# Regulatory Developments for UV/EB from the West Coast

Rita M. Loof

Director, Environmental Affairs

RadTech International NA

# RadTech International

- Environmental Health & Safety Committee
  - Providing information about UV/EB to federal, state and local government
  - Ensuring a place for UV/EB in legislation
  - Provide industry  added tools to make a case for UV/EB

# Enduser subjected to various regulations

- Federal level: Environmental Protection Agency
- State level: CA Air Resources Board
- Local level: Air Districts
  - Southern California typically has the most stringent emission requirements
- Volatile Organic Compounds (VOCs); Toxics,
- Greenhouse Gases; Energy Efficiency

# Command and control vs. incentives

- Command and control rules
  - Technology forcing
  - Mandate a specified VOC limit
- Incentives
  - Exemptions from rules
  - Regulatory relief
  - Financial  (Voting District Authorization = Tax Increase)

# UV/EB's role

- Avoid applicability
  - Staying below thresholds through VOC reduction
- No need to install air pollution control devices
- UV/EB enables facilities to stay in compliance
- Drastic emission reductions (near zero emissions)
- No secondary adverse impacts (greenhouse gases, combustion contaminants, hazardous waste)

# Federal regulations

- Title V- Facility Permit vs. permit unit approach
  - Applies to major sources, definition varies by region
  - Public notification
- How can UV/EB help me comply?
  - Avoiding applicability
    - "De minimus" facility <= 19,184 gallons/year of UV/EB materials with VOC content < 50 grams/liter

# State regulations

- California Air Resources Board
  - UV/EB statewide BACT
  - AB 617– Community Air Monitoring Program
    - Potentially can impact 80,000 businesses in CA
    - **Permitted** equipment subject to requirements
    - Most UV/EB operations are exempt from permit
  - Regulation for Criteria Air Pollutant and Toxic Air Contaminant Emissions Reporting (CTR)
    - Potentially 600 new substances added
    - Rule 219 Exemption pays off
  - Greenhouse Gas Regulations (Energy Efficiency)
    - Afterburners now have to comply with 30 ppm NOx limit

# Sad Examples

- Big Box Retailer
  - $ 8 Million settlement related to VOC of coatings
    - Some limits in SCAQMD Rule 1113 are 50 g/l
  - $ 7 Million Notice of Violation
    - "Offering for sale and selling a consumer paint thinner used for thinning shellac with a VOC content in excess of 25 g/L"
- SCAQMD suing paint company for $50 Million

# End User ?—Can UV/EB help me comply?

- Yes
  - Typical VOC content < 50 grams/liter
  - Less regulatory hassles with UV/EB
  - Reduced SCAQMD recordkeeping for UV/EB
    - Monthly recordkeeping: Materials < 50 grams/liter at all facilities
    - Total exemption from recordkeeping: Materials <50 grams/liter at facilities <4 TPY

# SCAQMD Findings

- **"UV coating on wood substrate is a viable option to regulatory compliance and coating performance for a wide variety of products."**
- "Supercompliant materials (eg., UV and EB cured materials) typically dry/cure more quickly, using less energy than conventional drying methods which typically use natural gas as a fuel source" [RadTech Report Article became part of Rule 1130-- Graphic Arts]

# Less regulatory hassles with UV/EB

- Reduced SCAQMD recordkeeping for UV/EB
  - Monthly recordkeeping: Materials < 50 grams/liter at all facilities
  - Total exemption from recordkeeping: Materials <50 grams/liter at facilities <4 TPY
- Permit exemption - Rule 219; registration for some equipment under R222 (one-page form)
  - In CA you need a permit to smoke a sausage

# Good News for UV/EB

- California Senate Resolution
  - Recognizes UV/EB technology as pollution prevention processes
  - Commends RadTech for its "outstanding commitment to improving the environment and economy through its programs…"
- SCAQMD Sponsorship for Radlaunch

# Good News for UV/EB

- UV/EB is Best Available Control Technology Statewide
  - Graphic Arts Printing and Coating Operation: Screen Printing & Drying
  - Graphic Arts Printing and Coating Operation: Flexographic Printing
  - Letterpress printing (printing labels)
  - Flow Coater, Dip Tank & Roller Coater (Wood coatings)

# More Good News

- SCAQMD proposes NEW listings for Minor Source BACT
  - Glass screen printing, flat glass
  - Spray Booth, wood cabinet with automated spray nozzles
- Important because Minor Source BACT requires cost effectiveness analysis.
- RadTech Test Method recognized for enforcement! - NEW!
  - Rule 1107– Metal Coatings

# RadTech Members in Action

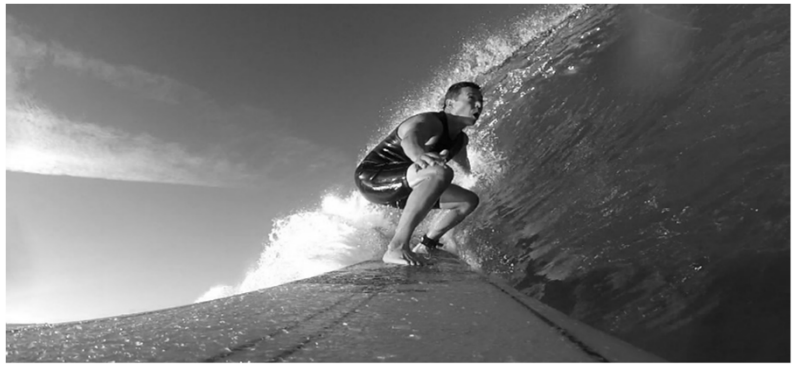
# SCAQMD Presence

- RadTech is AQMD Advisor
  - Air Quality Management Plan Committee
  - Local Government/Small Business Committee
  - Permit Streamlining Task Force
  - Test Method Working Group

# Impact of Regs. on Enduser

- Rulemakings and regs can shape business decisions.
- Spark enduser interest in UV/EB
- Provide the perspective of an "impartial" third party  rather than that of a "vendor"
- SCAQMD Board member

On  UV coated surfboard



# Cost savings to Customers

- Less permit costs
  - Permit processing fee for coating/drying
    = $4,501.77
  - Annual Operating Fee
    = $1,456.96

# Savings from conversion

## 20 gal/day; air quality fees only

- Savings in permitting fees = $ 4,502
- Savings in operating fees (annual) = $ 1,457
- Savings in emission fees (annual) = $ 3,738
- Savings in ERCs (one time fee) = $ 600,000
- Savings = $609,697
- Does not include additional fees (Title V ; public notice and other)

# Future Trends

- Lower VOC limits/More reporting AB617
- Greenhouse gases
- Toxic Air Contaminants
- "Indirect Sources"
- Incentives– SCAQMD RFP specified UV/EB/LED
- Regulations for Control Devices (afterburners)
- Parachlorobenzotrifloride (PCBTF)
  - Most widely used solvent in coatings/adhesives industry
  - Currently an "exempt" solvent, may be considered a VOC

# Conclusion

- UV/EB can offer end users:
  - Less regulatory burdens and help industry stay in compliance and in business.
  - Increased production and VOC reduction can go hand in hand
  - Process advantages, controls simply destroy VOC's
  - No secondary pollutants (NOx, SOx, CO, greenhouse gases) generated with UV/EB
  - Conversion may equal $$$$ SAVINGS
  - UV/EB community IS part of WE the People
- Public policy & elected officials, get to know them

# THANK YOU

- Contact information
- 909-240-0866
- rita@radtech.org; RML93@verizon.net
- www.radtech.org
- Regulatory resources
  - www.aqmd.gov
  - www.arb.ca.gov
  - www.epa.gov