

**Environmental Results
Programs:**
*Innovative Approaches to
Helping Small Businesses*

**SBO/SBEAP National Conference
St. Paul, Minneapolis
June 18-21, 2007**

Speaker Panel

- **Gary Jones**
Printing Industries of America/Graphic Arts Technical Foundation
- **Marc Cohen**
Massachusetts DEP
- **Julie Churchill**
Maine DEP
- **Renee Bashel**
Wisconsin Clean Air Small Business Ombudsman

ERP Overview

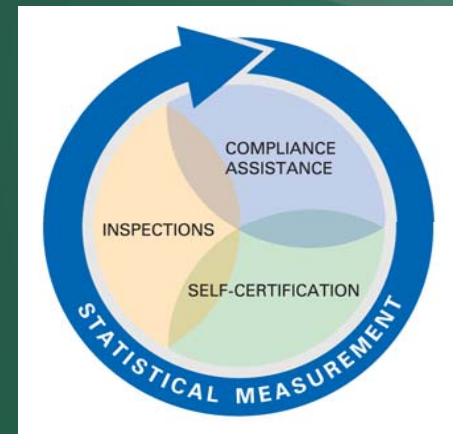
Gary Jones

**Printing Industries of America/
Graphic Arts Technical Foundation**

What Is ERP

Environmental Results Program

- Innovative alternative approach to permitting.
- Relies upon self-audits with self-certification to validate environmental compliance requirements.
- Program that ties together
 - *Compliance assistance*
 - *Self-certification*
 - *Performance measurement*



Characteristics of Current & Future System

Current System

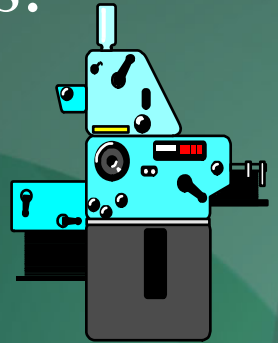
- Command & Control
- Priorities Politically Driven
- Media-by-Media Approach
- Enforcement Focus
- Lacks Business Integration
- Heavy Administrative Burden
- Discourages Innovation
- No Longer Challenges “Good” Companies
- Limited Public Involvement

Future System

- Performance-Based
- Prioritizes Environmental Risk
- Multi-Media Approach
- Assistance Focus
- Integrates Business Goals
- Reduced Administrative Burden
- Encourages Innovation
- Rewards Stewardship
- Appropriate Public Involvement

Why the Printing Industry?

- Printing is ideally suited for ERP.
- Principally composed of small businesses.
 - *Over 80% have 20 employees or less.*
- Generally non-controversial.
- Has many small and some large facilities.
- Has air, water and waste requirements.



ERP Benefits

- Multi-Media regulatory program
 - *Air emissions*
 - *Waste water (including storm water) discharges*
 - *Hazardous waste generation and disposal*
- Improved efficiency of the regulatory process
- Regulatory simplification
 - *Plain language workbook*
 - *Certification focuses compliance requirements*
- Level environmental compliance playing field



ERP Benefits

- Single “Point of Contact” for printers
 - *Increased availability of technical assistance*
- Enforcement
 - *Return to compliance*
 - *Allows for corrections without fear of penalty*
 - *Lower priority for inspections*
- Statistical measurement
 - *Allows for quantification of benefits*
 - *Agency priorities and program expansion*



Types of ERP Programs

I. Redesign of entire regulatory process

- *Requires modification of regulations*
- *Massachusetts*

II. Outreach and education

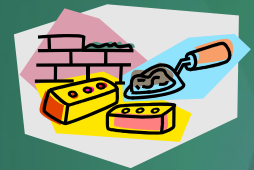
- *Maintains existing regulations*
- *Maine*

III. Blend of I and II

- *Some regulatory modification*
- *Wisconsin*

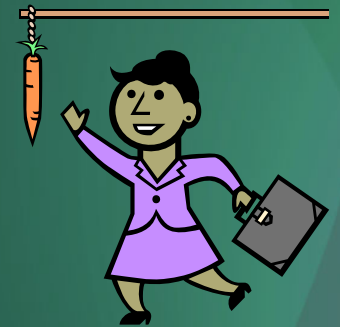
Ideal ERP Design Elements

- Requirements based on environmental impact.
 - *Larger sources have more requirements; smaller less.*
- Single consolidated enforceable certification
 - *No Permits!*
- Air based on actual and not potential emissions.
 - *Thresholds based on material use and calculations.*
- Operational flexibility for air emissions.
 - *Easily change equipment and input materials.*
 - *“Permit” modifications not needed if emissions remain in specified level.*



Ideal ERP Design Elements

- Tangible incentives to implement P2.
 - *Reduce level – less regulatory requirements.*
 - *No required interaction if remaining in specific level.*
- Harmonized & reduced reporting requirements.
 - *Single annual report addressing all requirements.*



ERP Like Projects

- **PRINTSTEP**
 - *Printers Simplified Total Environmental Partnership.*
 - *Successful pilot program testing ERP concepts.*
 - *Evaluation Report.*
www.epa.gov/compliance/assistance/sectors/printstep.html
- **State air permit program**
 - *Maryland's general permit for sheet fed offset litho printers.*
 - *Ohio EPA's new air permit-by-rule.*
 - *Florida's new air exemption and air general permit.*



Contact Information

Gary A. Jones, Director
Environmental Health,
& Safety Affairs

PIA/GATF

200 Deer Run Road

Sewickley, PA 15143

Phone: 412.259.1794

F: 412.741.2311

gjones@piagatf.org

www.GAIN.net



MassDEP ERP for Printers

Marc Cohen

**Massachusetts Department of
Environmental Protection**

Why ERP for MA

- With major sources generally under adequate controls and oversight, major environmental goals such as Ozone Attainment were still not achieved.
- Recognition that numerous small sources cumulatively create significant environmental impacts.
- Build on successful multi-media, pollution prevention based approaches.
- Less prescriptive, performance-based approaches.
- Finding better ways to measure regulated community and agency performance.

Why ERP Printing Sector for MA

- A need to manage small source permitting more effectively and efficiently.
- Multi-media regulation of Printers can provide compliance assistance to change environmental practices where the environmental risks are high.
- Aggregate number of printing facilities.

ERP DESIGN

- Tools for Implementation
- Plain Language
- Technical support
- Web capabilities for data entry
- Environmental Business Practice Indicators (EBPI)
- Targeted Inspections
- Industry Incentives

Tools for Implementation

- Compliance Workbook: Media based compliance assistance that allows the certifier to refer to applicable sections : HW, IWW, Air Quality.
- Compliance Certification Statement: Self-certification audit that annually requires a responsible official to sign off that “systems are in place” for compliance.
- EBPI: Selected responses to questions on certification compared with in field observations for evaluation purposes.

Plain Language

- Regulatory language simplified for easy, user friendly, practical reading.
- Signs for Hazardous waste management in workbook ready for posting (i.e. Hazardous Waste accumulation area).
- Performance standards presented in quick lookup tables based on printing technology.

Screen Printing Performance Standards

Midsize & Large Printers

Product	VOC Limit (by Wt)
Printing Inks	400 g/L or 3.3 lbs/gal
Metallic Inks	400 g/L or 3.3 lbs/gal
Conductive Inks	850 g/L or 7.1 lbs/gal
Extreme Performance	800 g/L or 6.7 lbs/gal
Coatings	400 g/L or 3.3 lbs/gal
Adhesives	400 g/L or 3.3 lbs/gal

Technical Support

- A sector manager dedicated to the printing industry to support the technical and regulatory implementation of the program.
- Provide technical and regulatory support to the MassDEP regional inspectors.
- Associations have a contact for each ERP sector responsive to the issues that arise from their membership and the industry as a whole.

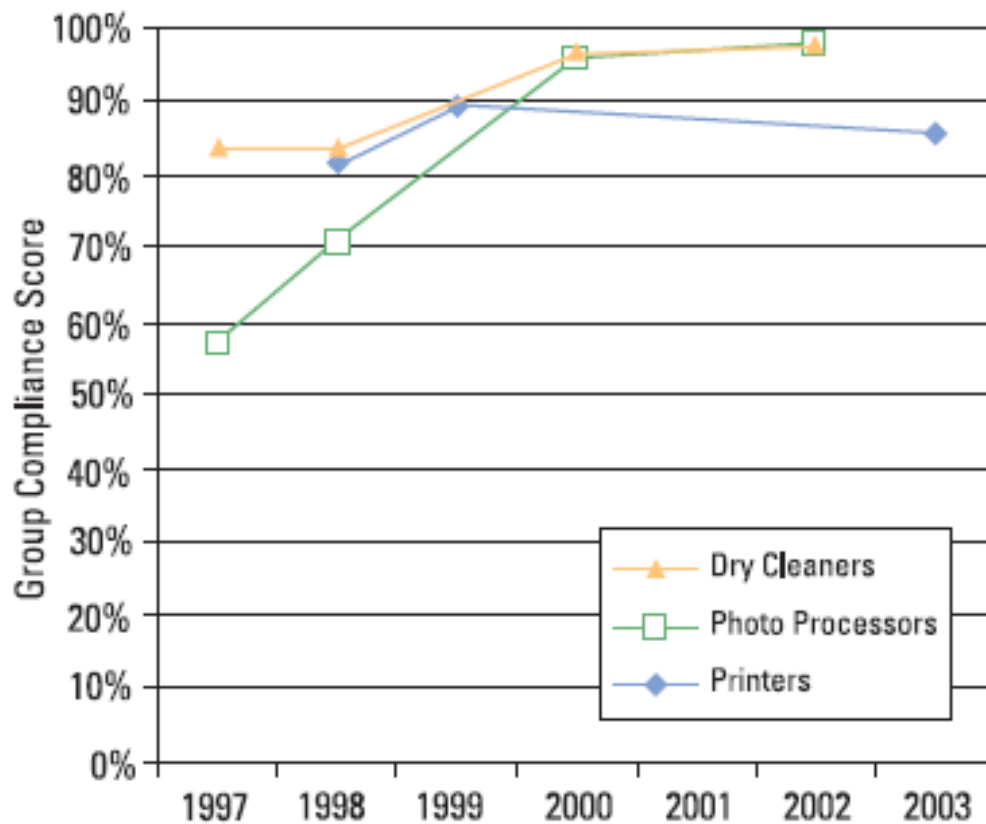
Web Capabilities

- Manual data entry is time consuming and resource intensive.
- eDEP: A contractor was hired to convert ERP forms to electronic media for direct data entry to DEP databases.
- Validation built into forms for QA/QC normally performed by staff.

Environmental Business Practice Indicators

- EBPI's are selected compliance certification questions that may be regulatory or represent Best Management Practices (BMPs) to score the performance of printing facilities.
- Inspectors use inspection checklist for all applicable requirements and BMPs including pollution prevention measures.
- A statistically significant # of inspections are conducted to evaluate the veracity and performance of printing facilities.

Figure 3. Long-Term Compliance Improvements in Massachusetts ERP Sectors



Targeted Inspections

- Data managers work with sector leads to build queries in access to find inconsistencies in responses in certification statement for targeting facilities.
- Facilities that have not certified are flagged for inspection.
- Use of other databases such as EMORS to target facilities that transport hazardous waste but have not been identified as subject to ERP.

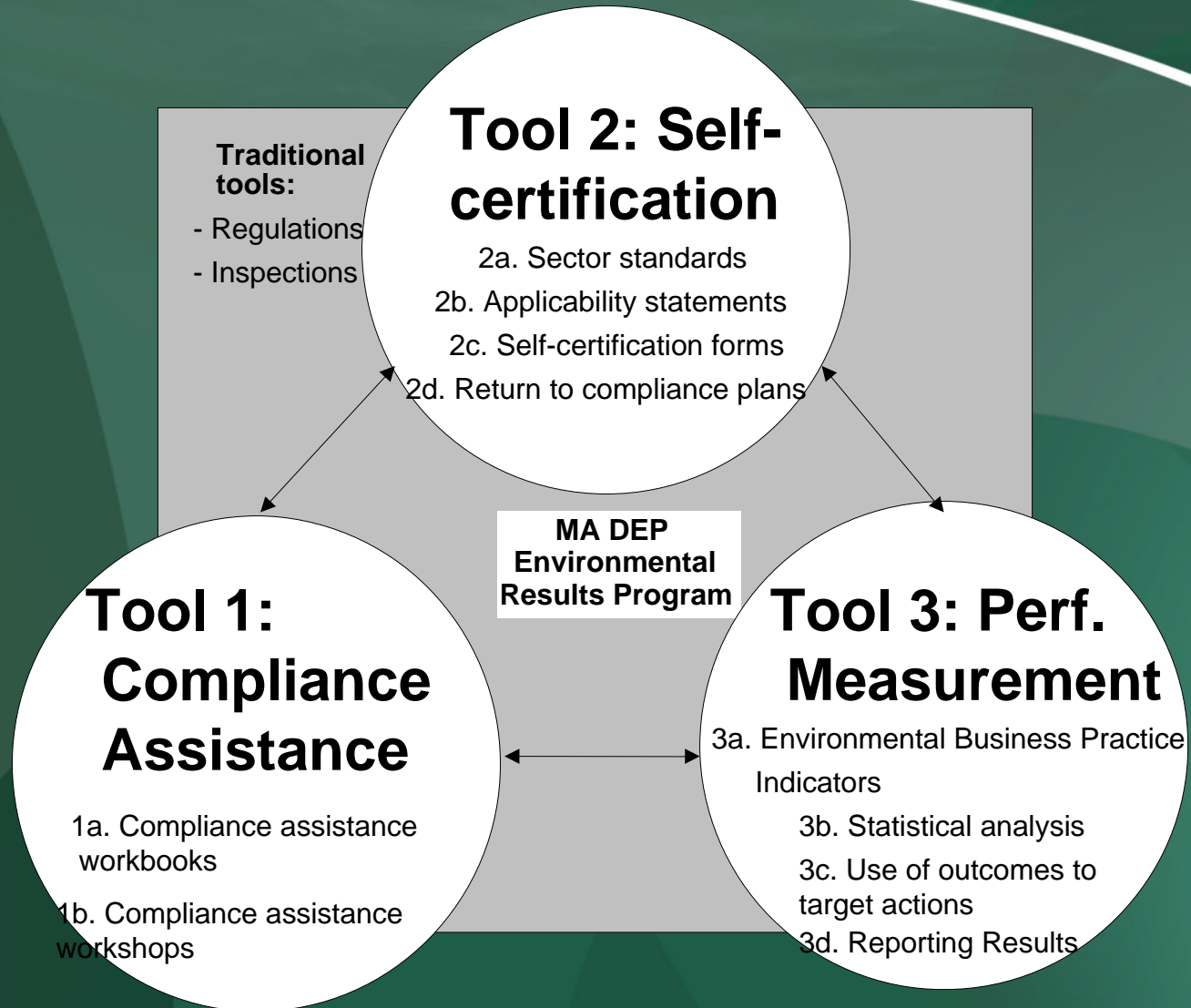
Industry Incentives

- Non-heatset and conforming printing presses may be installed and operated without the need for a permit.
- Regulatory changes to cleanup solutions such as blanket wash to meet the needs of the printing industry (vapor pressure requirement added to an existing VOC content requirement with equivalent reductions).

Industry Incentives (Continued)

- Weekly fountain solution VOC content averaging for multiple press operations allowed.
- Source Registration process streamlined with self-certification for large printers.
- Incidental materials up to 55 gallons that do not have to meet performance standards.

ERP Links



Contact Information

Marc Cohen

Environmental Engineer

Massachusetts Department of
Environmental Protection

1 Winter Street

Boston, MA 02108

(phone) 617.292.5873

(fax) 617.292.5832

marc.cohen@state.ma.us

Maine Environmental Results Program

Julie Churchill

**Maine Department of Environmental
Quality**

Office of Innovation: Background

- Office of Innovation promotes innovation through alternative volunteer initiatives:
 - *Environmental Leader Programs*
 - *Smart Tracks for Exceptional Performers and Upwards Performers (STEP-UP)*
 - *Governor Carbon Challenge (GCC)*
 - *Governor's Awards for Environmental Excellence*
 - *Green Lodging Certification*
- ERP fits our model concept promoting beyond compliance performance.

ERP Project: Background

- 2 Year program funded by EPA's State Innovation Grant
- October 2004 – March 2007
- Auto body sector in Southern Maine Region (York, Cumberland and Sagadahoc counties)
- Targeting air quality non-attainment and Environmental Justice areas

Maine ERP Program

- Self certification compliance model
- Voluntary program
- Performance Measurement
 - *59 baseline on-site surveys*
- Compliance Assistance
- Self Certification
- Performance Measurement
 - *59 follow up on-site surveys*
 - *Results (statistical analysis) of environmental compliance (based on site visits)*

Pollution Prevention Incentives

- LaserPaint Technology
 - *Awarded if employed 5 or more P2 concepts*
- Environmental Leader Logo
 - *Use in marketing material*
 - *Sticker availability*

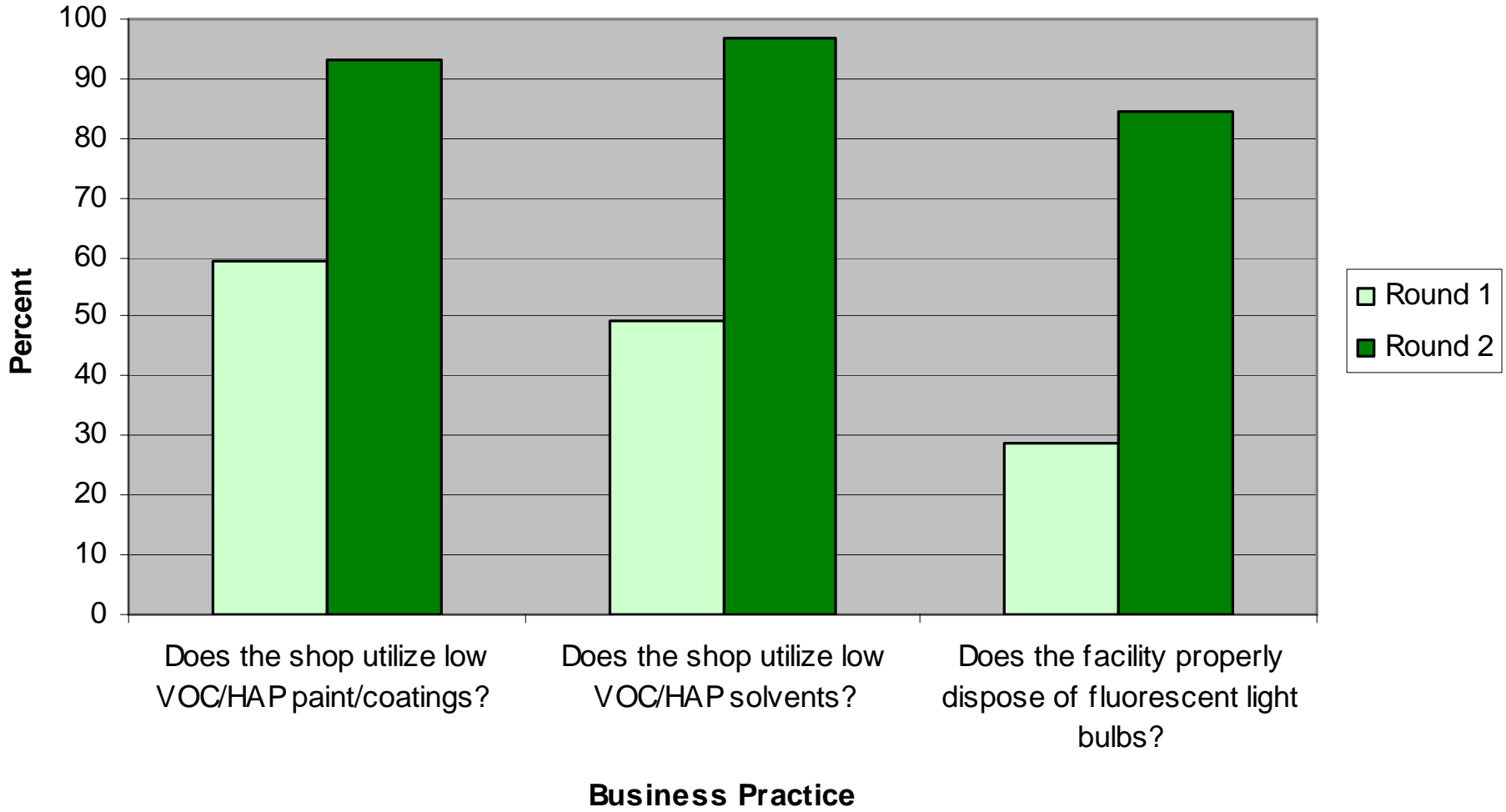
Maine Results

- 10.4 percentage point increase in overall environmental performance, examples:
 - *55.9 percentage point increase in compliance with Universal Waste.*
 - *47.4 percentage point increase in use of Low VOC solvent cleaners.*
 - *33.9 percentage point increase in use of Low VOC paints/coatings.*
- Increase in licensing (HW).
 - *8 Solvent distillation units licensed.*
- Increased communication with auto body sector.
 - *responsiveness increased from round 1 to round 2, phone calls & site visit communication.*

Maine Results (cont.)

- Strong communication and technical assistance by ERP staff during rounds 1 and 2 which focused on maintenance and use of equipment as well as increasing knowledge on greener products:
- Pollution Prevention
- Increase use of water-based cleaners (47.4 percentage points)
 - *Prep cleaners*
 - *Gun cleaners*
- Dust Control Systems (13.6 percentage points)
 - *Ventilation Sanders*
 - *Wet Sanders*
 - *Room Ventilation & Filtration Systems*

Dramatic Improvements



Awarding the Environmental Leaders

- Reviewed Self Certification Checklists
- Environmental Leader Logo
- Phone call and site visit verification
- 10 Facilities Awarded
 - LaserPaint Technology

Institutionalizing

Opportunities

- Establish and encourage relationships with regulated community which encourages communication.
- Increase compliance.
- Reach many more facilities than traditional regulatory model.
- Increase P2 awareness within regulated community.
- Increase P2 awareness in regulatory programs.
- Increasing Flexibility in regulatory programs through Element 13 etc.
- ERP Consortium building consensus and support for ERP states.
- Common Measures Project is building technical merit for ERP concepts including performance measurement.

Institutionalizing

Barriers

- Change is not embraced readily in traditional regulatory program due to the prescriptive nature of their programs.
- Understanding how the work benefits states and EPA which delegates regulatory programs.
- Need EPA support nationally and regionally including both Innovation and regulatory programs such as OECA.
- Lack of flexibility in traditional regulatory programs (Element 13 value not understood).
- Establishing continued funding & staffing mechanism.

Further Information On Maine ERP

Maine ERP Web site

<http://www.maine.gov/dep/eleader/erp/>

Maine Innovation Web site

<http://www.maine.gov/dep/oia/>

Contact Information

Julie M. Churchill, Assistant Director
Office of Innovation
Department of Environmental Protection
17 State House Station
Augusta, ME 04333-0017
Phone: 207.287.7881
Fax: 207.287.2814
julie.m.churchill@maine.gov

Lessons Learned from WI Printers' ERP

Renee Bashel
Wisconsin SBCAAP

About WI Printers' ERP

- DNR Grant Manager, SBCAAP Project Lead (in Dept of Commerce).
 - *SBCAAP coordinated with DNR Media programs and trade representatives.*
- **Voluntary**, for Printers below 25 TPY criteria and 5 TPY/12.5 TPY HAPs.
 - *matches eligibility for Air Registration Permit for Printers.*
- Workbook covers Air, Waste, Water, Spills, EPCRA, SPCC, and P2/BMPs.
- Have inspectors from 2 DNR programs, but tried to get others' involvement.

What Worked Well

- Trade Associations and Industry Representatives involved in development
 - *good resource on abilities of members*
- Cross-agency involvement on development of materials
 - *pushed technical folks to accept plain language*

What Didn't Work

- Multiple editing rounds in writing workbook.
- Trying to cover everything in workbook.
 - *too many topics, too much detail on each.*
- Only had a couple test runs of data entry software, and didn't run through multiple scenarios early enough.
- Limited program support for conducting inspections.

Jury's Still Out

- Will we get enough baseline inspections done before workshops scheduled?
 - *won't get desired statistical results without.*
- Will voluntary self-certification program generate a good return rate?
- Will we get enough attendance at workshops in **mid-July** to generate good self-certification forms?

What Could Improve Process?

- More Detailed Checklist of each step, with intermediate steps outlined well, available at initial grant proposal stage.
 - *limited resources when I started.*
 - *not enough detail on important “things to consider.”*
- EPA regional support to substitute ERP inspections for core inspections.
 - *media programs more likely to volunteer staff to help get inspections done.*

What Would I Do Different?

- Limit scope of universe for first attempt.
 - *Pick sector where manageable number of inspections required – not 200!*
- Minimize editing steps.
 - *do not write by committee.*
 - *offer limited rounds of comments to stakeholders (first draft, confirm changes).*
- Train inspectors **MONTHS** before deadline to start inspections.

What Would I Do Different?

- Too much for one person to do – especially when many steps should occur simultaneously.
 - *Editing workbook*
 - *2 years - sporadic*
 - *Universe of sources*
 - *part time help took months to sort through*
 - *Statistical decisions and methodology write-up*
 - *even with part time help who knew stats*
 - *Fixing the inspection software*
 - *originally designed by another state, but can't dip into their time for minor problems*
 - *Documenting audit immunity policy*
 - *enforcement discretion too shaky to rely on*

Would I Do it Again? Yes, if...

- Focus on smaller sector with driving reason to need regulatory information and training.
 - *i.e. Autobody Refinishing b/c impending NESHAP.*
- ERP is sole focus of grant.
 - *WI split focus with EMS permits for large printers.*
 - *that funding would have made pieces of ERP easier to complete.*
- I had more control over grant funds, rather than through contract with another agency.
- Not full ERP, but compliance assistance tool w/o inspections.

What Resources are Available?

- States ERP Consortium
 - *workgroups focus on key issues*
 - *sharing information with new programs*
 - *tools to automate your program early*
 - *building EPA support*
 - *inspection flexibility through Element 13 or PPA language*
 - *work in ERP compliance options in NESHAPs*
 - *reporting results on ERP*
- See handouts on Materials Exchange table – limited copies

Contact Information

Renee Lesjak Bashel

WI Clean Air Small Business

Ombudsman

P.O. Box 7970, 5th Floor

201 West Washington Avenue

Madison, WI 53707-7970

Phone: 608.264.6153

Fax: 608.264.6151

renee.bashel@wisconsin.gov

ERP Resources

- EPA'S ERP website:
<http://www.epa.gov/permits/erp/>
- EPA'S State Innovation Grant
<http://www.epa.gov/innovation/index.htm>
- ERP State Results 2007 Report – Executive Summary
http://www.epa.gov/erp/erp_states.pdf

Questions and Discussion

