

Continuing Integration of P2 into Compliance Efforts through Multiple Projects, Diverse Resources and Organizations

Presented by

Dr. Gary Miller, Director, Printers' National Environmental Assistance Center

Becky Lockart, Regulatory Integration Program Director, Illinois EPA

Laura Fiffick, Environmental Affairs Manager, Protection Services Division, Port of Houston, Texas

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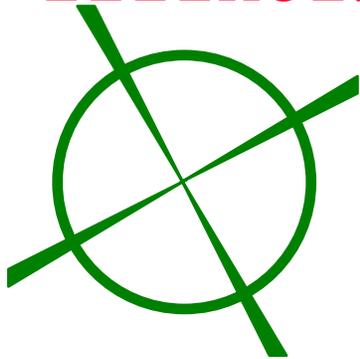
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Integration of P2 and Compliance in the Printing Sector

by

Gary Miller, Director
Printers' National Environmental
Center

Illinois Waste Management and Research



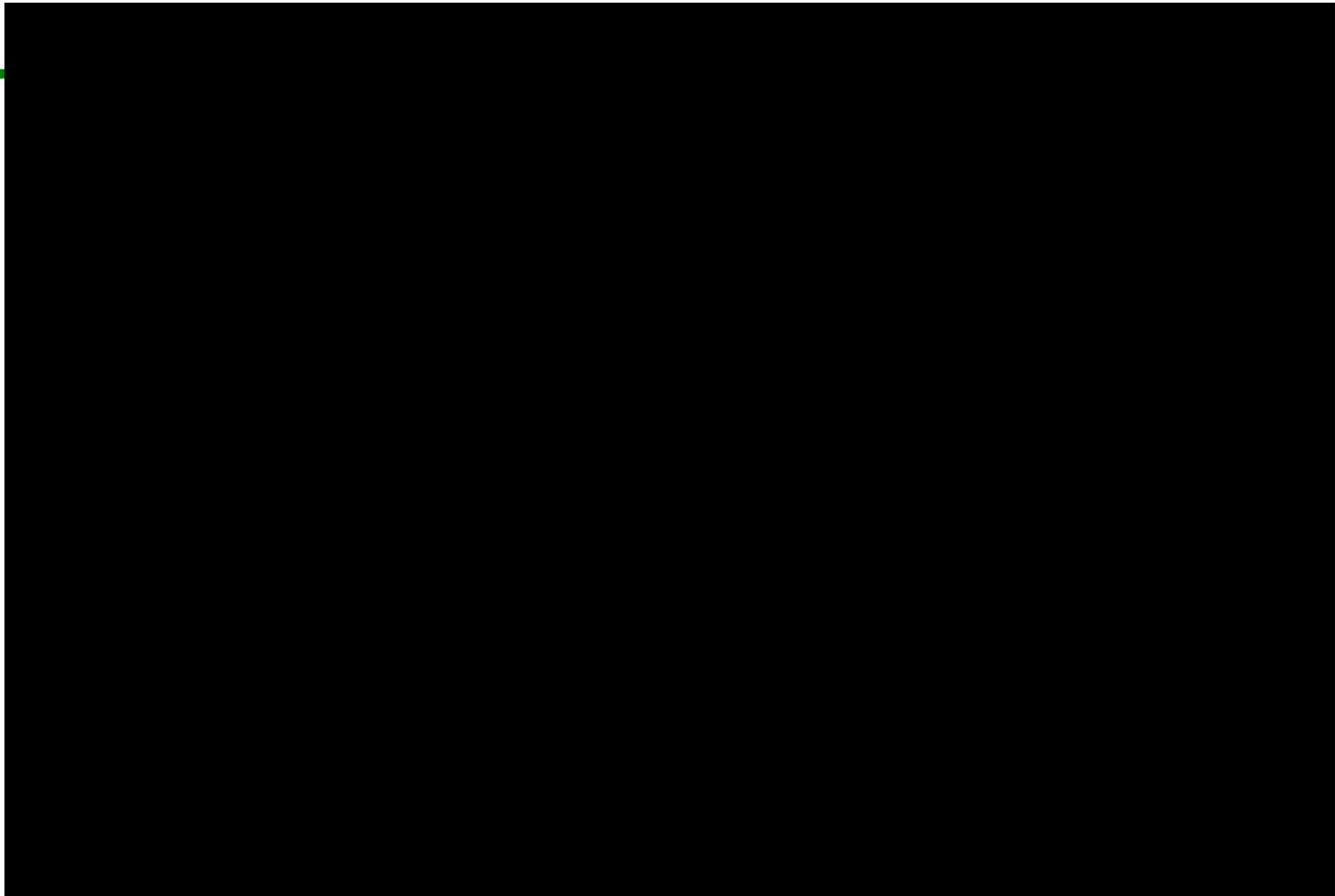
PNEAC

Key Questions

- ◆ Effective Partnerships
- ◆ Benefits of a Sector Approach
- ◆ Challenges of a Sector Approach
- ◆ Tools Available – Information & Training
- ◆ Example Efforts
- ◆ Integration Suggestions – Compliance Tool Development and Delivery

Printing Industry

- ◆ Not one process – 6 main technologies (lithography or offset, screen, flexography, rotogravure, digital and letterpress)
- ◆ Different inks, cleaners and other chemicals
- ◆ Rapidly changing technology
- ◆ Number of employees, distribution



Printing is one of the largest manufacturing industries in the United States

- employing over 1,173,000 people
- almost 50,000 establishments —
- selling over \$155.7 billion (1999)
- dominated by small- and medium-sized businesses
- most have fewer than 20 employees

Top 10 States – % of

- ◆ California (9) – 12.4%
- ◆ N e w Y o r k (2) – 8.1%
- ◆ Illinois (5) – 7.1%
- ◆ Texas (6) – 6.1%
- ◆ Florida (4) – 4.4%
- ◆ Pennsylvania (3) – 4.4%
- ◆ Ohio (5) – 4.3%
- ◆ New Jersey (2) – 3.9%
- ◆ Michigan (5) – 3.7%
- ◆ Massachusetts (1) – 3.0%



Major Environmental Under Development on Printing

- ◆ NESHAP for Printing and Publishing Industry: Amendments
- ◆ NESHAP for Paper and Other Web Coating
- ◆ Offset Lithographic Printing National VOC Rule
- ◆ Consumer and Commercial Products: Flexible Package Printing Materials: Determination on Control Techniques Guidelines in Lieu of Regulations
- ◆ Chromium Electroplating MACT Revisions and Residual Risk
- ◆ NESHAP: Industrial Boiler and Process Heater MACT

Role of PNEAC

- ◆ Industry/government/university partnership established in 1994
- ◆ Listservs
- ◆ Web site – develop & organize content
- ◆ Training – teleconference & workshops
- ◆ Develop/foster better relationship between industry and government

Who Does PNEAC Serve?



- ◆ “Wholesale” Level
 - Technical Assistance Providers
 - Regulators
 - Industry Trade Associations
 - Graphic Arts Educators

- ◆ “Retail” Level
 - Printers
 - Print Industry Vendors

PNEAC Operating



- § EPA Office of Enforcement and Compliance Assurance
- ➔ IL Waste Management and Research Center (WMRC) – Univ. of Illinois
- ➔ U. of WI Solid & Hazardous Waste Education Center (SHWEC)
- ➔ Graphic Arts Technical Foundation (GATF)
- ➔ Printing Industries of America (PIA)

PNEAC Advisory Council



- National Association of Printers and Lithographers (NAPL)
- International Association of Printing House Craftsmen
- Gravure Association of America (GAA)
- Screenprinting and Graphic Imaging Association (SGIA)
- Flexible Packaging Association
- Flexographic Technical Association (FTA)
- Clean Air Act Small Bus. Assist. Programs
- Association of Small Business Development Centers (SBDCs)
- National Pollution Prevention Roundtable
- National Institute of Standards and Technology
- Envir. Defense Fund (EDF)
- Council of Great Lakes Governors

PNEAC Listserves



- ◆ Printech: Focuses on P2 technical issues; over 270 subscribers
- ◆ Printreg: Focuses on regulatory Issues; over 240 subscribers
- ◆ Participants primarily include technical assistance providers, trade associations, and regulators
- ◆ Questions from printers referred from assistance providers or PNEAC World-Wide Web site
- ◆ Dialogues archived at PNEAC World Wide Web site.
- ◆ To subscribe, complete form at www.pneac.org or contact Wayne Pferdehirt (pferdehi@epd.engr.wisc.edu)

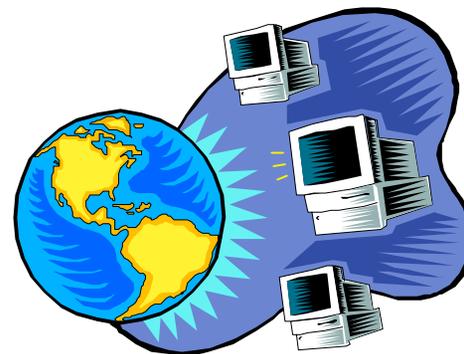
Listserv Users

◆ Printer	87
◆ Vendor	43
◆ Trade Association	40
◆ Regulatory Agency Non P2	29
◆ Regulatory Agency P2	11
◆ P2 Tech, Assist Provider	27
◆ Consultant	27
◆ Academic	15
◆ Environmental Org	7
◆ Other	7
◆ Personal	5
◆ Small Business Assistance Program	3
◆ Unknown	<u>23</u>
◆ TOTAL =	324

PNEAC World-Wide Web Site

www.pneac.org

- ◆ Hot News
- ◆ Ask PNEAC
- ◆ Printech & Printreg Archives
- ◆ Fact Sheets & Case Studies
- ◆ Compliance Info & Contacts
- ◆ Info on Federal and Regional Printing Initiatives
- ◆ Links to Other Printing-Specific Web Resources
- ◆ Calendar of Workshops & Conferences
- ◆ Directory of Vendors & Suppliers
- ◆ Completely Searchable



Example Fact Sheet

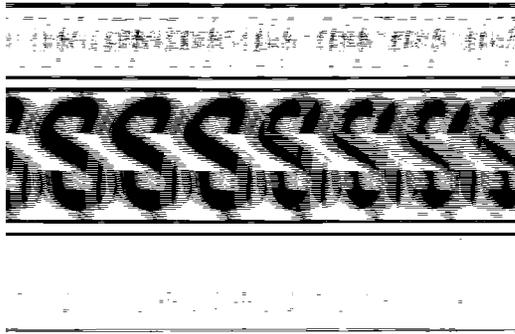
- ◆ Compliance Issues for Lithographic Printers
- ◆ Reducing TRI Releases (Romo Case Study)
- ◆ Management of Solvents and Wipes
- ◆ Demystifying EMS
- ◆ Acetone Regulation and Pollution Prevention
- ◆ Basic RCRA Recordkeeping Requirements for Printers
- ◆ Universal Waste Rules and How They Affect a Printer
- ◆ 70+ more

Training Programs

- ◆ 4 national teleconferences (Video)
- ◆ 25 workshops for regulators, technical assistance providers and printers
- ◆ **PrintSTEP - Pilot Testing an Alternative Multi-Media Flexible Regulatory System (MN, MO & NH)**
- ◆ Florida workshop example

Green and Profitable

'96 and '97



- ◆ Reached over 3,000 participants at over 100 sites in U.S. and Canada
- ◆ In survey conducted 14 months after '96 videoconference:
 - 92% of surveyed printers reported improved environmental compliance
 - 97% said they had since adopted 1 or more waste reduction strategies featured in videoconference
 - 97% said they would recommend videoconference to other printers

Rulemaking Interaction

- ◆ Trade associations at the table with USEPA or states
- ◆ Cooperative development of outreach materials
- ◆ Potential collaboration to deliver outreach
- ◆ Training available & being developed (on-line)
- ◆ Use of listservs, web site, “Ask PNEAC”

Printing Roundtable

- ◆ Evaluate & Recommend Effective Programs
- ◆ Recommendations Included:
 1. Integrate projects across media offices
 2. One contact for all state regulations & USEPA
 3. Develop a common set of metrics
 4. Create state-specific materials
 5. Sustain successful programs
 6. Train staff at all levels

P2 Through Permits Project With OAQPS

- ◆ Define efficient ways to meet existing air requirements and to provide sufficient operational flexibility
- ◆ Developing model permits at 3 facilities
- ◆ Plan to produce a technical support document – permitting guide on testing, monitoring, recordkeeping, reporting & emissions calculation

Focus Group

- ◆ SUPPLIERS and TRADE ASSOCIATIONS are main sources of information and assistance for small printers
- ◆ CONFIDENTIALITY is a key concern
- ◆ Printers have great DIFFICULTY OBTAINING RELIABLE, UNBIASED ENVIRONMENTAL, POLLUTION PREVENTION AND SAFETY INFORMATION and they welcome help
- ◆ Small printers have LIMITED INTERNAL RESOURCES AND TIME



Focus Group

- ◆ GOVERNMENT agencies are perceived as a THREAT; NOT KNOWLEDGEABLE about printing
- ◆ Government INITIATIVES AND ASSISTANCE PROGRAMS ARE CONFUSING OR UNKNOWN
- ◆ RELEVANT TO THE printers' specific situation
- ◆ TRAINING on regulations & "how to"
- ◆ COORDINATE GOVERNMENT-RELATED PRINTING INITIATIVES
- ◆ EDUCATE OTHERS about printing



How Can PNEAC Help You?

◆ If You Are A Printer:

- Increase access to printing-specific, understandable compliance information
- Give you practical, tested suggestions on how to reduce wastes and associated costs
- Access expertise

◆ If You Help or Regulate Printers:

- Improve your understanding of printing and environmental challenges facing printers
- Improve your access to the best technical and training resources to support your work with printers
- Help you connect with experts and peers working with printers

Pollution Prevention Regulatory Integration in Illinois

Becky Lockart

Office of Pollution Prevention

Illinois Environmental Protection Agency

What is Regulatory Integration?

- Changing focus of regulatory programs
- P2 is the specific environmental goal
- Incorporated into existing programs
 - Inspections
 - Permits
 - Technical assistance
 - Compliance assistance
 - Enforcement
 - Rule development

Preparing to Integrate P2

- Interviewed Agency inspection, permitting and enforcement staff
 - Factors/attitudes hindering P2 integration
 - Activities/staff perspectives conducive to P2 integration
 - Staff suggestions for integrating P2

Training

- Inspectors, Permit Writers, Planners, Compliance Assurance staff and Attorneys
- Teach P2 concepts
- Teach P2 approaches
- Provide knowledge about P2 technical resources
- Improve skills in identifying and communicating P2 opportunities
- Practice in real world situation what was learned in the classroom

Follow-up to Inspector Training

- **P2 Resources Box**
 - Materials in box range from fact sheets to sector notebooks
 - Given to each Regional Office and Satellite Offices
 - Purpose was to have P2 materials available to inspectors to prepare for inspections
- **Mentoring**
 - Inspectors still not comfortable making P2 suggestions
 - OPP will accompany inspectors

Follow-up to Inspector Training

- P2 Feedback Summary
 - Mechanism for measuring amount and type of P2 assistance offered
 - Developed by OPP in conjunction with Field Operations Section Managers
 - Numerous revisions

Follow-up to Inspector Training

- P2 Feedback Summary continued...
 - Information originally requested on P2 Feedback Summary
 - Basic facility information
 - Item manufactured or service provided
 - Raw materials used and amounts
 - Wastes generated and amounts
 - Hazardous Waste Generator Status
 - Compliance status at time of inspection
 - Facility's P2 efforts
 - P2 suggestions identified by Illinois EPA inspectors
 - P2 technical assistance requested

Follow-up to Inspector Training

- P2 Feedback Summary continued...
 - Changed P2 Feedback Summary to Checklist
 - List of P2 suggestions
 - Inspectors indicate which ones they discussed with facility
 - Still ask for:
 - Basic facility information
 - Item manufactured or service provided
 - P2 technical assistance requested

Follow-up to Inspector Training

■ POTW Project

- Village of Addison had problems meeting discharge limits
- OPP and WMRC assisted Addison Sanitary District field staff
 - visited 8 metal finishers
 - 100+ P2 suggestions
- Training for metal finishers

Follow-up to Inspector Training

- **Additional P2 Training**
 - **Waste Management and Research Center training**
 - **2 P2 Workshops annually**
 - general P2
 - metal finishing
 - parts washers/solvents
 - energy efficiency
 - coatings

Regulatory Integration Team

- Familiar with three media programs
- Met with managers from media programs
- Looked for ways to integrate P2 into media programs

Follow-up to Enforcement/ Compliance Training

- Workgroups
- Agency policy
- P2 in Notices of Violation
- P2 in SEPs

Follow-up to Permits Training

- Workgroups
- Bureau specific projects
 - Sector specific
 - Process specific

P2 in Rulemaking

- Work with Division of Legal Counsel and Bureaus
- Medical Waste Rules
 - Waste management plan
 - More stringent than Federal Rules

Using Non-IEPA P2

Resources

- Waste Management and Research Center
 - Part of DNR
 - Non-regulatory
 - "Real World" Knowledge
 - Laboratory Facilities
 - On-site Pilots
 - Accompany Inspectors on Inspections
 - Information Resource for Regulatory Staff
 - Assist Division of Legal Counsel in Technical Requirements of SEPs
 - Training for Regulatory Staff

What Has Worked at IEP A

■ P2 in Inspections

■ Works because ...

- Management support

- Management requires P2 Feedback

Summaries be completed for most types of inspections

- Converted to a checklist format so most common P2 suggestions are in hand during inspections

What We've Learned

- Management Support is Critical
- Need to define success for your agency
 - Won't get 100% participation
- Work with champions and those "on the fence"
- Giving feedback is important
- Facilities are listening to P2 suggestions made by inspectors

What We've Learned

- Need to expose regulatory staff to P2 ideas beyond classroom training to make them feel comfortable making P2 suggestions
- Inspectors won't cross media boundaries unless you give them resources they can use in the field (P2 Feedback Summary/Checklist)
- What works in one state may not work in another

For more information, please
contact:

Becky Lockart, Illinois EPA

217/524-9642 or

Becky.Lockart@epa.state.il.us