Region 5 Autobody Environmental Results Program

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WI Small Business Clean Air Assistance Program
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What is ERP?

- **Environmental Results Program**
- Use statistical approach to measure performance in a sector
- Select a sub-set of regulatory and best management practices that apply in the sector, single or multi-media
- Report results on the selected practices with desired confidence level and confidence interval
- Facility self-audit and certification offers insight into their perception of performance – not statistically analyzed
Why a Regional Project?

- How to reach ~13,000 autobody shops in Region 5 to address area source NESHAP?
  - Area source rules rely on Small Business Environmental Assistance Programs (SBEAPs) and compliance assistance rather than Title V permits
    - Region 5 SBEAPs average 2-3 staff, have small budgets and fairly large states
    - Only one Region 5 state had delegation for NESHAPs and not planning much enforcement effort
  - How do we also get Region 5 EPA involved since they have enforcement role?
    - And provide assistance rather than BIG fines on limited number of shops
      - Usual fines can put these size shops out of business
    - But do want to see some enforcement, to encourage higher compliance rates
How Did it Get Started?

- Early 2008 - Meeting with Region 5 SBEAPs and EPA staff
  - Fall 2008 - letter of support from R5 EPA admin to state agencies for partnership
  - Region 5 EPA and states interested, so drafted project plan and submitted SIG app

- Early 2009 - 1 of 2 selected from 25 submittals for last SIG
  - Regular calls between state partners to develop project materials (checklists, training, outreach)
    - WI primary lead (SBEAP and DNR partners)
    - partners = Region 5 EPA, SBEAPs in IL/IN/MI/MN/OH, P2 (MN&IL), NEWMOA
    - collaboration between all partners to get work done
What are Main Project Steps?

- **Phase 1** – Universe and Sample Size (2009)
- **Phase 2** – Develop Materials and Train Field Staff (*Mid- to late-2009*)
- **Phase 3** – Baseline Visits (*Spring-late Summer 2010*)
- **Phase 4** – Self-assessment Tool and Training to Shops (*Fall 2010-Spring 2011*)
- **Phase 5** – EPA Conduct Follow-up Inspections (*Begins Summer 2011*)

**Final** - Analyze Data and Complete Report to EPA; States ERP Consortium Meeting or other forum to share report
Project Design

- Use “ERP” on Autobody Refinishing sector
  - Combine population of shops in six states
  - Focus on urban areas and the area source NESHAP affecting body shops

- Take urban areas in all six states combined as universe and randomly select a sample of shops
  - Universe, about 5000 in urban counties
  - Sample design:
    - use 90% confidence level
    - sample a minimum of 140 total across all 6 states
      - states each take proportional sample (minimum 15, maximum ~40), but analyze as Region
      - using at least 15 allows possible measure of individual state data, with larger margin of error
      - if one state did ERP, would still need 140 sample size
## Sample Size for Each State

**DATA SET:** URBAN SHOPS

<table>
<thead>
<tr>
<th>Confidence Level</th>
<th>90%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sample Size Goal (Each Round)</td>
<td>140</td>
</tr>
<tr>
<td>Ensure Minimum Stratum Samples?</td>
<td>Y</td>
</tr>
<tr>
<td>Minimum Stratum Sample Size</td>
<td>15</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th></th>
<th>Wisconsin</th>
<th>Minnesota</th>
<th>Michigan</th>
<th>Indiana</th>
<th>Illinois</th>
<th>Ohio</th>
<th>Region-Wide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Population</td>
<td>456</td>
<td>675</td>
<td>877</td>
<td>489</td>
<td>1,225</td>
<td>1,347</td>
<td>5,069</td>
</tr>
<tr>
<td>Exact Proportional Sample Size</td>
<td>12.6</td>
<td>18.6</td>
<td>24.2</td>
<td>13.5</td>
<td>33.8</td>
<td>37.2</td>
<td>140</td>
</tr>
<tr>
<td>Rounded Sample Size</td>
<td>13</td>
<td>19</td>
<td>25</td>
<td>14</td>
<td>34</td>
<td>38</td>
<td>143</td>
</tr>
<tr>
<td>Recommended Sample Size</td>
<td>15</td>
<td>19</td>
<td>25</td>
<td>15</td>
<td>34</td>
<td>38</td>
<td>146</td>
</tr>
<tr>
<td>Margin of Error (+/-)</td>
<td>1 sample</td>
<td>2 samples</td>
<td>1 sample</td>
<td>2 samples</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>19.3%</td>
<td>30.6%</td>
<td>17.4%</td>
<td>27.0%</td>
<td>15.4%</td>
<td>23.4%</td>
<td>19.3%</td>
</tr>
</tbody>
</table>

Note: Margin of error figures produced using Sample Planner 2007 (for citations, see that tool). For regionwide figures, actual margin of error will likely be smaller, because of stratification. Margin of error figures for individual state results may b
Project Materials

- Develop primary materials with focus on key indicators
  - baseline checklist for SBEAP field visits
  - outreach materials for field staff and shops
  - self-assessment checklist – a modification of baseline

- Outreach to shops
  - through associations/suppliers and online

- Shared materials
  - for SBEAPs: [http://commerce.wi.gov/bd/BD-CA-AutobodyERP.html](http://commerce.wi.gov/bd/BD-CA-AutobodyERP.html)
  - for shops: [http://commerce.wi.gov/bd/BD-CA-AutobodyShopCompTraining.html](http://commerce.wi.gov/bd/BD-CA-AutobodyShopCompTraining.html)
Baseline - Preliminary Results

- Paint Booths/Prep Stations
  - 145 out of 155 have booths (93%)
  - 66 out of 154 have prep stations (43%)

- Compliance
  - Booths
    - 70% compliant (105/149)
    - 54% compliant filters (78/145)
  - Prep Stations
    - 33% compliant (24/73)
    - 28% compliant filters (19/68)
Baseline - Preliminary Results

- **Paint Guns – HVLP compliant guns**
  - 58% using ALL compliant guns

- **Painter Training**
  - Average # painters per shop = 1.7
  - 76 out of 156 said ALL painters trained
  - Average # painters/employees trained = 1.0
    - 119 out of 156 had counts
      - 54 out of 119 said 0 trained
      - 65 report at least 1 trained
Self-Certification - Universe

- Mailed packets to 12,000 shops in 6 states
  - cover letter specific to state
  - notification forms specific to state, if needed
  - self-cert form (32+ pages)
  - instructions on completing online vs mailing copies
Self-Cert - Responses

- Nearly 500 online
- Between 2500 and 3000 hard copies mailed to WI
- Still a few trickling in both ways

- Even on low end ~3000 out of 12,000 shops is great return for voluntary checklist
Next Steps

- Enter all self-certs into electronic database (*Summer 2011*)
- Analyze for general info on responses – not statistical analysis (*Summer/Fall 2011*)
- EPA will start post-certification visits this summer, but waiting on ICR (*Summer/Fall 2011 – before EPA’s FY’12*)
- Collect checklists from EPA and enter data for final analysis (*Fall/Winter 2011*)
- ERP Consortium Meeting in mid-2012 to report out on Region 5 project and get reports on other completed ERPs
- Grant ends September 2012
NEWMOA - Initial Endorsements

- Worked with Bill Cass and Tara Acker through States ERP Consortium and related training
- Expertise on statistics and handling multi-state project
- Experience with ERP Performance Analyzer through work with Mass DEP and Common Measures
- Planning and coordination of State-EPA ERP meetings
NEWMOA - Actions

- Develop and conduct statistical training for state field staff in Phase 1 - November 2009
- Assist with outreach workgroup – developing materials – prior to Phase 2
- Manage contract with TetraTech, Inc. on Performance Analyzer upgrades
- Assist with hosting Consortium calls until travel more likely to allow for Consortium meeting