1% said the filter capture efficiency rating of their dry filter systems is at least 98%. Only 1.0% said this was not applicable, because they have a waterwash booth. 98.3% have a procedure to determine when exhaust/filter systems need to be cleaned and maintained. Of these procedures, the most common was a visual check of the filter which was practiced by 68.8% of respondents, followed by a set schedule practiced by 40.4% and a pressure gauge reading with a 29.2% response rate.

### Training

Questions 20-22 discuss the training necessary for paint technicians to take regarding the auto body rule. 94.3% of respondents stated that their technicians had attended training designed to cover the new rule. 96.9% of those said this training was comprised of both classroom and hands-on sessions. 98.3% of respondents answered that the training covered all the topic requirements outlined in

question 21 of the survey. Finally, 96.2% of respondents said the training for all of their technicians was up to date. Note that if the respondent answered “no” to the first question (20A), they may have skipped the remaining questions which would not be relevant. Thus, the percentages are only including those that actually answered the question. Those that answered no to 20A and skipped the rest would not be included in the percentage.

### Paint Removal/Stripping

Questions 23-27 address the methylene chloride requirements of the auto body rule. The majority of respondents do not use methylene chloride. 89.1% reported that they were exempt from these requirements, because they do not use chemical paint strippers or they verified that their chemical strippers do not contain methylene chloride. Those that do use the chemical were asked to answer a few follow up questions. Of those who answered the follow up questions, 79.6% have records documenting the amount of methylene chloride they use and averaged 3 gallons of the product per year. 80.6% of those responding to the follow up questions have a plan to reduce or eliminate methylene chloride. Finally, when asked “if your shop uses 2,000 pounds or more in a year, is your minimization plan written and posted where MeCl is used?”, almost all (99.3%) responded that this was not applicable because they use less than 2,000 pounds a year. No one answered “no” to this question, and only 2 said “yes”.

### Documentation, Recordkeeping and Reporting

Questions 28-31 address the paperwork auto body facilities are required to maintain per the auto body rule. 89.1% stated at the time they filled out this survey that they had submitted the initial notification form. Of those, 96.3% retained a copy in their files. In addition, 92.2% have retained documentation on the efficiency of their filters used to capture paint overspray and an additional 1.1% said that this did not apply to them, because they had a waterwash booth.

Auto body shops are also required to maintain documentation on the training their paint technicians have received. 94.4% said they have records on the training of their paint technicians. Of those that have training records, 99.3% said the shop owner or operator had certified that the training meets the requirements of the EPA auto body rule and 99.3% certified that the training occurred within the last five years.

Finally, the auto body shops were asked if they have documentation on the spray guns. 98.5% stated that they have verification that they spray guns are comprised of only approved types (HVLP, HVLP-equivalent, electrostatic, airless or air-assisted airless). Of those that have documentation on their spray guns, 64.5% said “HVLP stamped on every gun”, 31.8% said “HVLP stamped on some guns and documentation is in my files for all the others”, and 17.8% said “documentation for every gun in my shop is in my files and available for review. For this last question, respondents were able to select more than one option.

### Waste Management

Questions WM1-WM7 go beyond the new EPA auto body rule and touch on some of the waste management requirements for hazardous waste auto body shops are subject to. 98.7% of respondents reported that they have looked at the waste they generate and determined which are hazardous. However, only 80.8% reported actually recording the amount of hazardous waste they generate. Of those who recorded their waste, an average of 58 pounds of hazardous waste was generated in a month per facility. 91.9% claim that they generate no more than 220 pounds of hazardous waste in their busiest month.

The survey then addresses how the facility handles their hazardous waste. Whether or not these are requirements or just best practices vary from state to state. However, 98.8% of respondents from all states stated that their hazardous waste is stored correctly as outlined in the survey. 93.4%

said they property label their hazardous waste containers. 99.0% report that they are following proper disposal methods for the hazardous waste they generate, as the survey describes. However, fewer, only 80.1%, reported having a training program that covers hazardous waste management with their employees.

### Wastewater

Questions WW1-WW3 address whether or not the auto body shops discharge any waste liquids and to where they are discharged. A little over a quarter of respondents (26.5%) classified themselves as dry shops. Of those who do discharge waste liquids, 97.1% claim to follow only allowed discharge practices. When asked which of these waste liquids are discharged to a storm drain, onto the ground, or into a ditch, the majority (64.2%) stated none. The most common type of discharge to this outlet was car wash water, at 35.7%. All other types of wastewater were rarely discharged to this outlet, all with a less than 1% response rate for each discharge type. 85.1% of respondents said they do not discharge their waste liquids to a septic system. However, 14.9% did report discharging car wash water here. For all other discharge types, less than 1% sent each type to a septic system. 95.0% do not discharge to an unknown outlet. Only 4.7% sent their car wash water here. Very few reported discharging another waste liquid to an unknown outlet (0.0%-0.2%). 60.8% reported discharging their car wash water to a local wastewater treatment plant or holding tank to be transferred to a wastewater treatment plant. 38.2% said they do not discharge any waste water to a treatment plant. Very few (under 4% for each) discharged any of the other types of waste liquids here. Overall, very few facilities discharged any types of waste liquid other than car wash water to any of the outlets described above. Finally, those facilities that discharged waste liquids anywhere other than to a wastewater treatment plant were asked if they had contacted their state environmental agency to determine if a permit or other authorization is required to do so. Only 33.2% of those responding to the question reported that they had, so there may be some issues with compliance here.

### Best Management Practices in Pollution Prevention and Energy Efficiency

Questions PP1-EE1 address best management practices that the facilities use to reduce pollution or energy use. Percentages for these questions were calculated using the total number of surveys received, even if they did not answer the question, since they could be practicing none of these. When asked which actions they have taken to reduce air toxics emissions, the most common response was "keep all solvent containers closed to limit evaporation" with 93.2% claiming to use this method. Other responses with high percentages were "avoid use of methylene-chloride based paint strippers" at 87.6%, "use low-VOC solvents or thinners" at 69.9%, "avoid use of coatings that contain toxic metals by asking suppliers for alternative formulations" at 68.7%, "use paintless dent repair techniques" at 68.6%, and "use computerized paint mixing system to minimize mistakes/over-mixing" at 67.1%. Even the practice with the lowest percentage (besides "other"), "recycle solvents with on-site (or off-site) distiller", was practiced by over a third of all those surveyed. The survey then asked what actions have been taken to reduce dust/particulate matter. The most common response to this question was "use a disposable paint cup system to minimize unused paint and emissions" with 60.6% selecting this method followed by "reusable aerosol or pump spray containers" at 45.6%.

The survey then asks what shops do to minimize energy use. In the paint booth area, the most popular practice was "filters changed regularly to ensure good airflow" at 91.6% followed by "booth lights kept clean" at 88.6% and "paint booth energized only when necessary" at 87.4%. In the general shop area, common energy reduction practices include "regularly check you air compressor system for leaks and repair all leaks found" (86.5%), "encourage employees to turn off lights" (81.3%), "regularly check your air compressor to ensure that the pressure setting isn't higher than it needs to be" (77.9%), "cleaned light fixture reflectors to increase available light" (74.6%), "use electric tools like shop-vacs or blow dryers instead of the compressed air system" (6.8%), and "taken advantage of day-lighting" (63.5%).

## General Observations on Responses from Self-Certification Data Entry

### General Information:

4. Does your shop use water-based paints, water-based primers, water-based cleaning solvents? - "None" appeared to be the most common response to each of these. There were some "some" responses, but there didn't seem to be many "only" responses to this question.
5. Do any of the primers, base coats, clear coats, or other coating used at your shop contain any of these ingredients or compounds including at least one of these? - It seemed that "None" and "Don't know" were both pretty common responses. The individual metals present were rarely indicated.
6. Are you aware of your state's Small Business Environmental Assistance Program? - I feel like "no" was probably more common than "yes" but not by a whole lot. Most did not request more information.
- 7A. How do you prefer to receive regulatory information? - "Mailing/written materials" was by far the most common response. "Facebook/Twitter/YouTube" and "On site visit" were very rarely checked.

### Spray Guns:

- 8A-B. Are all spray guns at your shop HVLP, HVLP-equivalent, electrostatic, airless, or air-assisted airless? - "Yes" was almost always checked and most guns were identified as either HVLP or HVLP-equivalent.
- 9A-B. Is all paint spray gun cleaning done with a fully enclosed spray gun washer or in a way that does not create a mist of solvent? - Responses to this question were mostly "yes". All approved methods listed in B seemed to be about equally common with many indicating multiple methods.

### Spray Booths and Prep Stations:

- 10-19. Responses to these questions seemed to be mostly "yes". It was very common for there to be 0 prep stations and 1, sometimes 2, booths. When "no" responses did occur, they seemed to be most commonly regarding filter efficiency in 18. Not many used waterwash booths.

### Training:

- 20-22. Training questions were more commonly "yes" than "no", although there was a fair amount of "no's". The most common issue was no hands-on training in 20B.

### Paint Removal/Stripping:

23. Is your shop exempt from the methylene chloride paint stripping requirements? - The majority said they were exempt. Those who were not exempt used very small amounts.

### Documentation, Recordkeeping and Reporting:

- 28A. The majority had submitted the Initial Notification but there was a fair amount that hadn't.
- 29-31. Recordkeeping for filter efficiency, training and spray guns was fairly good, but there was a fair number of "no's" here as well.

### Waste Management:

**WM1-3.** The majority had looked at their waste and recorded the amount of hazardous waste generated. However, I was surprised by the number of people who were not aware. Hazardous waste amounts seemed to be pretty low with very few exceeding 220 pounds a month.

**WM4-7.** These questions were primarily “yes” except WM7 (employee training program) for which I saw a lot of “no’s”. Often, no’s were accompanied by a note that they didn’t have any employees, so that is probably the primary reason for the “no” responses.

**Wastewater:**

**WW1-3.** The majority were not dry shops. Most responded that they were following only allowed discharge practices, although many discharged to outlets other than the sanitary sewer. Most shops only discharged car wash water which was commonly discharged to a storm drain/ditch if not going to the sanitary sewer.

(This page intentionally left blank.)