

# Flexible Air Permits

Presented By:

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# Quick Background

## Printing Industry

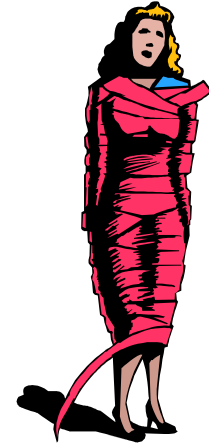
- About 80,000 companies apply ink on substrate
- Six major print processes
  - *Lithography*
  - *Flexography*
  - *Screen printing*
  - *Rotogravure*
  - *Letterpress*
  - *Digital*
- Over 80% of printers have 20 employees or less



# Flexible Air Permits

## Elements of Inflexible Permits

- Material consumption limits
  - *VOC/HAP content & usage*
- Individual source (press) limits
- Modifications require case-by-case approval
- Frequent or incorrect monitoring requirements
  - *Methods and frequency*
- Incorrect compliance demonstration
  - *Test methods, and conditions*
- Daily recordkeeping
  - *Sources (presses) and insignificant sources*



# Flexible Air Permits

## Elements of Flexible Permits

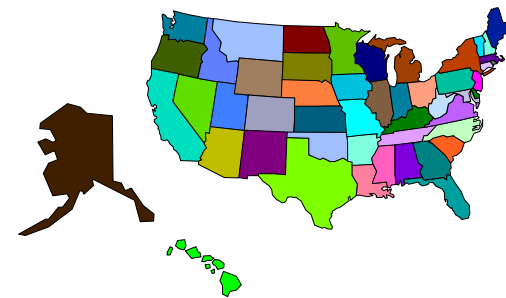
- Emission based limits
  - *Facility or Source (press)*
  - *Input material use indicators*
- Pre-Approved modifications
- Appropriate & correct monitoring requirements
  - *Parametric*
- Correct compliance demonstration
  - *Test method and representative conditions*
- Recordkeeping
  - *Monthly or annual emissions*
  - *None for insignificant sources*



# Flexible Air Permits

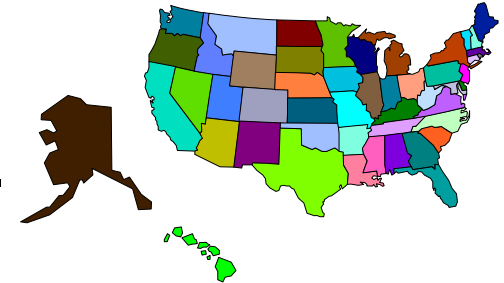
## State Approaches

- General Permits
  - *Work with existing regulations*
  - *Single permit written for many companies*
  - *Uses traditional application/permit issuance*
- Exclusionary rules or permit-by-rule
  - *Rule contains applicable control requirements*
  - *Simple application – one page*
  - *No permit is issued*



# Flexible Air Permits

## State Approaches



- Benefits
  - *Can be used as a Title V Operating Permit*
    - More commonly used to amend Title V Operating Permit
  - *Limits emission below major source (MS) threshold*
  - *General Permits can be used to add sources at MSs*
  - *Flexible control requirements*
  - *Simpler application process*
    - Industry specific application
    - Use of input material indicators or emission calculations
  - *Streamlined administration*
    - No negotiation, fast issuance (>30 days), no public hearing
  - *Reduced permit fees*

# Minnesota FESOP Permits

- January 2003 Printer FESOP Permit
- VOC emission limit
  - *Allows 99 TPY increase from current level*
  - *Max emission limit of 232.5 TPY*
- HAP emission limits
  - *22.1 TPY for all HAPs*
  - *9 TPY for single HAP*
- Production limit
  - *1,300,391.7 Impressions/Hr*
    - Impression is 22.75 x 38 Inches (6 sq ft)
- 12 Month rolling emission recordkeeping



# Minnesota FESOP Permits



## Pre-Authorized Changes

- The permittee may
  - 1) *Modify the listed emission units (Presses)*
  - 2) *Replace the listed emission units with emission units similar to those listed in GP001*
  - 3) *Add emission units similar to those listed in GP001*
    - Provided VOC and HAP emissions are tracked and calculated as specified in this permit, and all other permit conditions are met.
- Allows oxidizer(s) replacement



# USEPA Flexibility Approaches

- White Papers 1, 2, and Proposed 3
  - *Provides Guidance On Title V Permitting Issues*
  - *WP 1-July 1995, WP 2-March 1996, WP 3-Aug 2000*
- New Source Review Reform
  - *Started July 23, 1996 with proposed rule*
  - *Rulemakings & court challenges continue*
- Potential To Emit (PTE) Guidance for Specific Source Categories
  - *Released on April 14, 1998*



# USEPA Flexibility Activities



- PrintSTEP
  - *Pilot program In St. Louis and New Hampshire*
  - *Project completed 2005 – Report 2006*
- Technical Support Document for Title V Permitting of Printing Operations
  - *Released June 2007*
- Flexible Air Permit Rule
  - *Finalized January 13, 2009*
  - *Put on hold as it is being reviewed*

# White Papers



- White Paper 1 - streamlines Title V permit application
  - *Emission calcs only when necessary*
  - *Checklist for insignificant sources*
  - *Allow general description and grouping of EUs subject to same limits*
- White Paper 2 - streamlines operating permit condition
  - *No testing for insignificant sources*
  - *Grouping of EUs under most stringent requirements*
  - *Allows alternative requirements and testing*
- White Paper 3 - design of flexible air permits
- WP1 and WP2 can be found at
  - *[www.epa.gov/ttncaaa1/t5wp.html](http://www.epa.gov/ttncaaa1/t5wp.html)*



# Potential To Emit

## PTE Guidance For Specific Source Categories

- Applies to sources with actual emissions < 50% major source threshold (MST)
  - *Addresses 8 source categories including printing*
- No consideration for add-on controls
- Translator tables for environmental indicators
  - *Conservative assumptions and set at 50% of MST*
- Formulas presented for calculating VOC/HAP emissions
- Memo and Technical Support Document
  - [www.epa.gov/ttn/oarpg/t5pgm.html](http://www.epa.gov/ttn/oarpg/t5pgm.html)
  - *Scroll down to Memo and TSD dated 4-14-98*

# Potential To Emit

## Sheetfed Offset Lithography Translators

- Extreme (10 TPY)
  - *1,425 Gals Cleaning Solvent and FS Additives*
- Severe (25 TPY)
  - *3,550 Gals Cleaning Solvent and FS Additives*
- Serious and OTR (50 TPY)
  - *7,125 Gals Cleaning Solvent and FS Additives*
- Moderate and Marginal (100 TPY)
  - *14,275 Gals Cleaning Solvent and FS Additives*
- HAPs (10/25 TPY)
  - *1,425/3,550 Gals Cleaning Solvent & FS Additives*

# PrintSTEP



- **Printers Simplified Total Environmental Partnership**
- Multi-Media pilot program regulating
  - *Air emissions*
  - *Waste water discharges (including storm water)*
  - *Hazardous waste*
- Uses an Enforceable Agreement
  - *No Permits!*
- Increased understanding of requirements, reduced air emissions, waste, some recordkeeping & admin
- [www.epa.gov/oecaerth/assistance/sectors/printstep.html](http://www.epa.gov/oecaerth/assistance/sectors/printstep.html)

# TSD For Title V Permitting of Printing

## TSD Major Issues

- Six main chapters and appendices
  - *Overview*
  - *Title V applicability to printing operations*
  - *MACT applicability and compliance*
  - *Monitoring and practical enforceability\**
  - *Compliance testing\**
  - *Permit streamlining & minimizing unnecessary revisions\**
  - *Appendices\**
    - Monitoring protocols
    - QA/QC program

\* *Applies to sources other than printing operations*



# Flexible Air Permit Rule (Title V)



- Pre-approval for modifications
  - *Alternative operating scenarios (AOSs)*
  - *Approved replicable methodologies (ARMs)*
- AOS - allows changes to operations of existing EUs without permit revision
  - *Must identify scenarios & applicable requirements*
- ARM - replicable protocol to facilitate compliance with an applicable requirement in situations that otherwise could require a permit revision
  - *ARM could specify a replicable testing procedure for updating an emissions factor, rather than a permit revision*
  - *ARM must be based on sound scientific/mathematical principles and deliver replicable results (usually numerical)*





# Final Thoughts



- Several approaches and tools to develop and implement flexible air permits
  - *Approach depends upon size of source*
- Flexible permits reward and encourage pollution prevention
- Flexible and streamlined permits benefit both industry and permitting authorities
  - *Reduced costs, increase efficiency and permit issuance, predictable outcomes, allow industry to rapidly respond to market conditions, etc...*

# Thank you for listening!

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