

# 2011 Compliance Assistance Conference

Resources to Help You Reduce Waste, Save Money and Achieve Compliance



Environmental  
Protection Agency

# Presenters

**Dan Sowry**

**Office of Compliance Assistance & Pollution Prevention**

**Dave Foulkes**

**Office of Compliance Assistance & Pollution Prevention**



**Ohio**

**Environmental  
Protection Agency**

# Today's Outline

- What is OCAPP?
- OCAPP compliance assistance services
- OCAPP roles
- What is pollution prevention (P2)?
- P2 can be a business & compliance tool
- Case studies (P2 success stories)
- OCAPP's P2 services



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# What is OCAPP?

- Office of Compliance Assistance & Pollution Prevention
- Non-regulatory (we're not inspectors!!!)
- Free
- One-stop shop for assistance





- **Central Ohio Contact**
  - Dan Sowry, (614) 728-8575
- **Northeast Ohio Contacts**
  - Adrienne LaFavre, (330) 963-1250
  - Pam Korenewych, (330) 963-1237
- **Northwest Ohio Contact**
  - Ron Nabors, (419) 373-3147
- **Southwest Ohio Contact**
  - Jim Pellegrino, (937) 285-6439
- **Southeast Ohio Contact**
  - Ralph Witte, (740) 380-5241

## OCAPP in the District Offices

## OCAPP Services

**OCAPP does not share information about its customers with inspection or enforcement staff.**

# OCAPP Services



- Toll-free hotline: **(800) 329-7518**
- Specialists available from 8:00-5:00 M-F
- Assistance with air permit applications
- On-site assistance (compliance assistance or pollution prevention assistance)
- OCAPP serves as a first stop for businesses seeking information

## OCAPP Services

- Workshops & conferences
- Develop publications (plain-English)
- Maintain on-line recycler lists
- Quarterly CA/P2 newsletter
- Help develop Web resources (Permit Wizard, Answer Place)



<http://www>

## OCAPP Roles

- Respond directly to incoming CA/P2 requests.
- Provide a one-stop point of contact to help address multimedia CA/P2 needs.
- Help to present information in a plain-English format.
- Interact extensively with the divisions to get information and coordinate on projects.

## OCAPP Accomplishments SFY 11

- Helped more than 2,200 businesses with their pollution prevention and compliance needs.
- Conducted 223 site visits to help companies with compliance and pollution prevention.
- Participated in 41 presentations and training events to help educate Ohio businesses and organizations about P2 and compliance reaching more than 1,400 individuals.



## **OCAPP Accomplishments SFY 11**

- **Distributed more than 4,891 publications to external customers. OCAPP also provided its newsletter Compliance and Prevention Quarterly to more than 5,200 Ohio businesses.**
- **Developed 25 new publications.**
- **Environmental Stewardship Awards**
  - **Coordinated and recognized two Ohio companies for their commitment to being outstanding stewards of Ohio's environment.**

# What Is Pollution Prevention?

- Front of pipe
  - Preventative strategy/proactive
- Process focused
  - Optimizes processes/prevents losses
  - Losses (wastes) = REGULATION
- True reductions
  - Real measurable environmental benefit
- Foundation for sustainable, lean & green strategies



# What Is Pollution Prevention?

- Go beyond compliance
  - Not only can meet, but go beyond
  - Problem solving/management strategy
- Cost-effective
  - Reduces raw materials, value-added system/process



# P2 in Manufacturing

- Substitute less toxic materials
- Product redesign
- Modify equipment/process
- Production scheduling
- Preventative maintenance
- Spill and leak prevention
- Energy efficiency



# Manufacturing P2



**Material handling improvements**

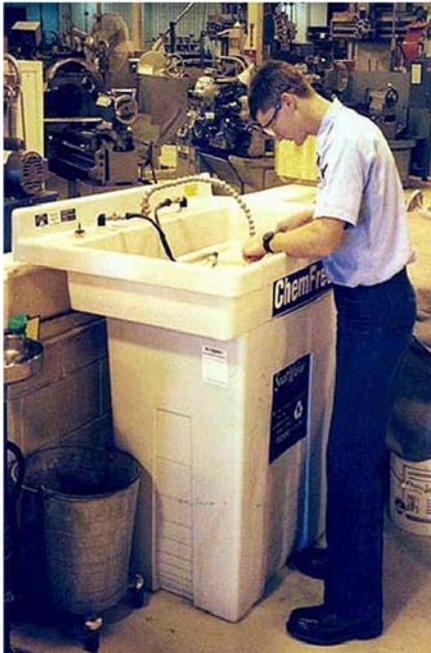
**Material substitution – powder coating**



**Improved equipment & operator practices**



# Manufacturing P2



Enzyme cleaners

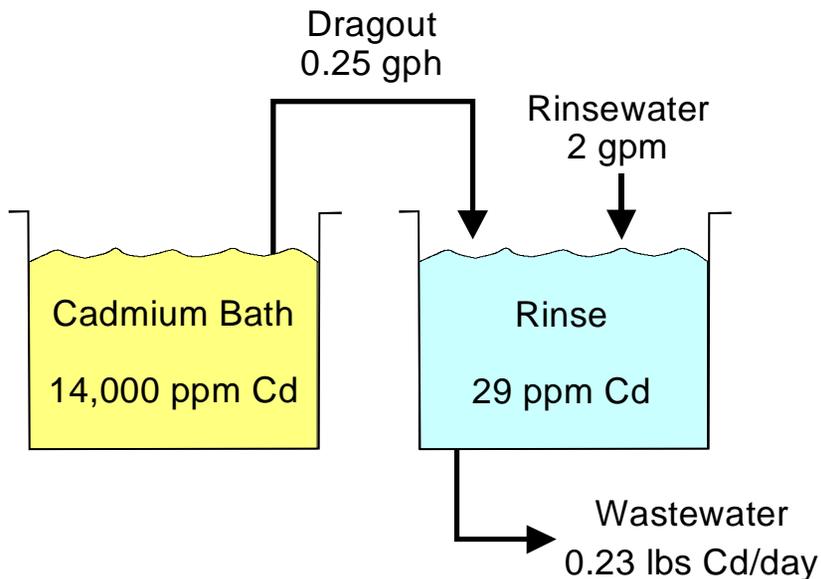
By-product reuse



Energy efficiency

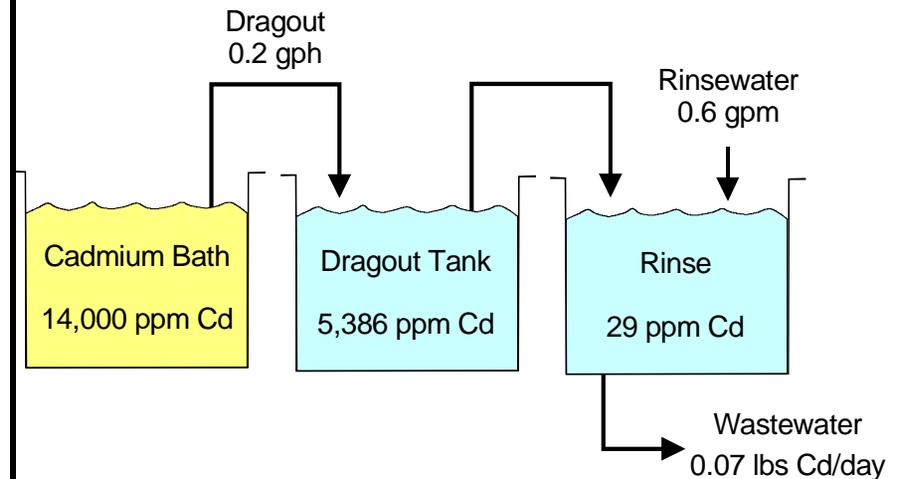
# Equipment/Process Change Impact Example

## Before



- Single stage rinse
- Rinse water flow rate = 2 gpm
- Dragout rate = 0.25 gph
- Cadmium discharge = 0.23 lb/day

## After



- Dragout tank followed by rinse tank
- Rinse water flow rate = 0.6 gpm
- Dragout rate = 0.20 gph
- Cadmium discharge = 0.07 lb/day

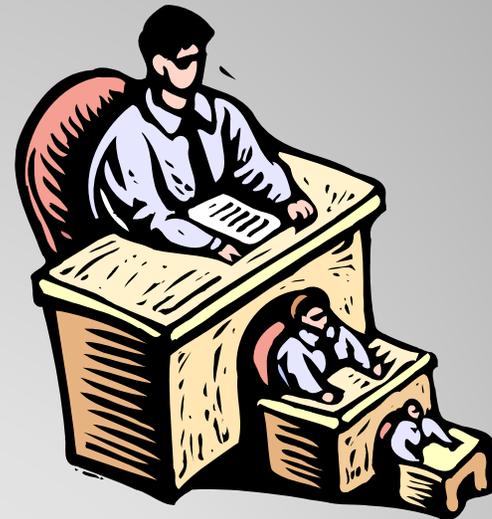
# Equipment/Process Change Impact Example



Transfer Efficiency (TE) Improvement	Waste Costs @ 30% TE	Waste Costs @ 45% TE	Savings Due to TE Improvement
Cost of waste + filters + labor	\$29,649	\$15,530	\$14,119
Cost of wasted paint	\$73,101	\$38,291	\$34,810
Total cost of waste	\$102,751	\$53,822	\$48,929

# Developing Internal P2/Sustainable Program

- Management commitment
- Employee involvement
- Track waste costs
- Conduct periodic assessments
- Measure & continuously improve



# P2 Case Study - Neaton Auto Parts Manufacturing, Inc.

- Neaton Auto Parts Manufacturing, Eaton, Ohio
- Steering wheels, instrument panel components, trim parts, air bag covers
- Large quantity generator (LQG) and title V facility
- Used "kaizen" P2 approach



# Neaton

- Investigated paint line improvements to air bag cover line
  - Redesigned robots, installed humidity controls, added blow-off stations
  - Saved \$333,000 in reduced paint use
  - Reduced VOCs by 8 tons
- Substituted color resin substrates for dash board panels
  - Reduced VOCs by 13 tons
  - Part of \$745,325 total first year savings for department

# Neaton

- Installed enclosed paint gun cleaners and a solvent distillation unit in RIM department
  - Reduced hazardous waste generation by more than 41,000 lbs.
  - Saved more than \$42,144 annually
- Re-examined mold cleaning schedule
  - Changed from cleaning once a shift to once a day
- Reduced scrap from 60 parts a day to 20 parts day
  - Saved more than \$124,454 in materials
  - Reduced solid waste by over 59,000 lbs.

# P2 Case Study - Mill's Pride

- Mill's Pride, Waverly, Ohio
- Manufacturer of hardwood kitchen cabinets and accessories
- Implemented several P2 projects
  - Based on recommendations from P2 assessment conducted by Ohio EPA
- Saved \$472,000 in the first year after making improvements



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# Mill's Pride

- Installed reciprocators on coating line
  - Component of spray gun w/ electric eye
  - "Reads" edges of board, shutting off the spray
  - Decreased over spray & increased transfer efficiency by 35%
- Reductions from transfer efficiency increase
  - 33 less drums of hazardous waste solvents & coating
  - Saved \$27,000 in disposal costs
  - Purchased 35% less stain, top coat & sealer (\$432,000 savings)
  - 30% reduction in VOC emissions (137 ton annual reduction)

# Whitaker Surface Systems

- Whitaker Surface Systems, Toledo
  - Job shop electroplater
  - Automotive, appliance, electronic, houseware & hardware
- P2 in hazardous waste enforcement settlement
- P2 activities
  - Installed spray rinse
  - Counterflow rinsing
  - Flow restrictors
  - Modified rinse tank design
  - Automated spray barrel rinsing system



# Whitaker Results

- Reduced water by 7,400 GPD
  - 15% reduction (1.85 million gallons annually)
- Reduced associated wastewater generation
- Reduced chromium by 420 pounds annually



# P2 Case Studies



- Crown Equipment, New Bremen
  - Installed Power Coating Line
  - Eliminated large portion of wet painting operations
    - 65% reduction in wastewater & sludge (200,000 lbs)
    - Save \$45,000 in labor, housekeeping & disposal
- Masco Retail Cabinet Group, Middlefield
  - Invested in computer/purchasing technology
    - Purchased wood w/ optimum dimensions
    - Highest yield from raw material
    - Less scrap and housekeeping activities

**MASCO**  
Retail **Cabinet** Group

# OCAPP's P2 Services

- P2 assessments
  - On-site survey of operations to identify & evaluate waste & pollution reduction opportunities
  - Identify ways to reduce associated waste costs
  - Optimize resources, minimize non-product related resources & increase productivity
- Online resources
  - P2 documents & guidance
  - Online training for metal finishing, painting, sustainability, etc.

# Where Can I Get More Help?

Office of Compliance Assistance & Pollution Prevention

[www.epa.ohio.gov/ocapp](http://www.epa.ohio.gov/ocapp)

(800) 329-7518



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