

A close-up photograph of a hand holding a black, textured object, possibly a tool or a piece of equipment, against a red background. The object has a cylindrical shape with a textured surface and a black handle. The hand is visible, holding the object from the right side. The background is a solid red color.

PAR 1113 WORKING GROUP MEETING

June 5, 2014

ACRONYMS USED IN PRESENTATION

AQMP	Air Quality Management Plan
CWF	Clear Wood Finish
g/L	Grams per Liter
IM	Industrial Maintenance
PSU	Primer, Sealer, Undercoater
QDE	Quick Dry Enamel
RPC	Rust Preventative Coating
SCE	Small Container Exemption
tpd	Tons per Day
WPCMS	Waterproofing Concrete/Masonry Sealer

OVERVIEW

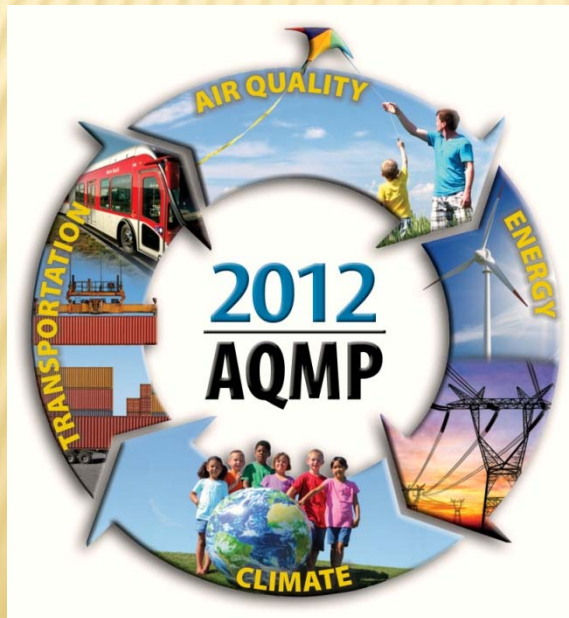
- ✘ 2012 AQMP
 - + CTS-01
- ✘ Sales and Emissions Overview (2008 – 2012)
 - + Flats/Non-Flats/PSU
 - + Small Container Exemption
- ✘ Rule Clarification
 - + Glaze
 - + Reactive Penetrating Sealers
 - + Other



2012 AIR QUALITY MANAGEMENT PLAN (AQMP)

Control Measure for
Architectural Coatings
(CTS-01)

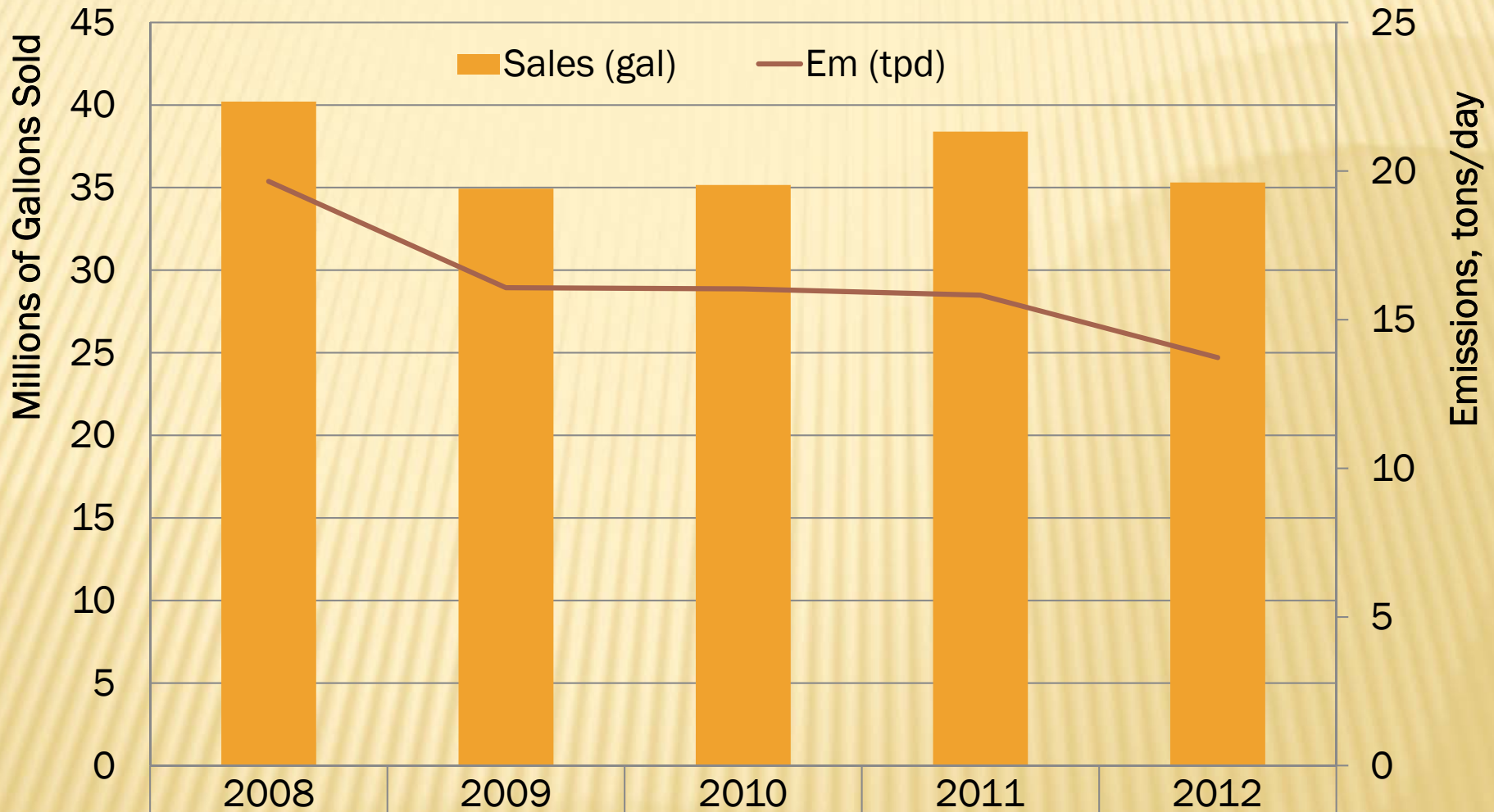
- ✘ Lower VOC limits for high-Volume Categories (flat, non-flat, and PSU)
- ✘ Eliminate or limit the Small Container Exemption (SCE)
- ✘ Explore Transfer Efficiency Requirements



SALES AND EMISSIONS TRENDS

Summary of the Rule 314 data collected from 2008 – 2012.

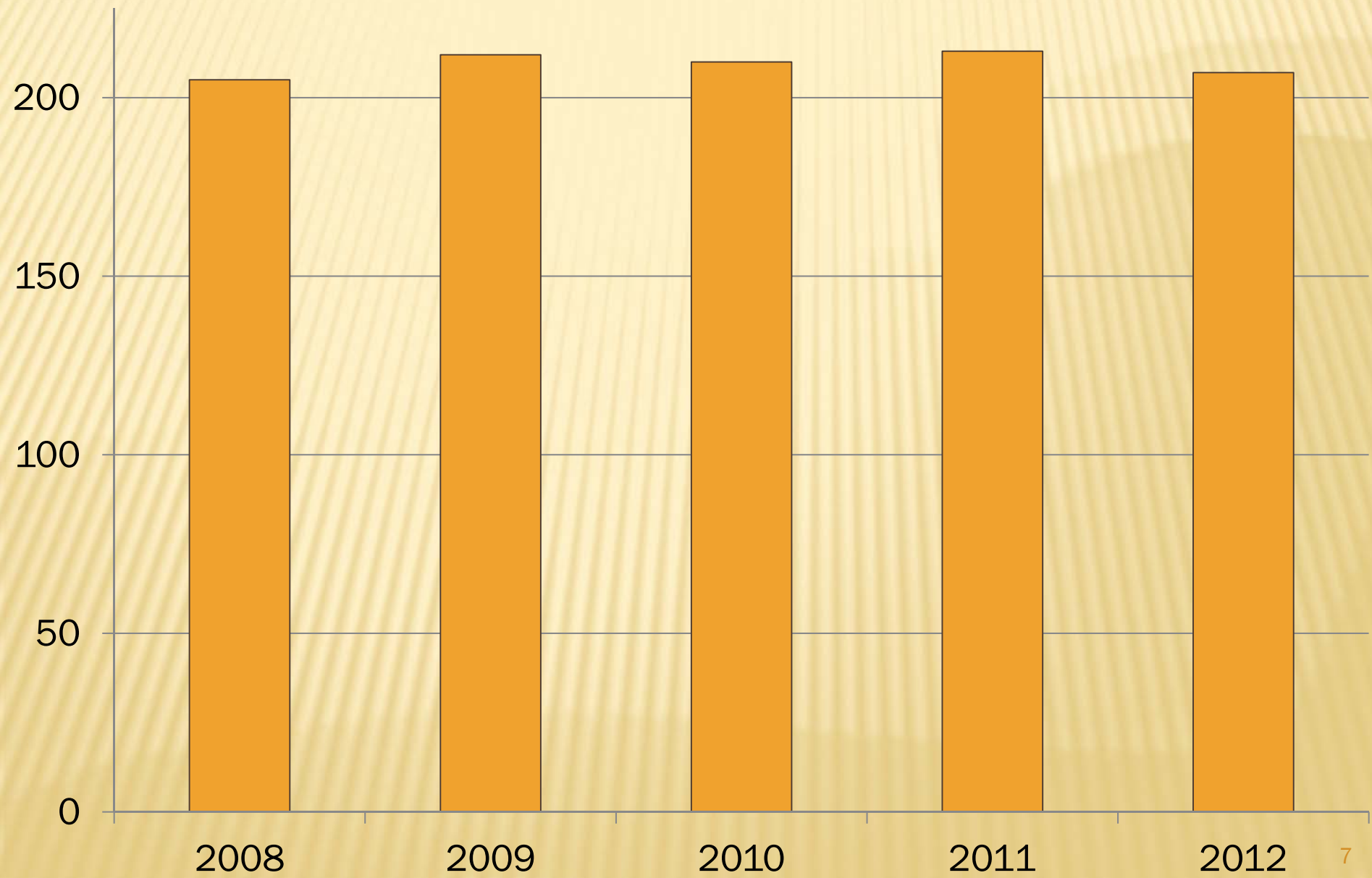
OVERALL TOTAL SALES 2008 - 2012 *



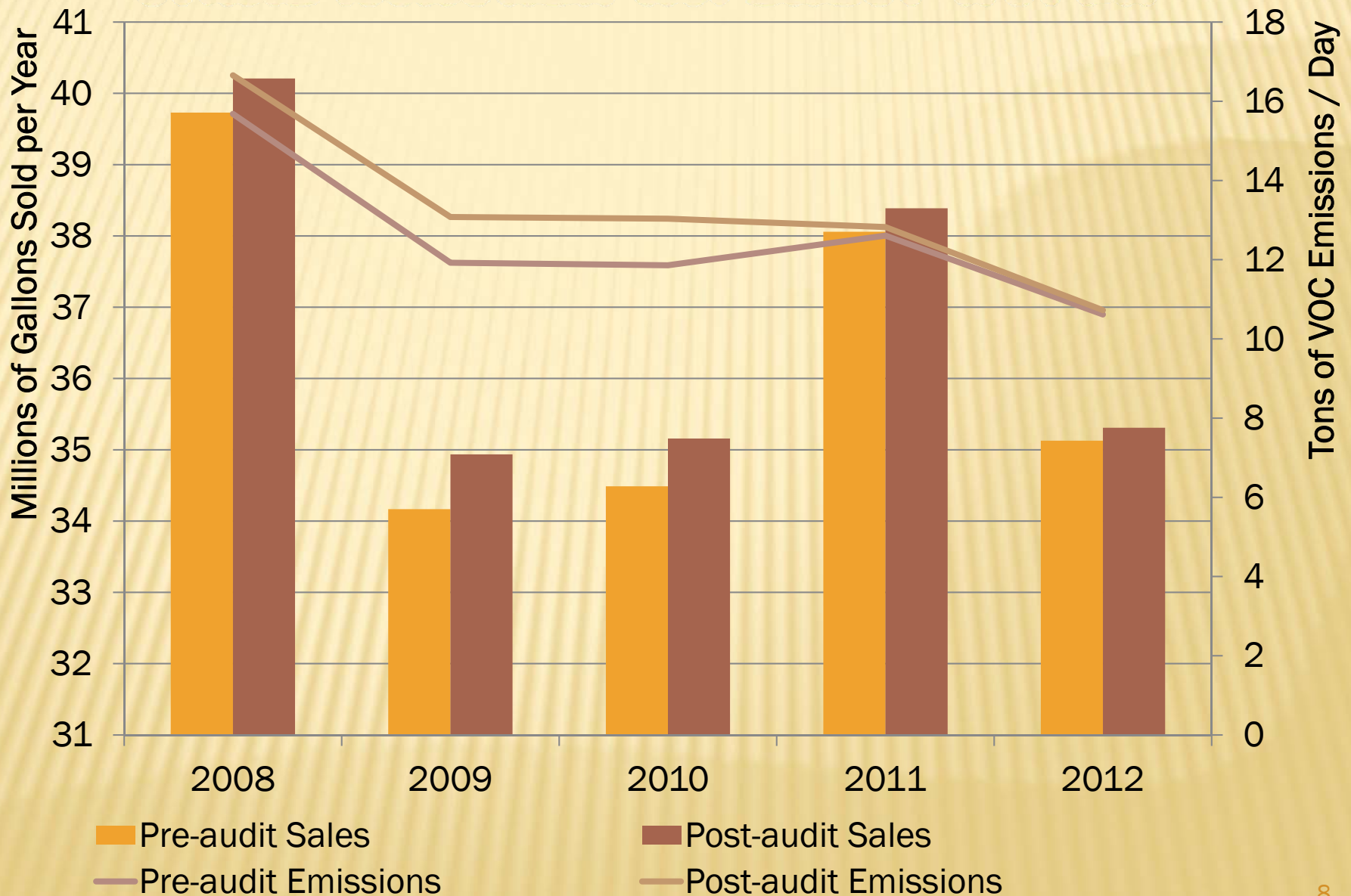
Sales (gal)	40,208,440	34,936,138	35,158,350	38,388,149	35,309,199
Em (tpd)	19.7	16.1	16.0	15.8	13.7

*314 Data + estimated colorant emissions

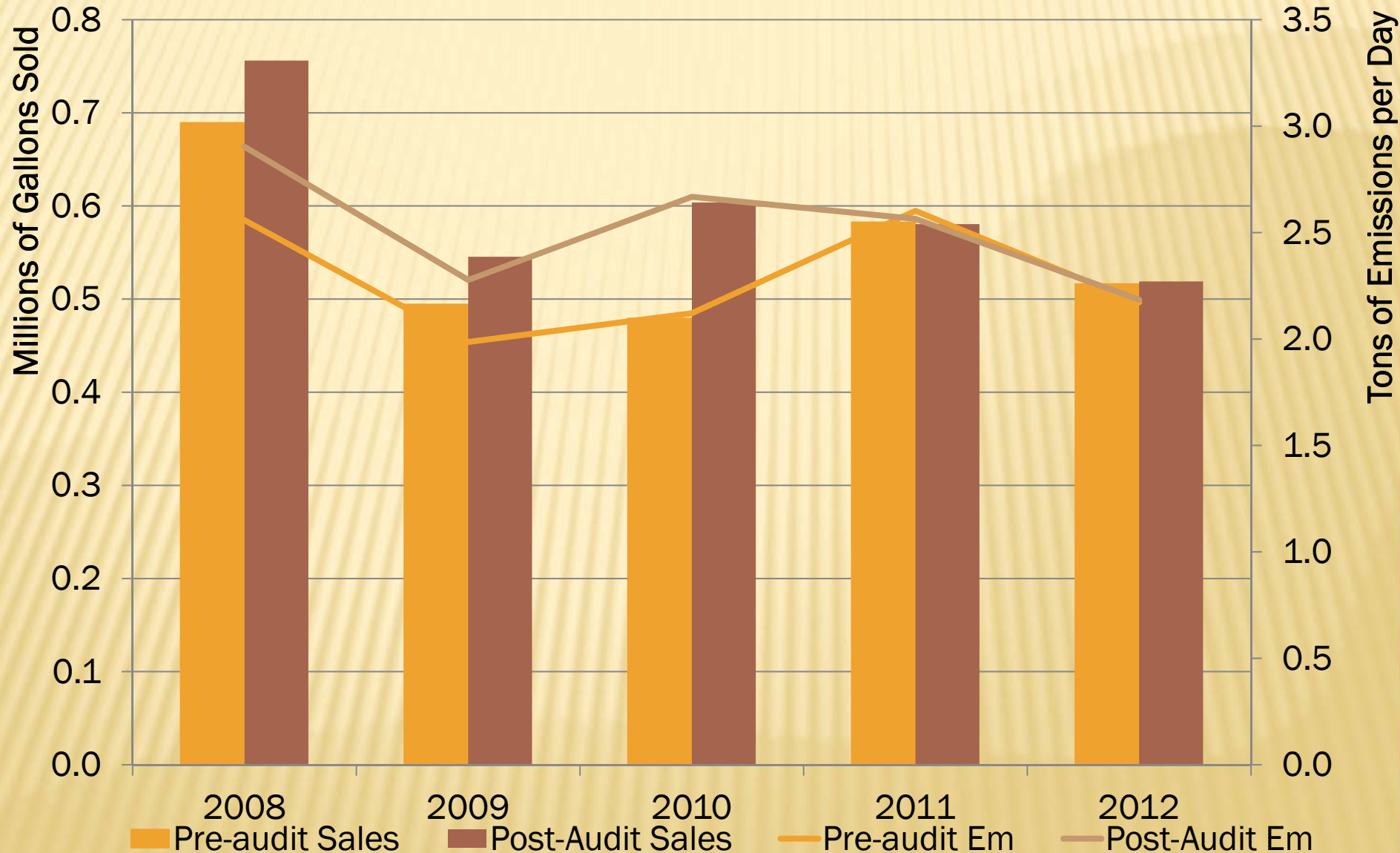
NUMBER OF MANUFACTURERS



AUDIT IMPACTS ON TOTAL SALES



AUDIT IMPACTS ON SMALL CONTAINERS



TOP 10 CATEGORIES (ALL CONTAINER SIZES*)

Millions of Gallons Sold

0 10

Non-Flat

Flat

PSU

Roof

WPCMS

Traffic

Waterproofing Sealers

CWF

IM

Concrete Curing-
Roadways & Bridges

Emissions: tons/day

- 0.5 1.0 1.5 2.0 2.5

Non-Flat

Flat

PSU

RPC

CWF

Stains, Interior

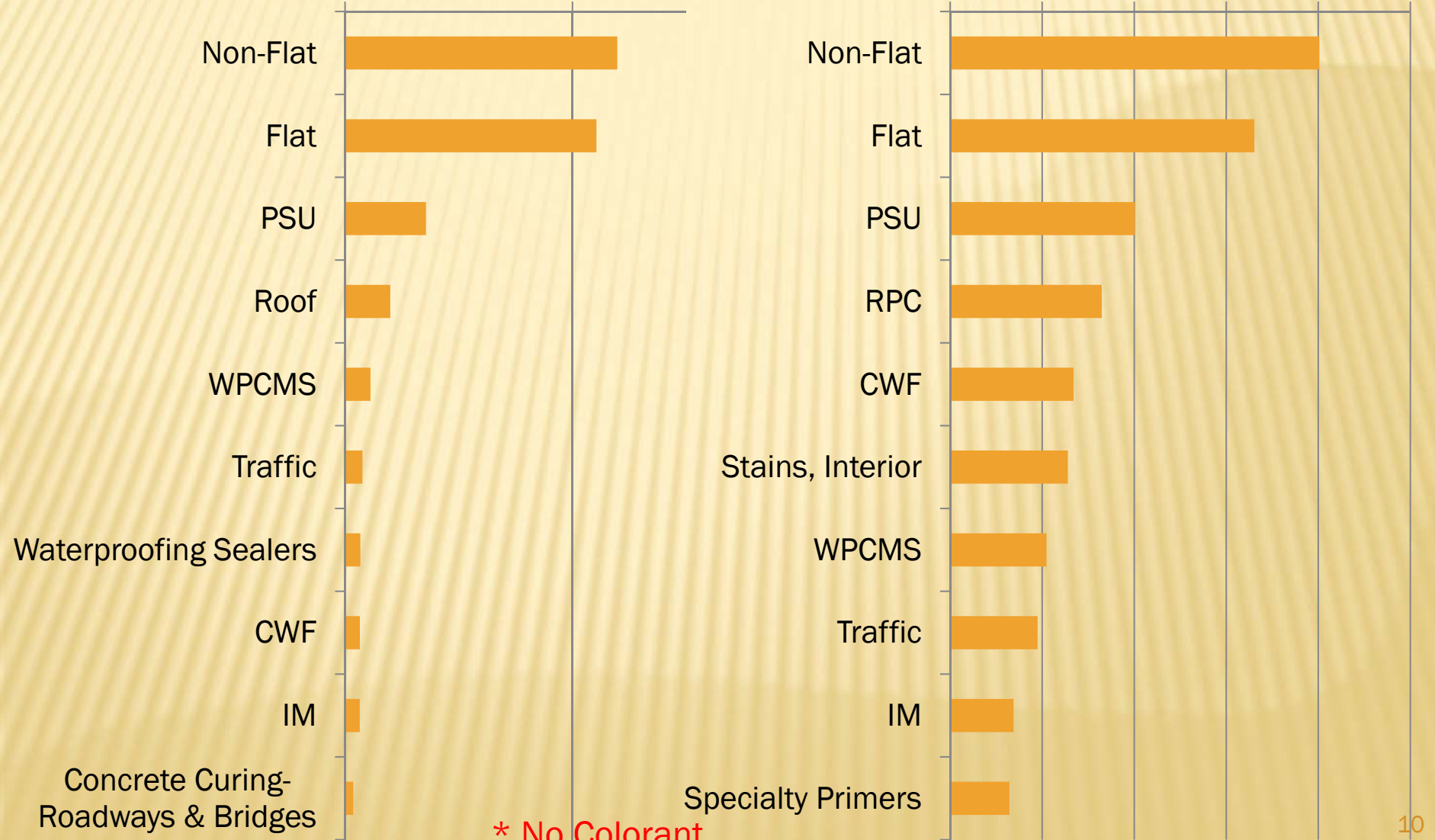
WPCMS

Traffic

IM

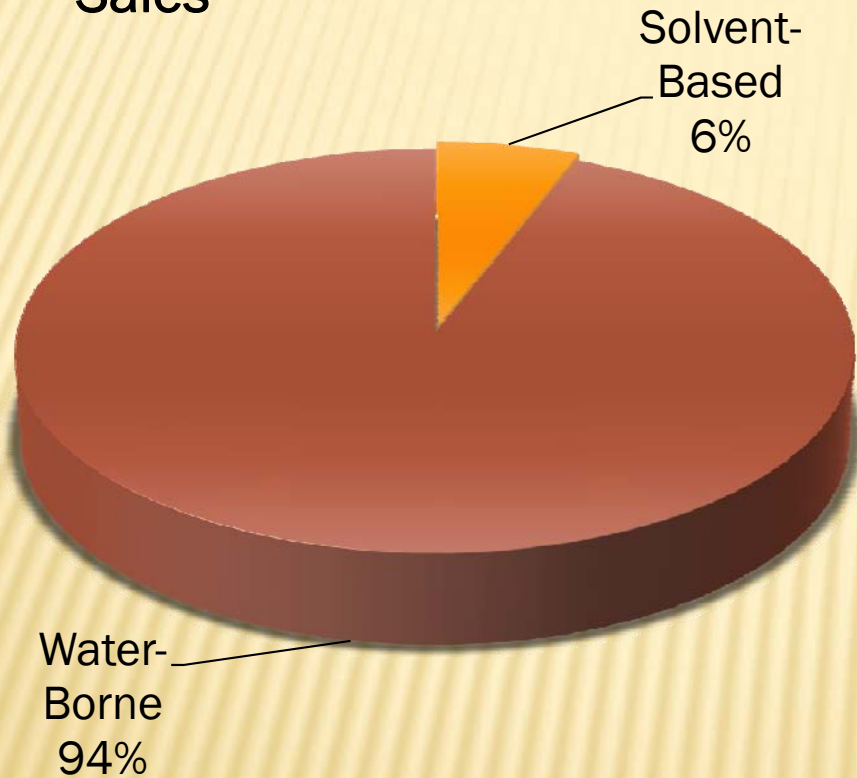
Specialty Primers

* No Colorant

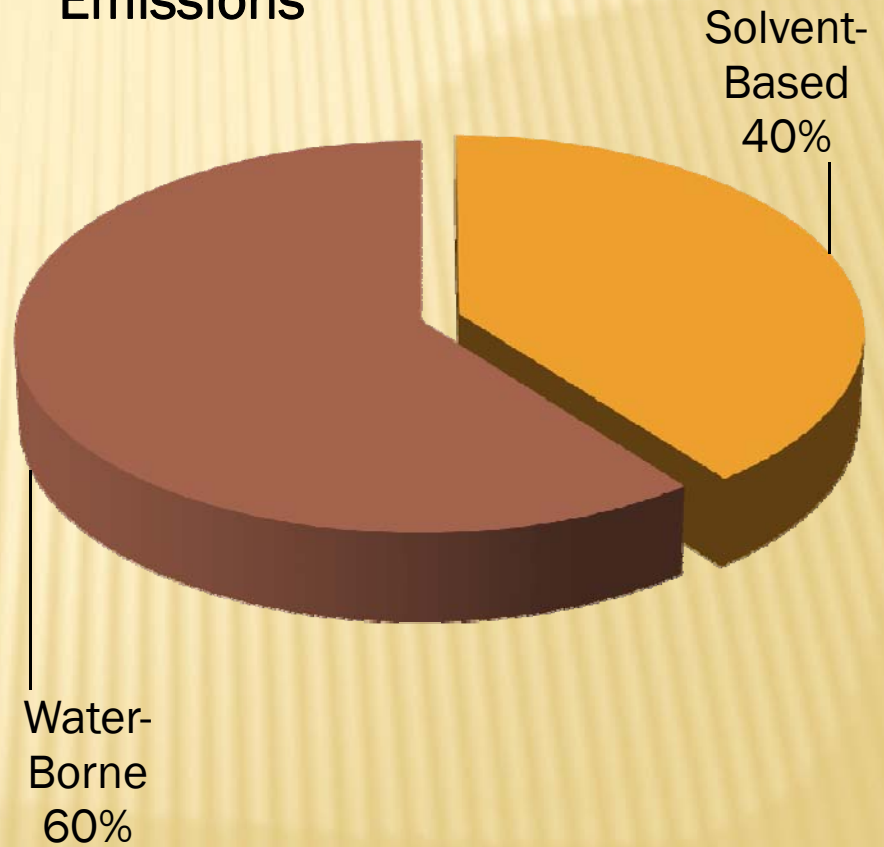


WATERBORNE VERSUS SOLVENT-BASED

Sales



Emissions



TOP 10 CATEGORIES - WATERBORNE

Millions of Gallons Sold

Emissions: tons/day

0 10

- 0.5 1.0 1.5 2.0

Non-Flat

Flat

PSU

Roof

WPCMS

Traffic

Waterproofing Sealers

Concrete Curing-
Roadways & Bridges

Floor

CWF

Non-Flat

Flat

PSU

Traffic

Roof

Concrete Curing-
Roadways & Bridges

CWF

WPCMS

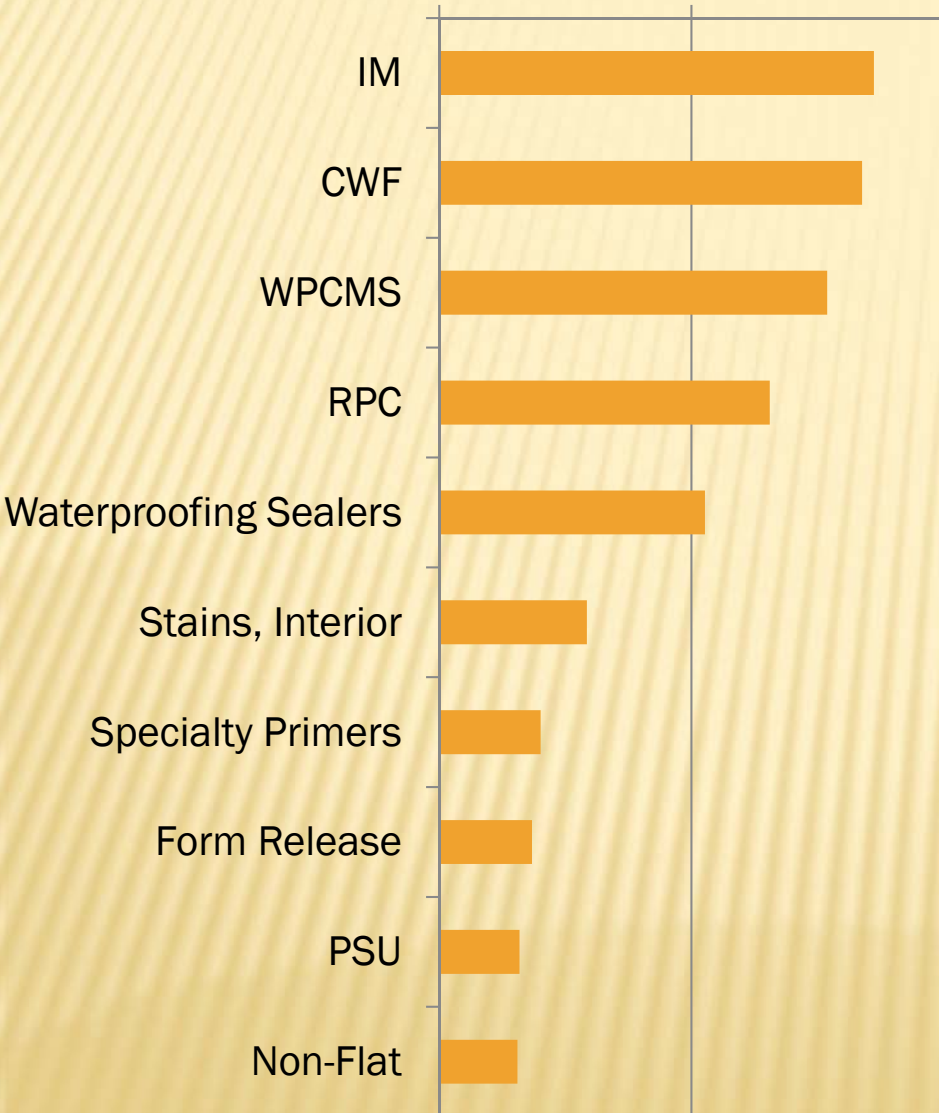
Recycled

IM

TOP 10 CATEGORIES – SOLVENT-BASED

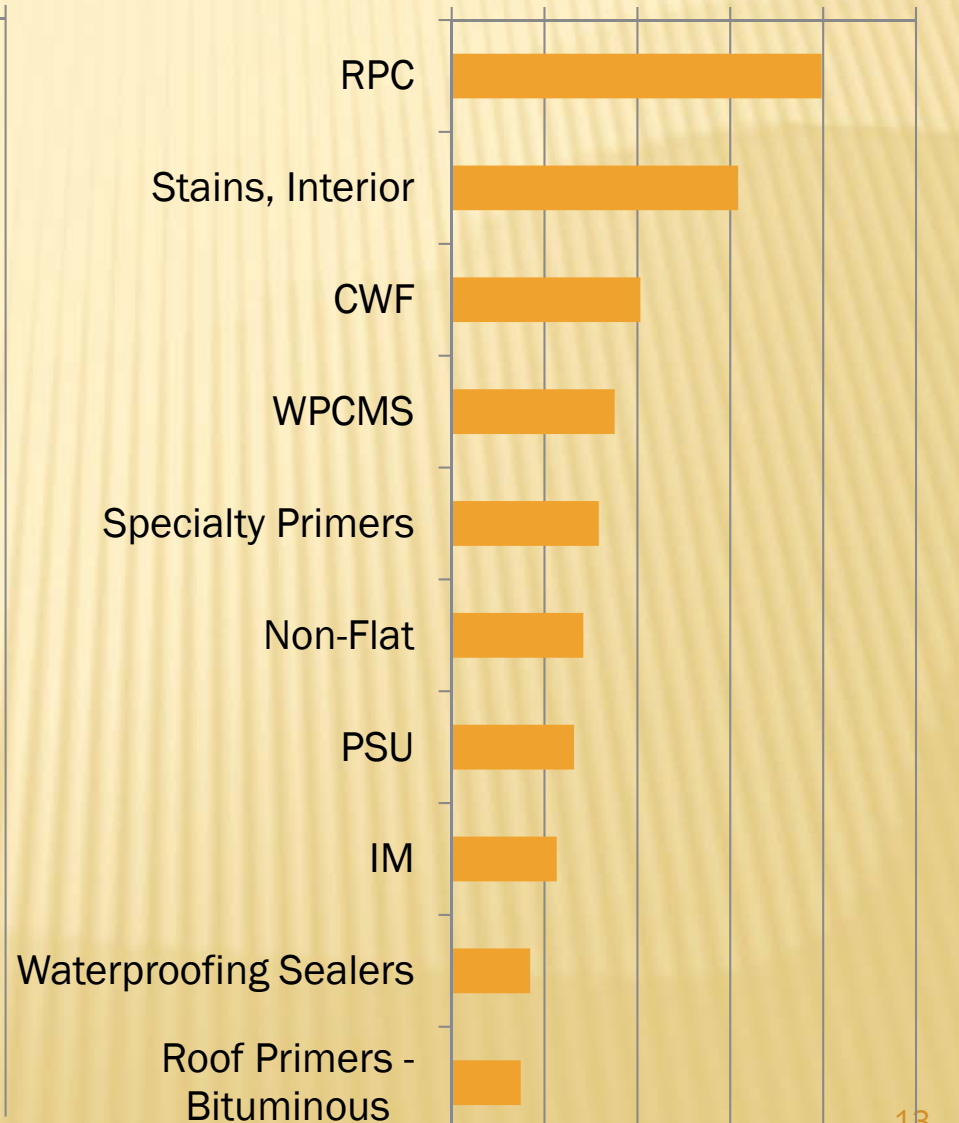
Thousands of Gallons Sold

0 200 400



Emissions: tons/day

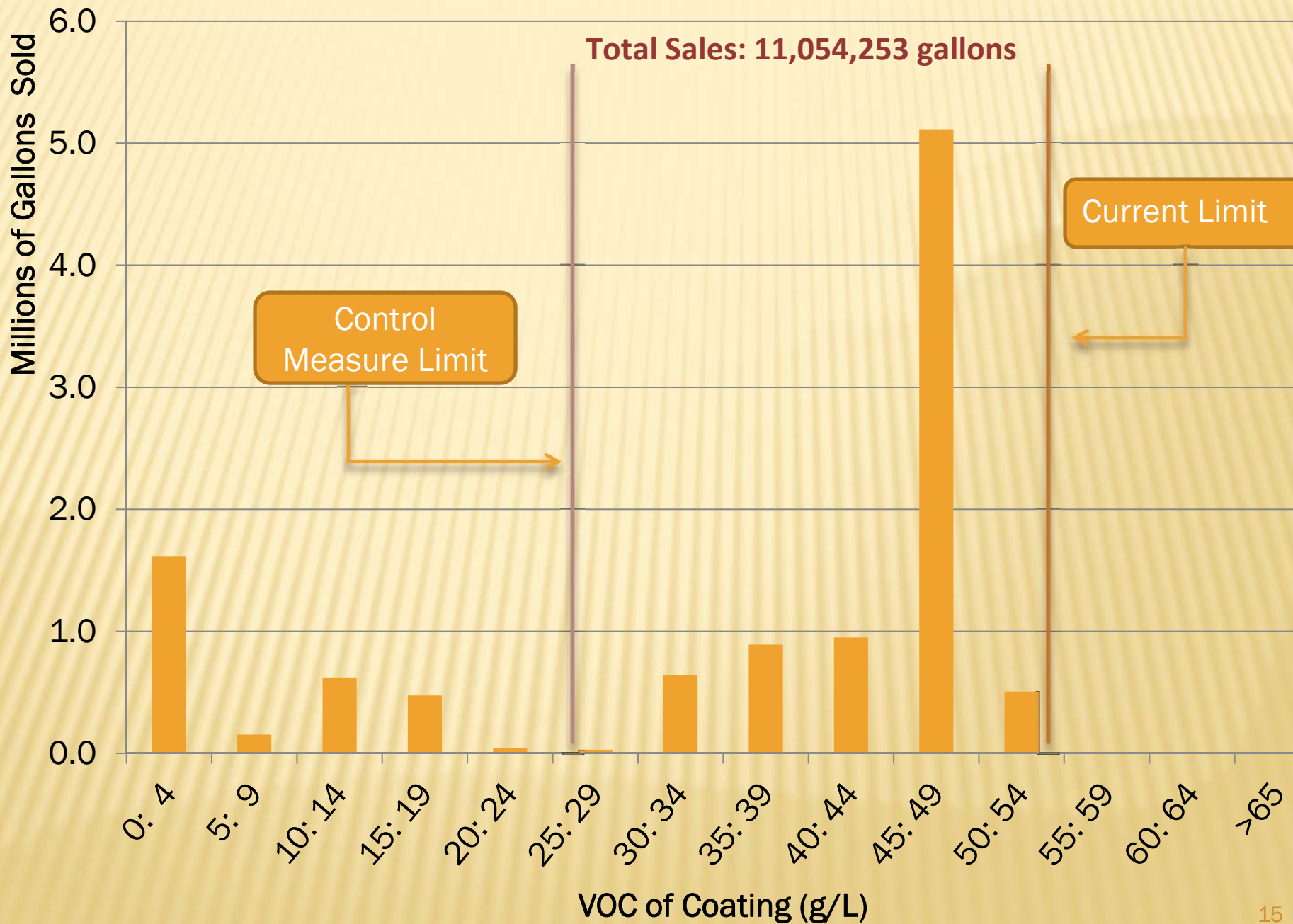
0 0.2 0.4 0.6 0.8 1.0



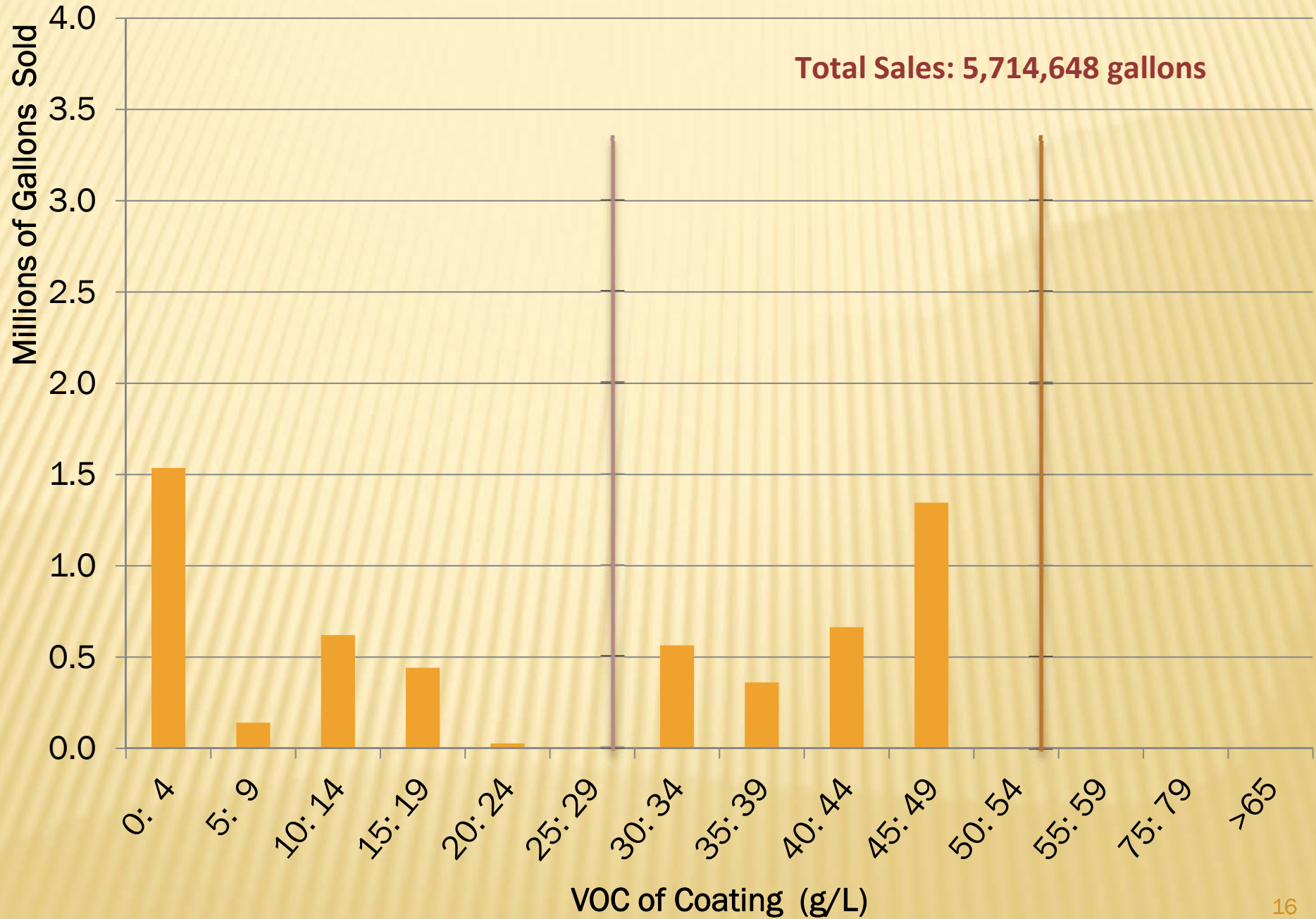
Flat, non-Flats, & PSU Stats: 2012 Sales

AQMP CTS-01

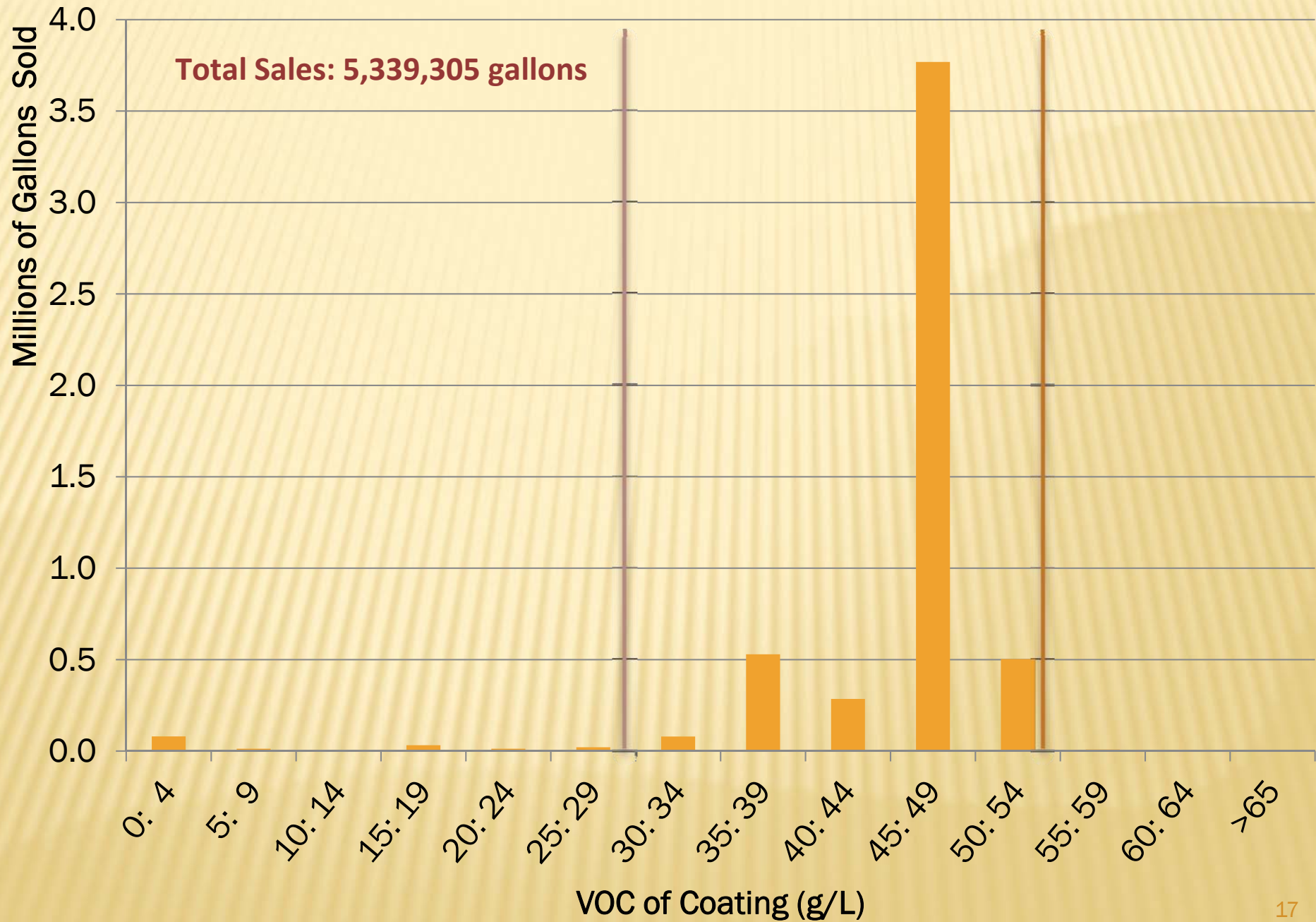
Flats (All Products)



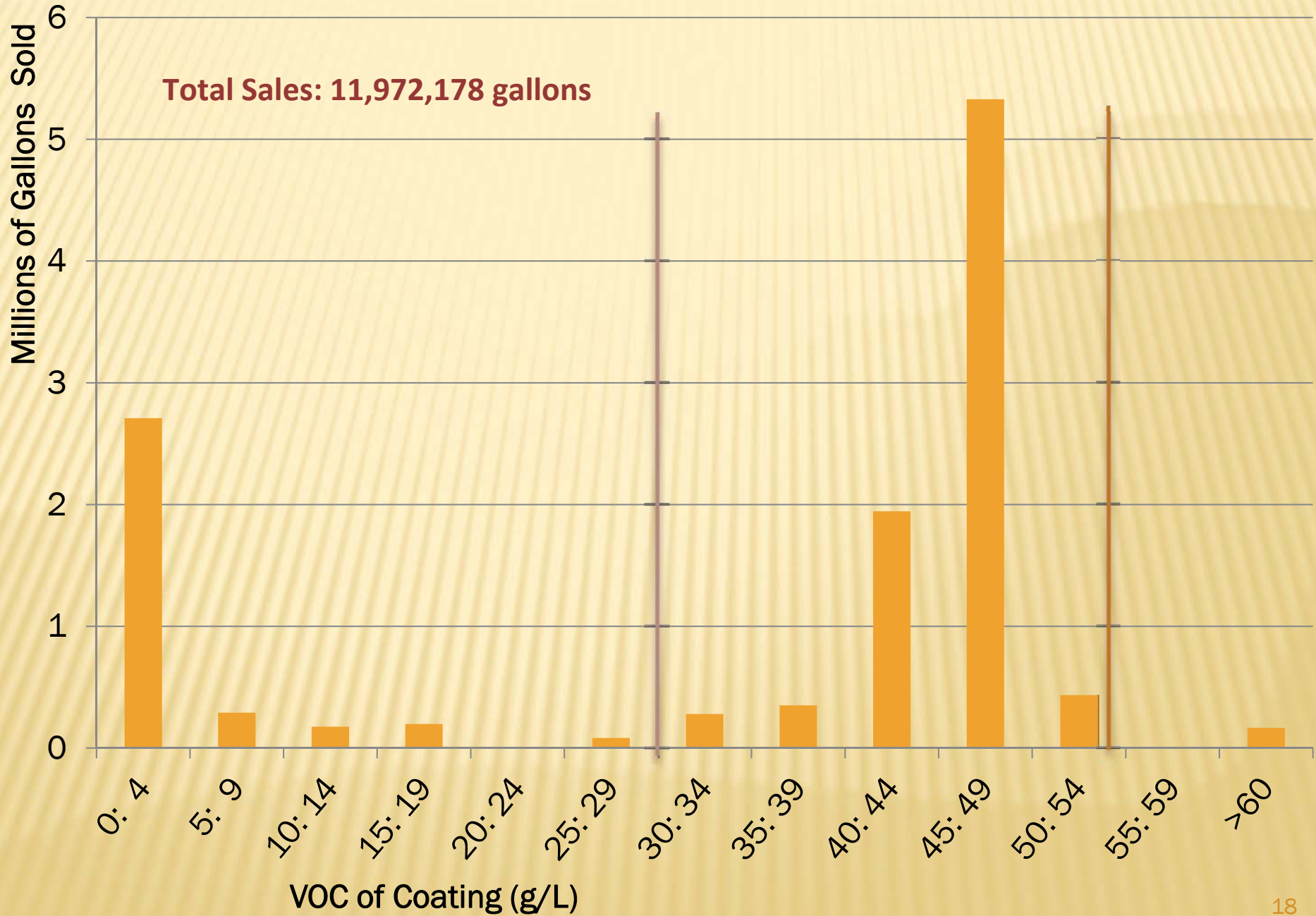
Interior Flats



Exterior and Dual-Use Flats

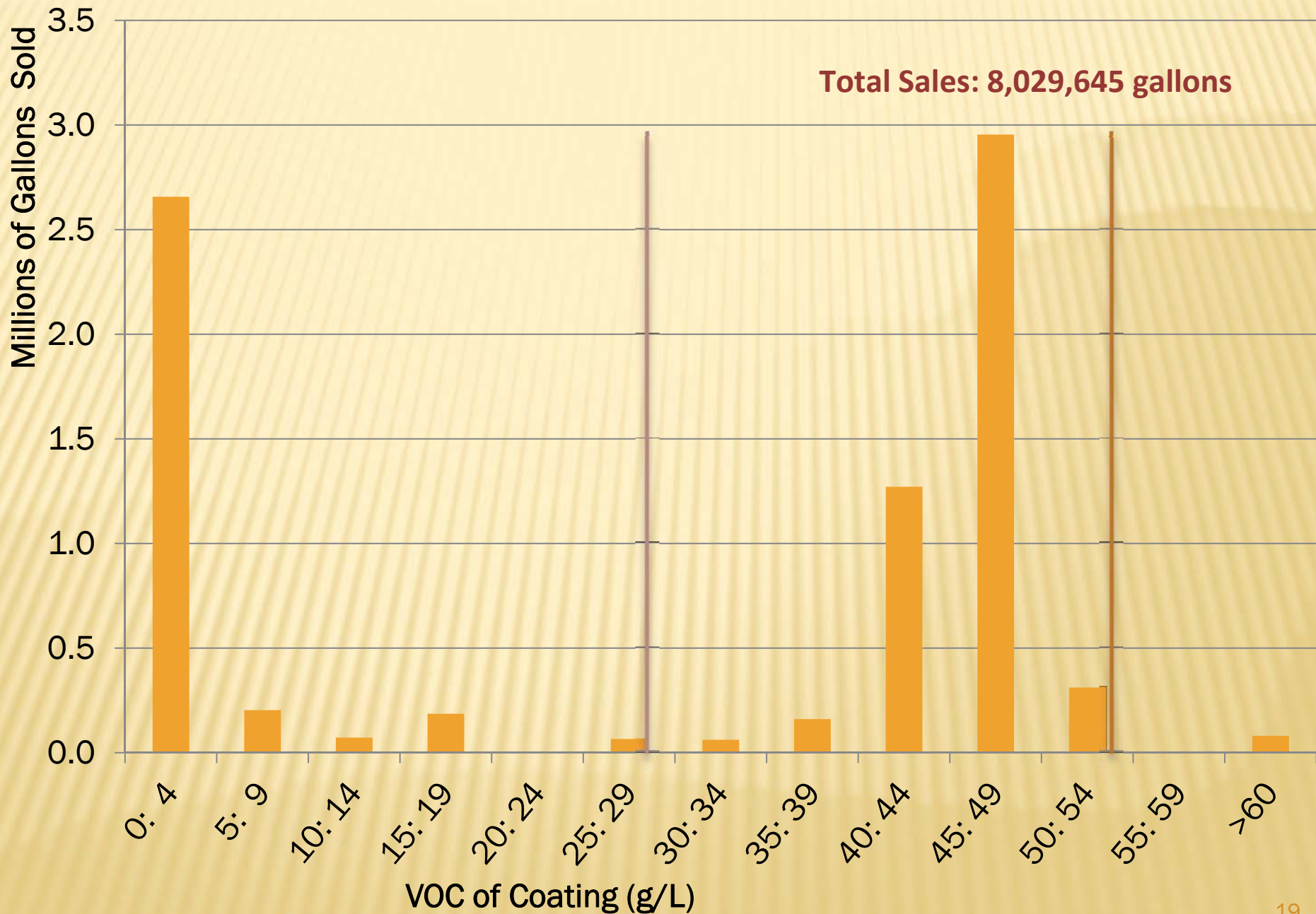


non-Flats (All Products*)



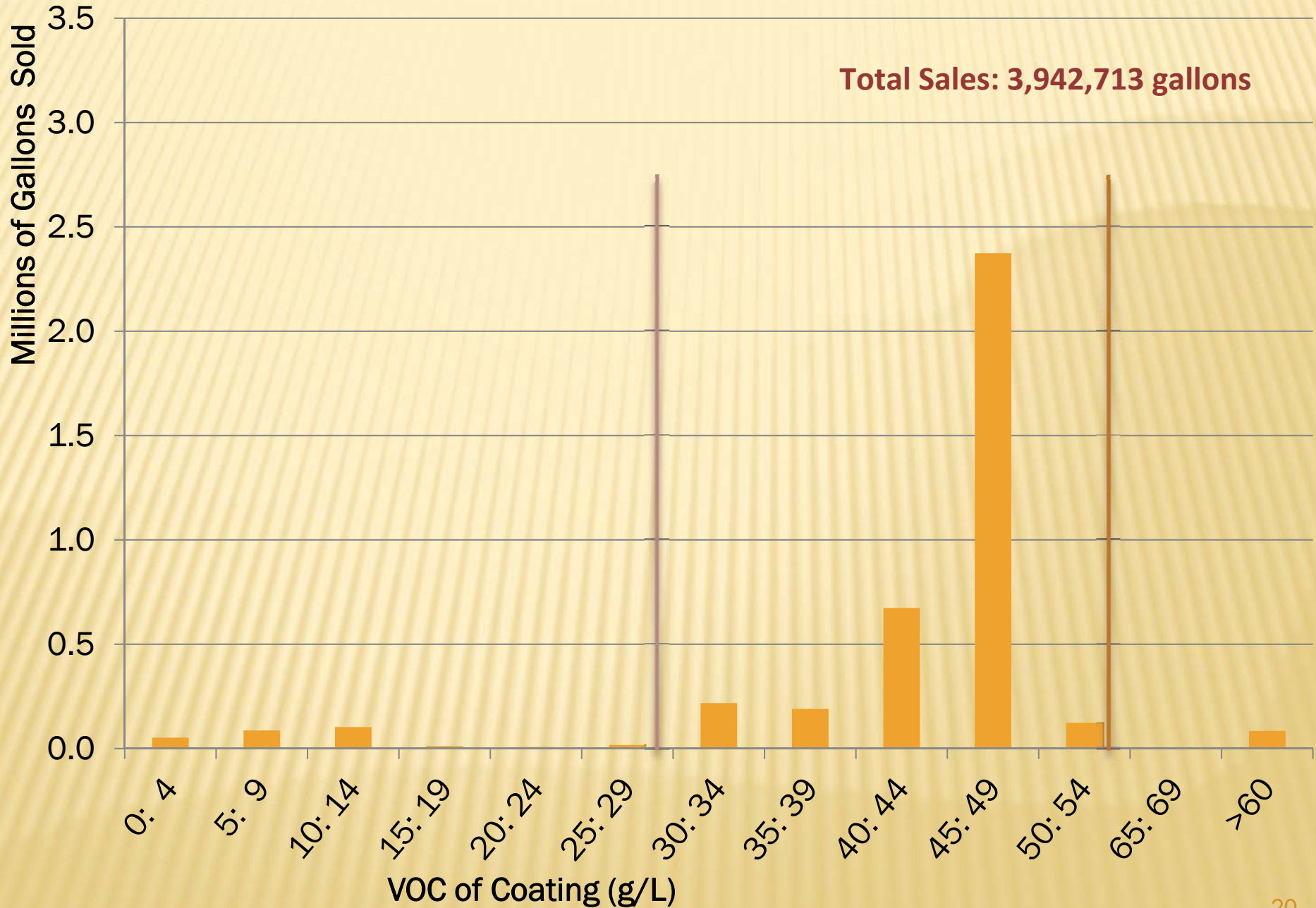
* Includes low, medium, high gloss & quick dry enamels

Interior non-Flats*



* Includes low, medium, high gloss & quick dry enamels

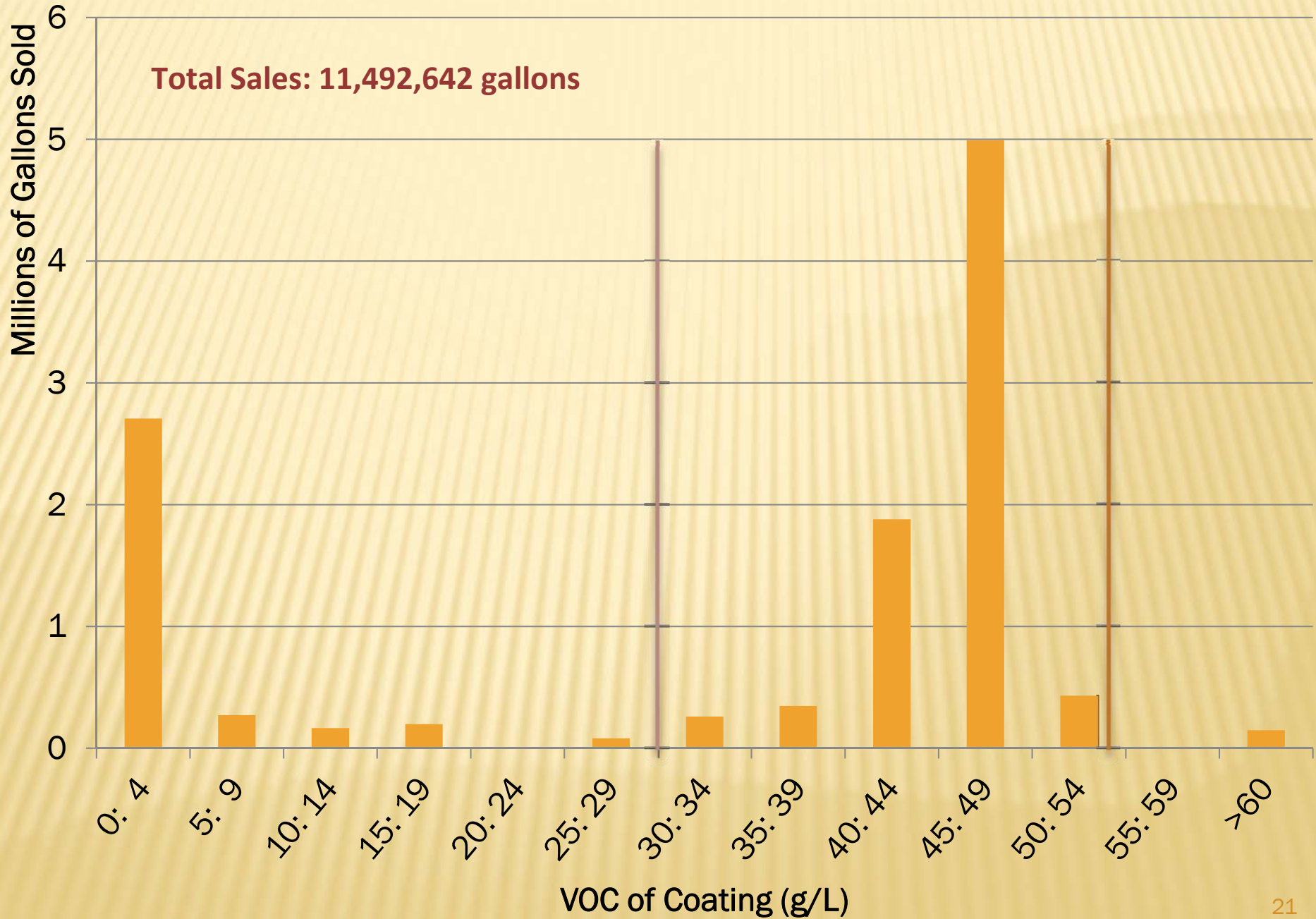
Exterior and Dual-Use non-Flats*



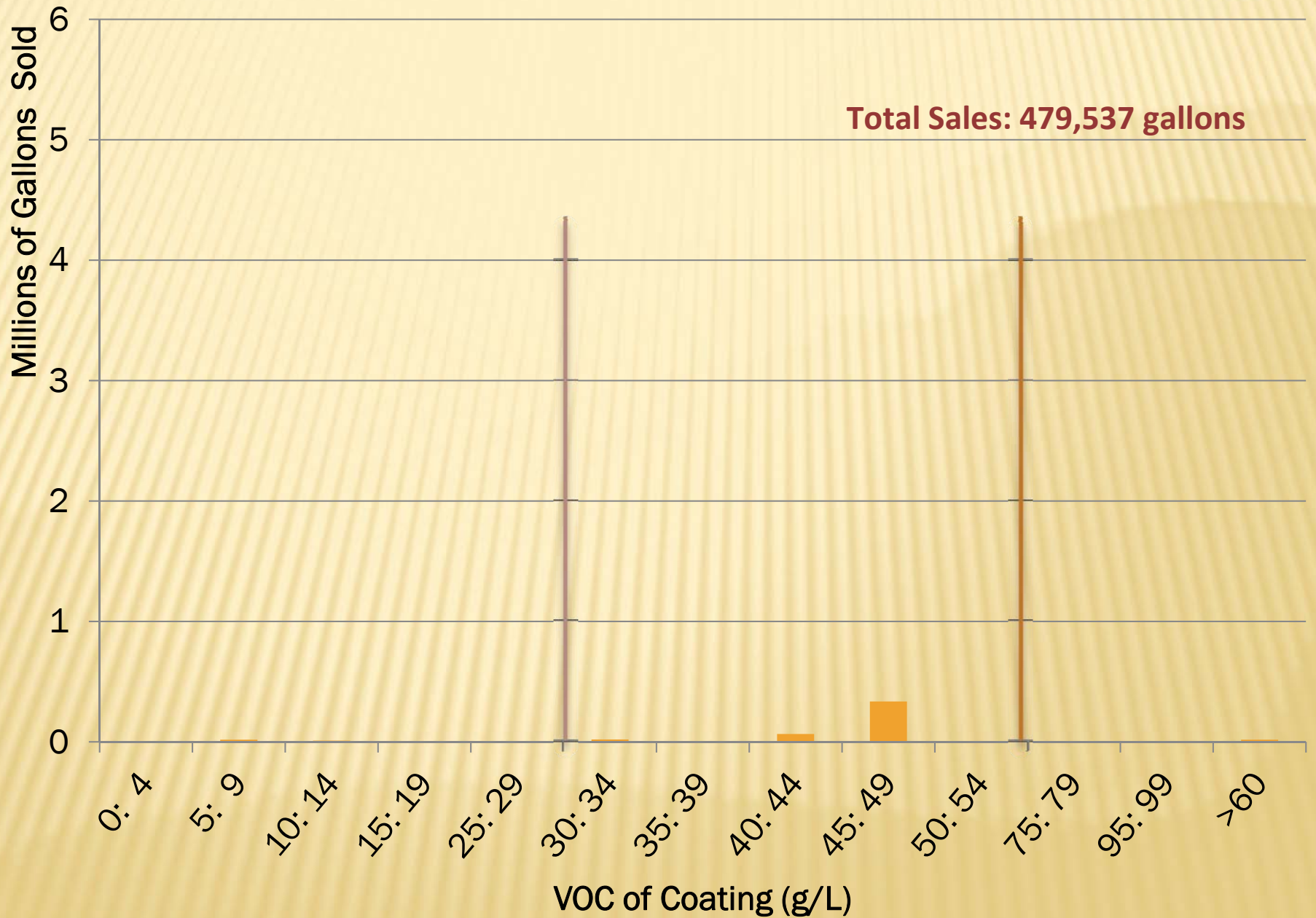
* Includes low, medium, high gloss & quick dry enamels

Low & Medium Gloss non-Flats

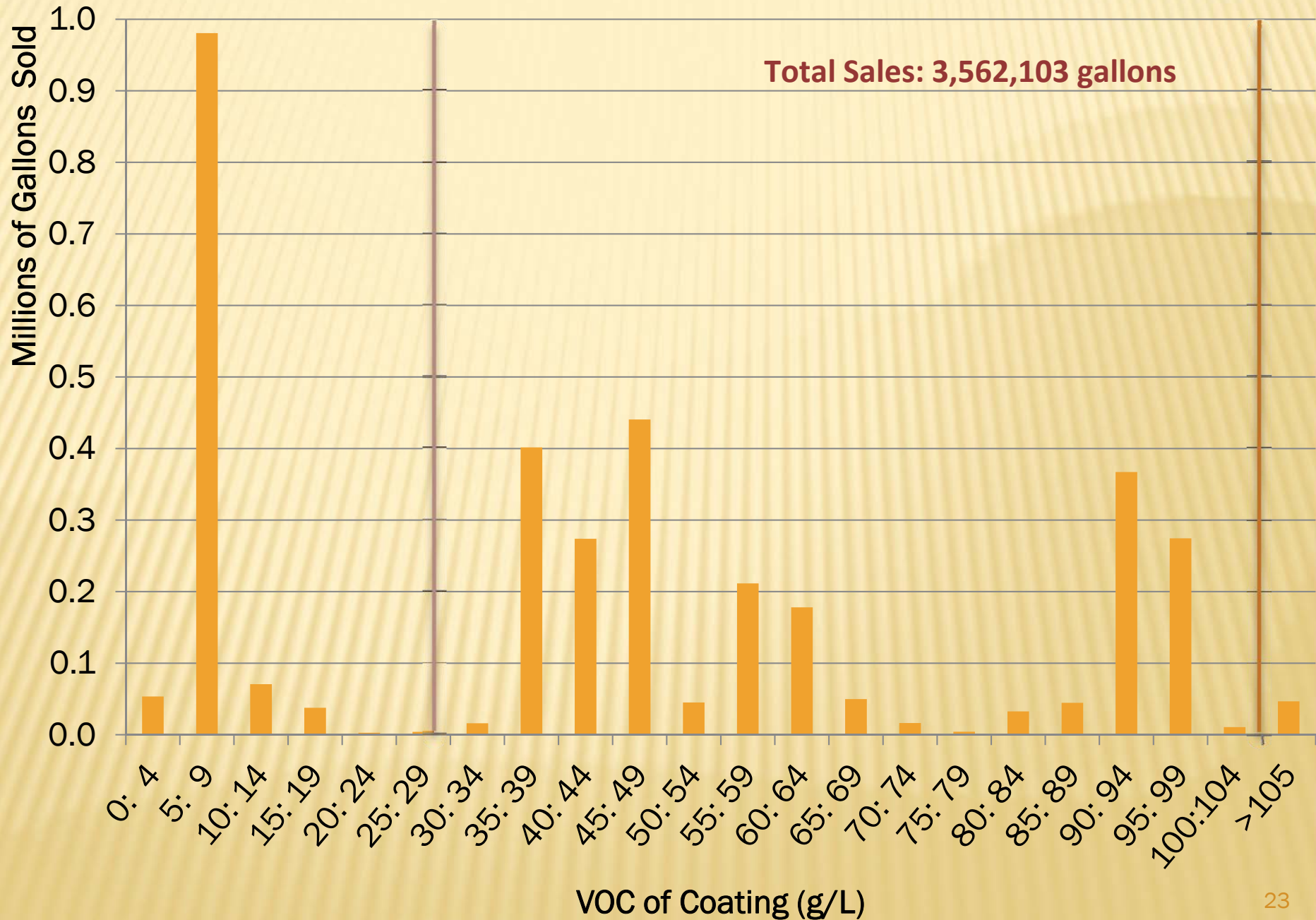
Total Sales: 11,492,642 gallons



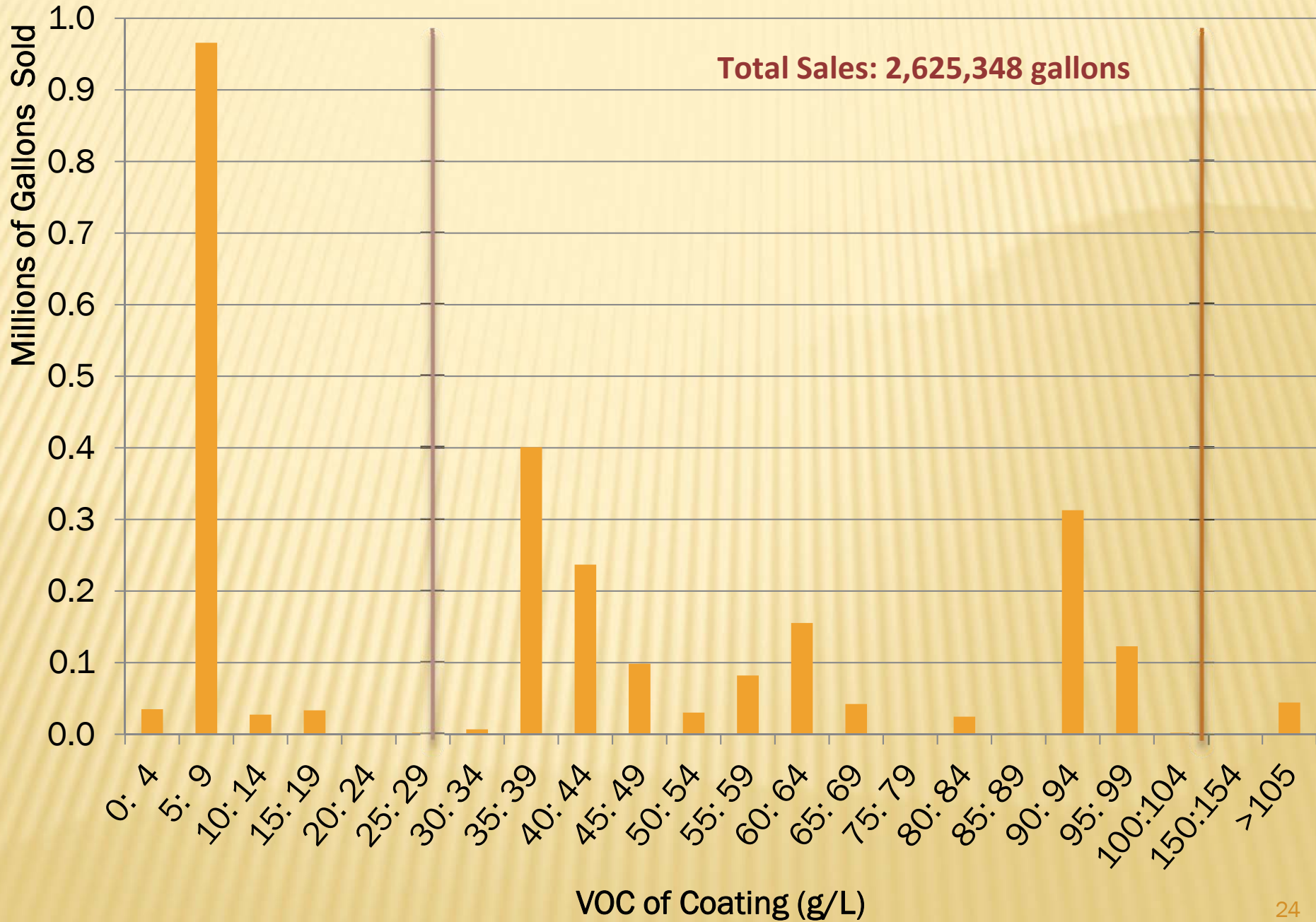
High Gloss non-Flats & QDE



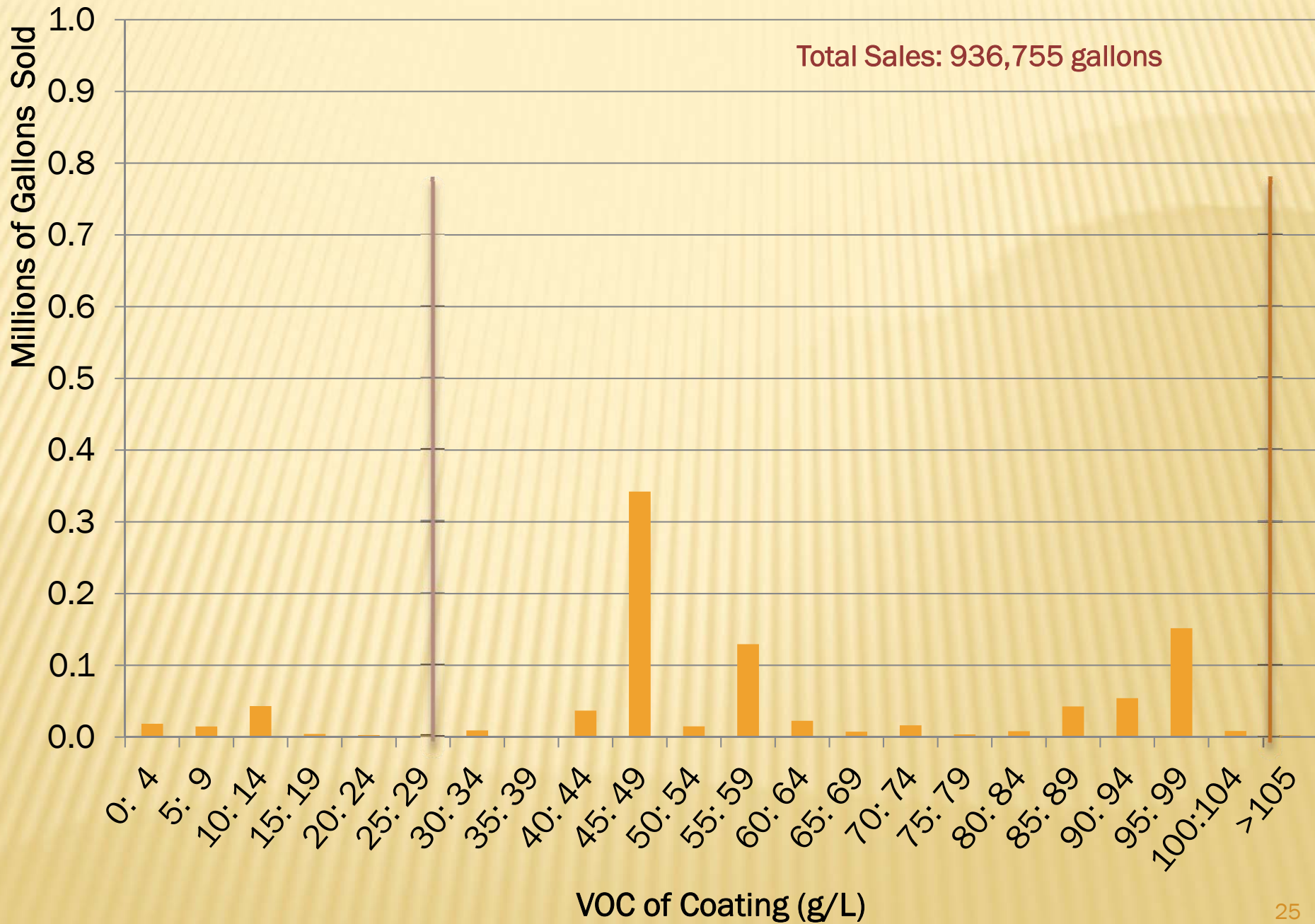
PSUs & Quick-Dry PSUs (All Products)



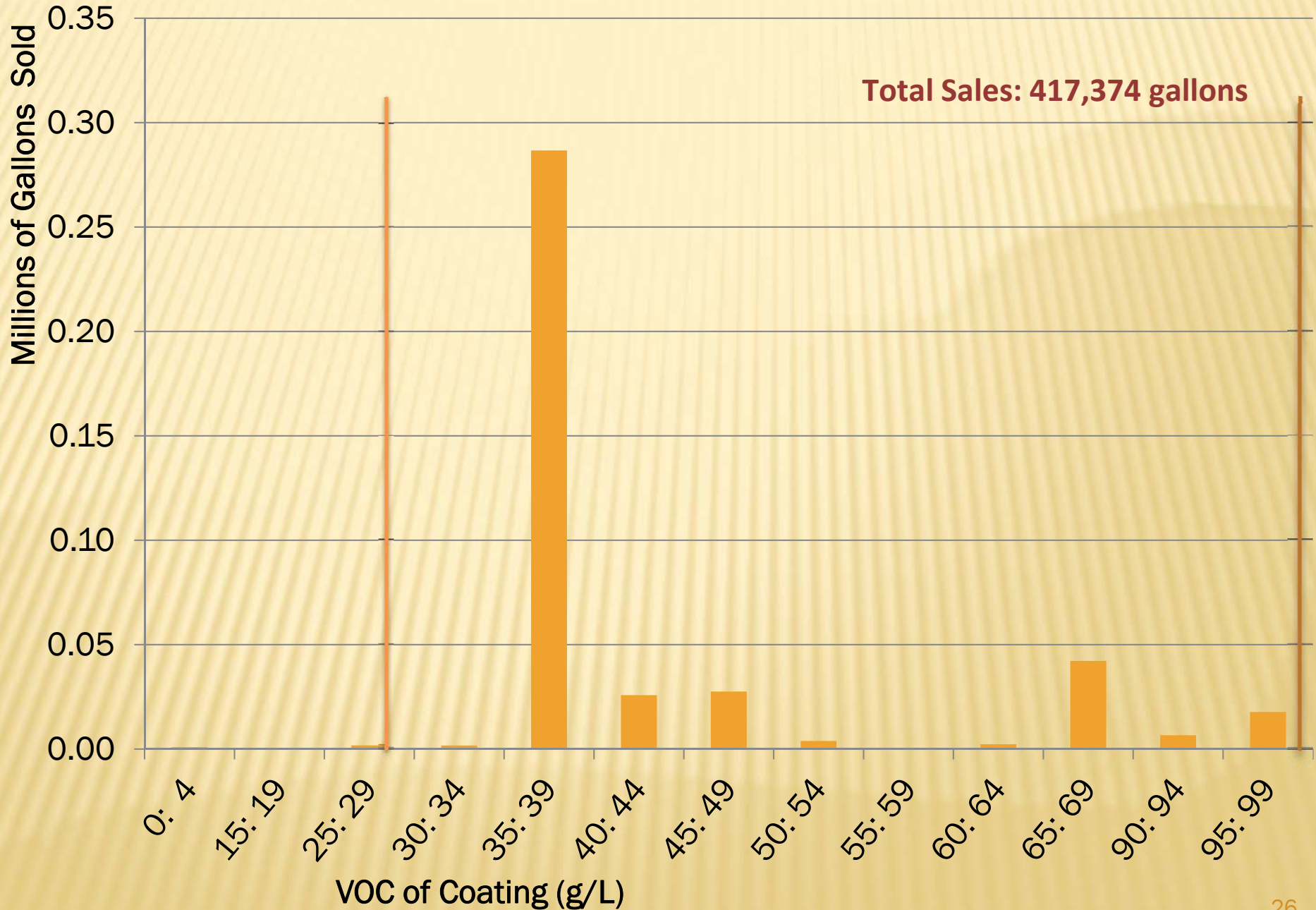
Interior PSUs



Exterior and Dual-Use PSUs



Drywall & PVA PSUs*



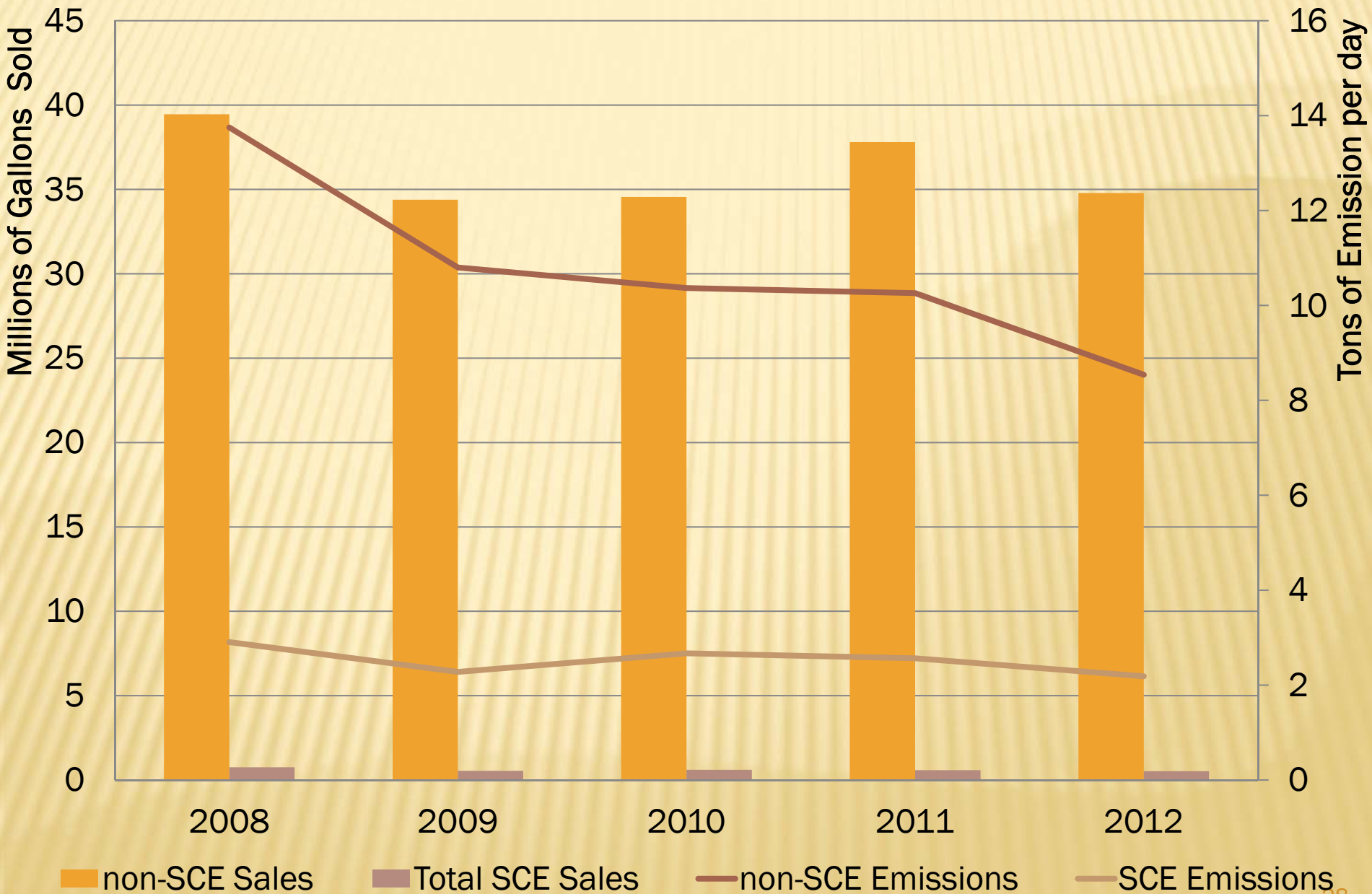
*Only 35 Products could be positively identified in the 26

SMALL CONTAINER EXEMPTION (SCE)

Coating sold in one-liter or smaller containers above the VOC limit

Sales and Emission Trends

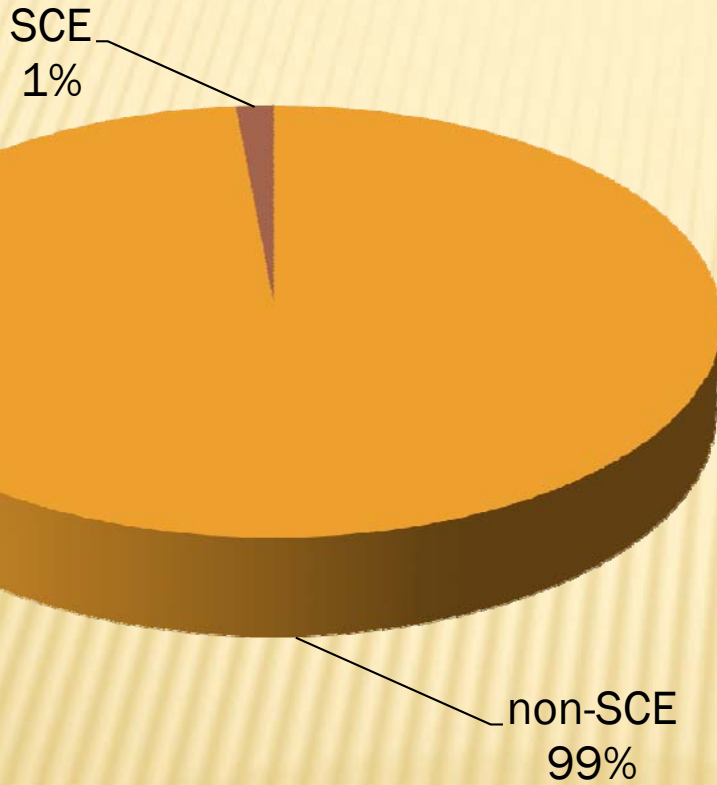
Total non-SCE Sales versus SCE Sales*



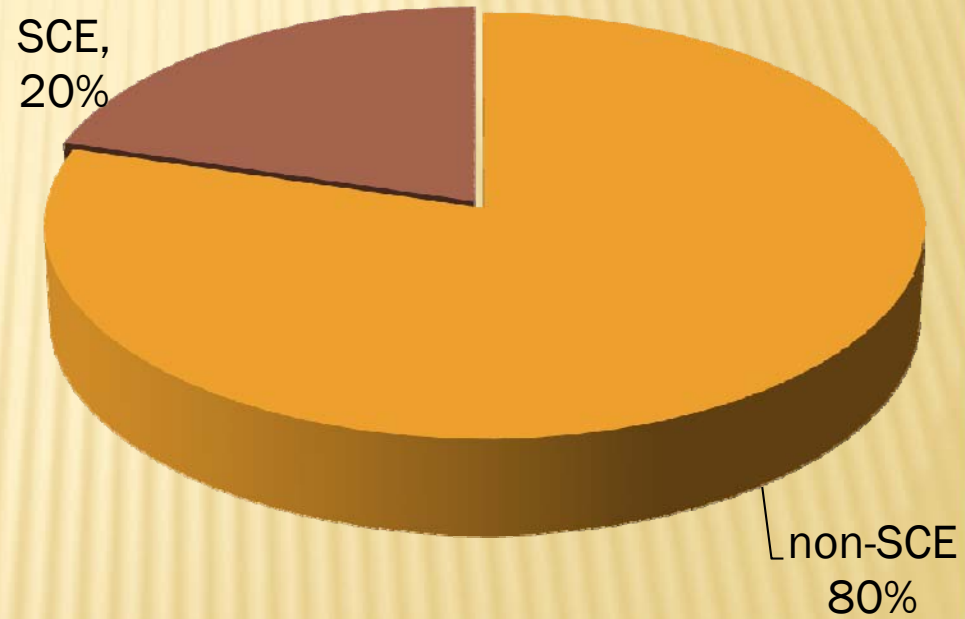
* Excluding colorants

SCE VERSUS NON-SCE

Sales



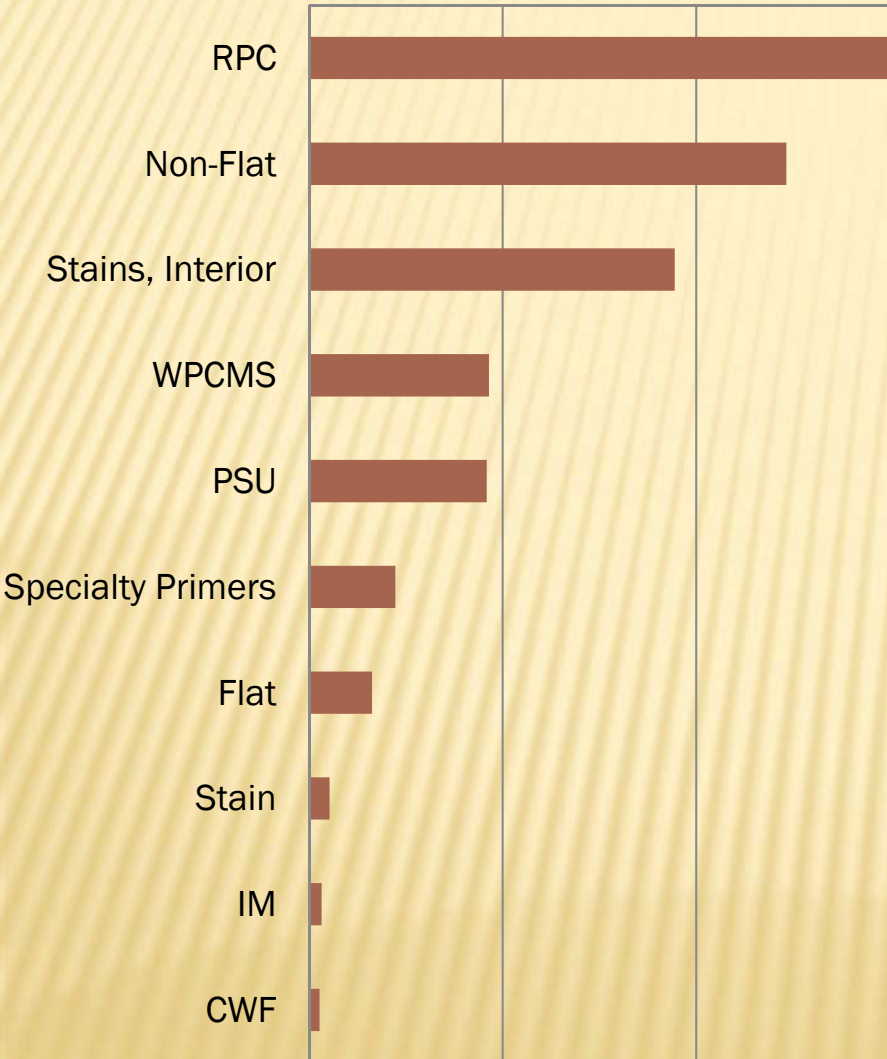
Emissions



TOP 10 CATEGORIES - SCE

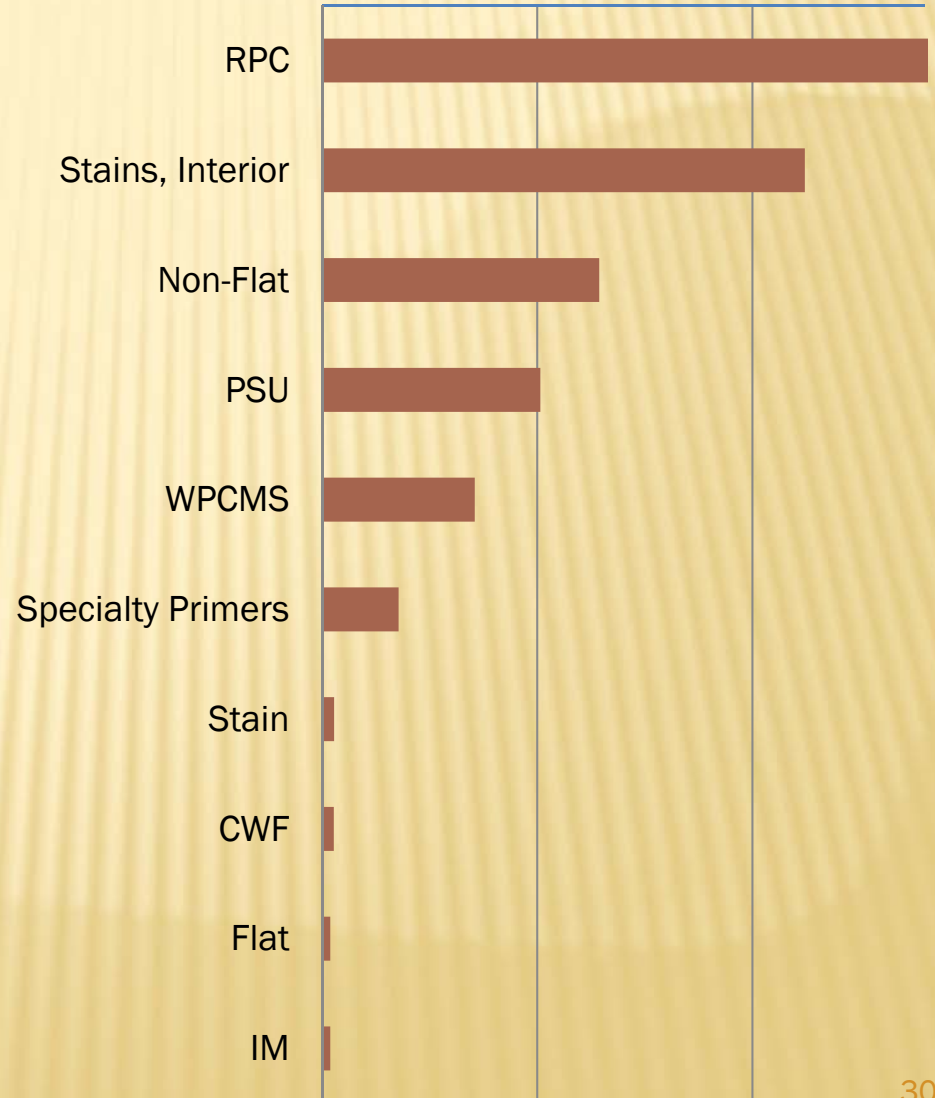
Thousands of Gallons Sold

0 50 100 150

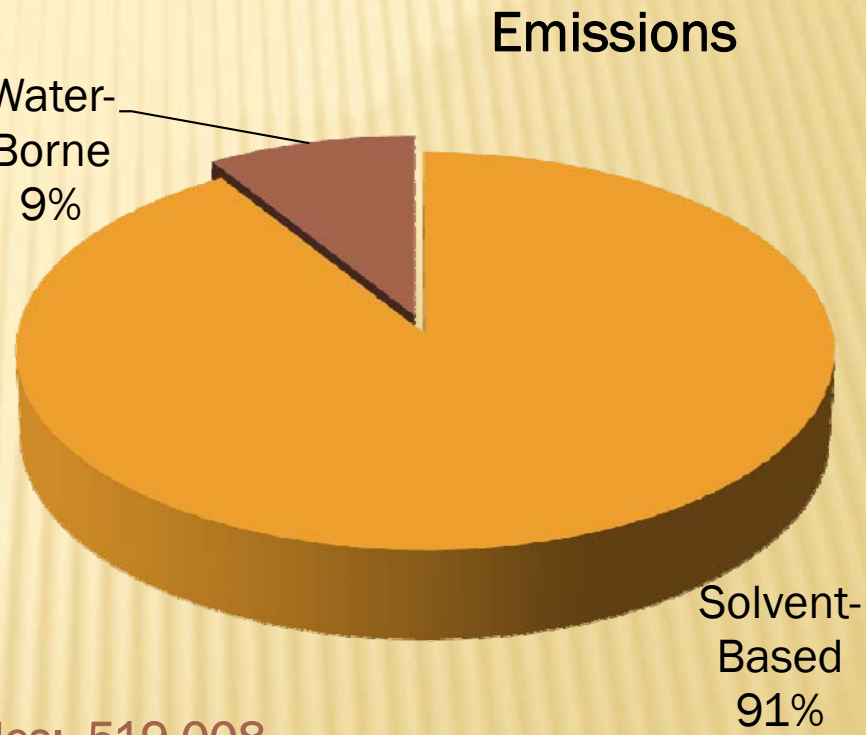
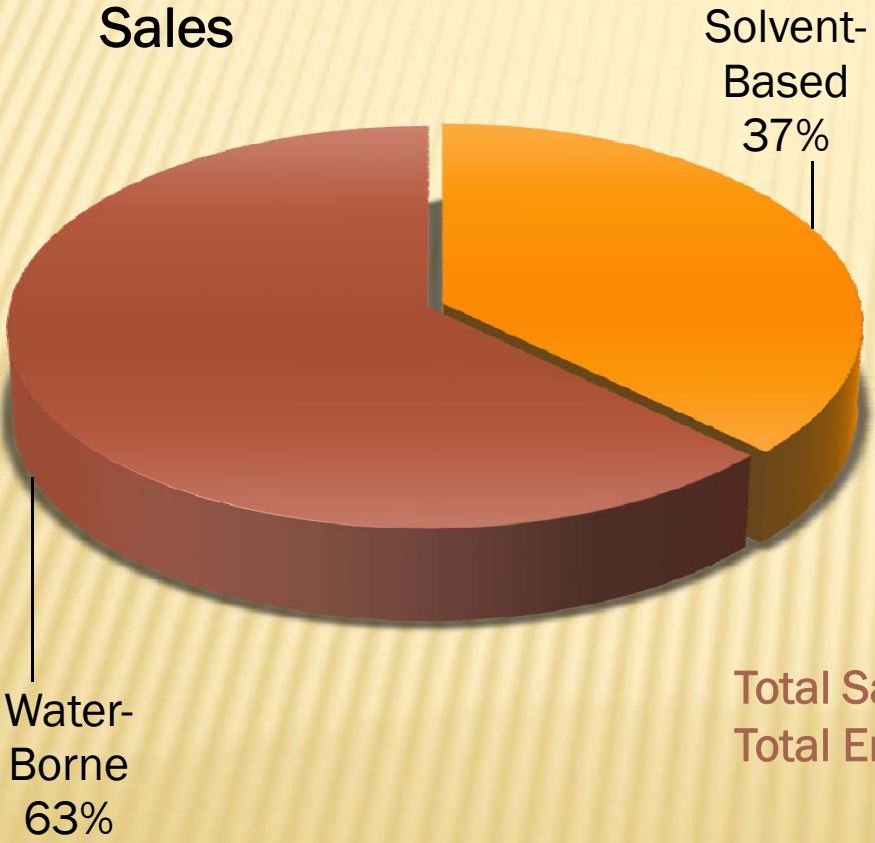


Emissions: Pounds per day

0 500 1,000



WATERBORNE VERSUS SOLVENT-BASED (SCE)



Total Sales: 519,008
Total Emissions: 2.2

TOP 10 CATEGORIES – WATERBORNE SCE

Thousands of Gallons Sold

0 20 40 60

Emission: Pounds per day

0 10 20 30 40

Non-Flat

WPCMS

Flat

Stain

Floor

PSU

Glazes

CWF

RPC

Stains, Interior



Non-Flat

Flat

WPCMS

Glazes

Stain

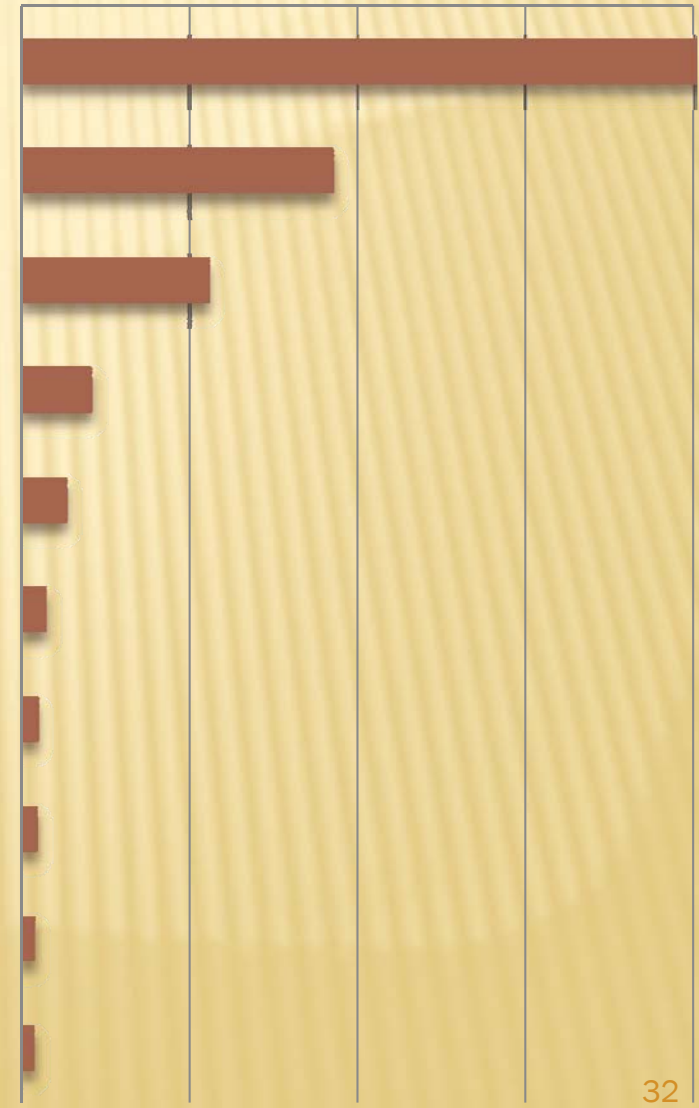
Decorative Faux

CWF

IM

Floor

PSU



TOP 10 CATEGORIES – SOLVENT-BASED SCE

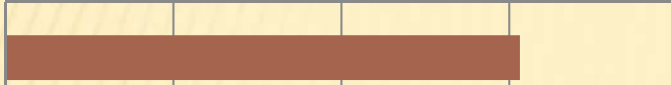
Thousands of Gallons Sold

0 20 40 60 80

Emissions: Pounds per day

0 500 1,000 1,500 2,000

Non-Flat



WPCMS



Flat



Stain



Floor



PSU



Glazes



CWF



RPC



Stains, Interior



RPC



Stains, Interior



Non-Flat



PSU



WPCMS



Specialty Primers



CWF



Stain



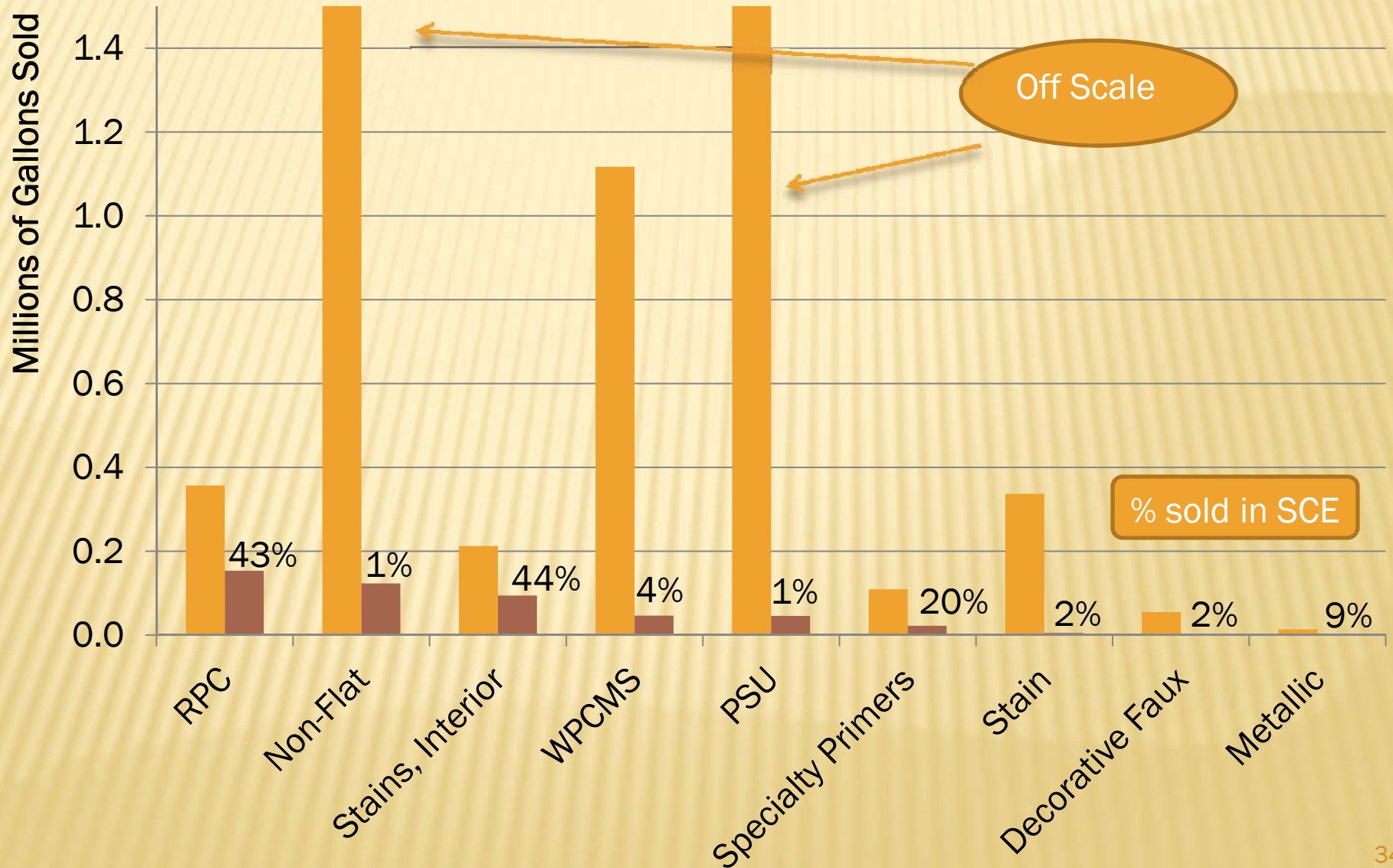
IM



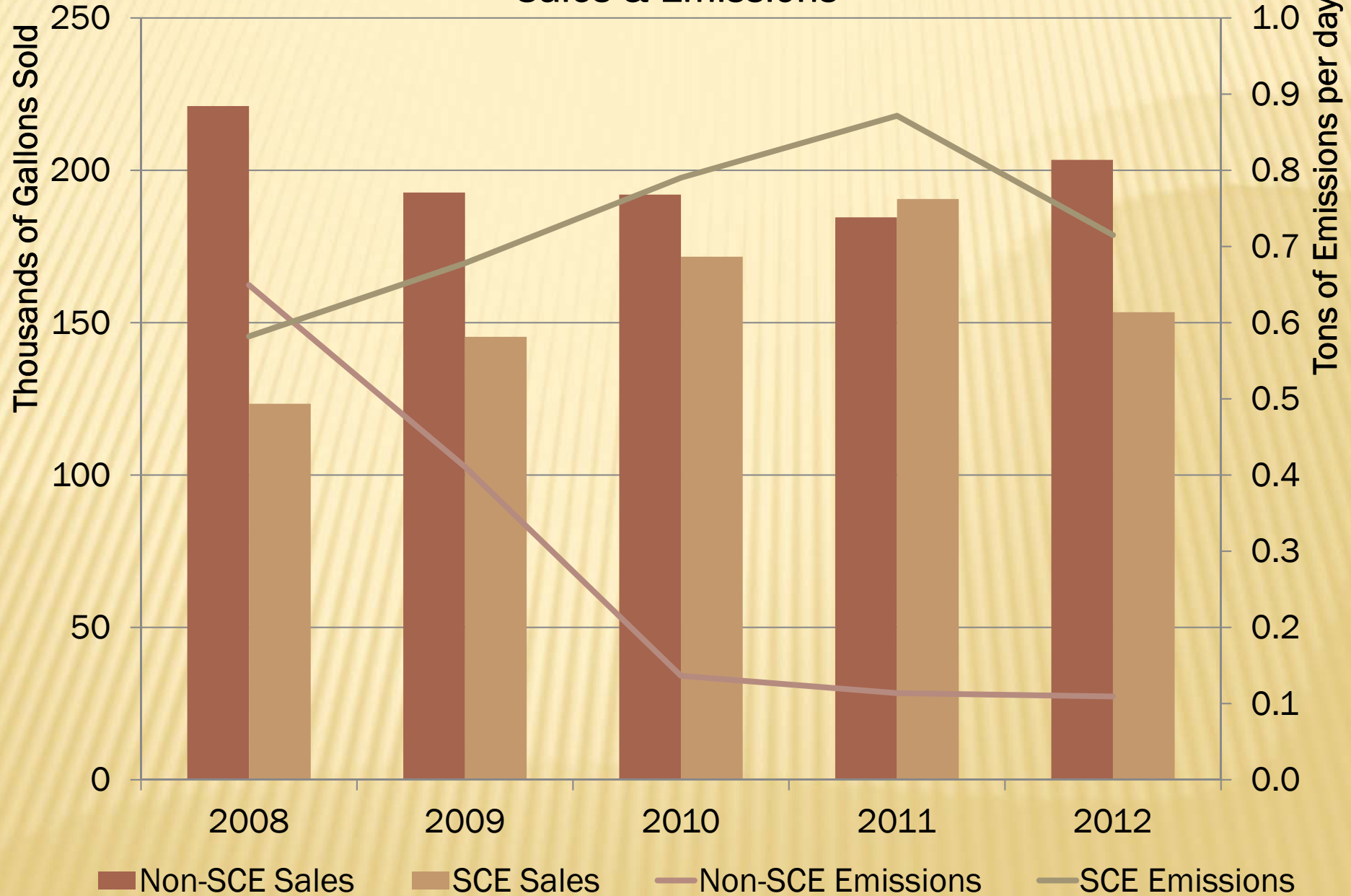
Metallic



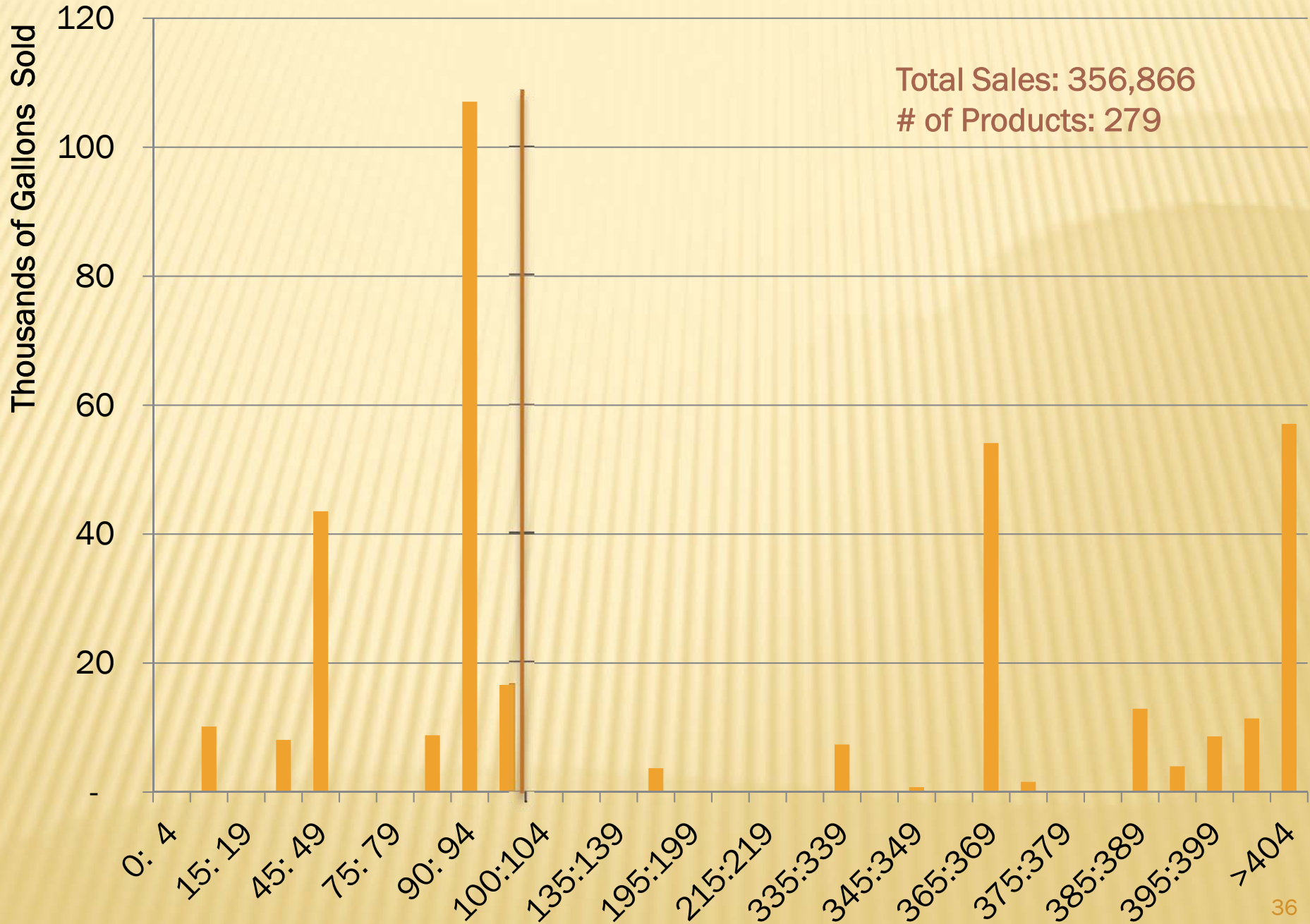
TOP SCE CATEGORIES: % IN SMALL CONTAINERS



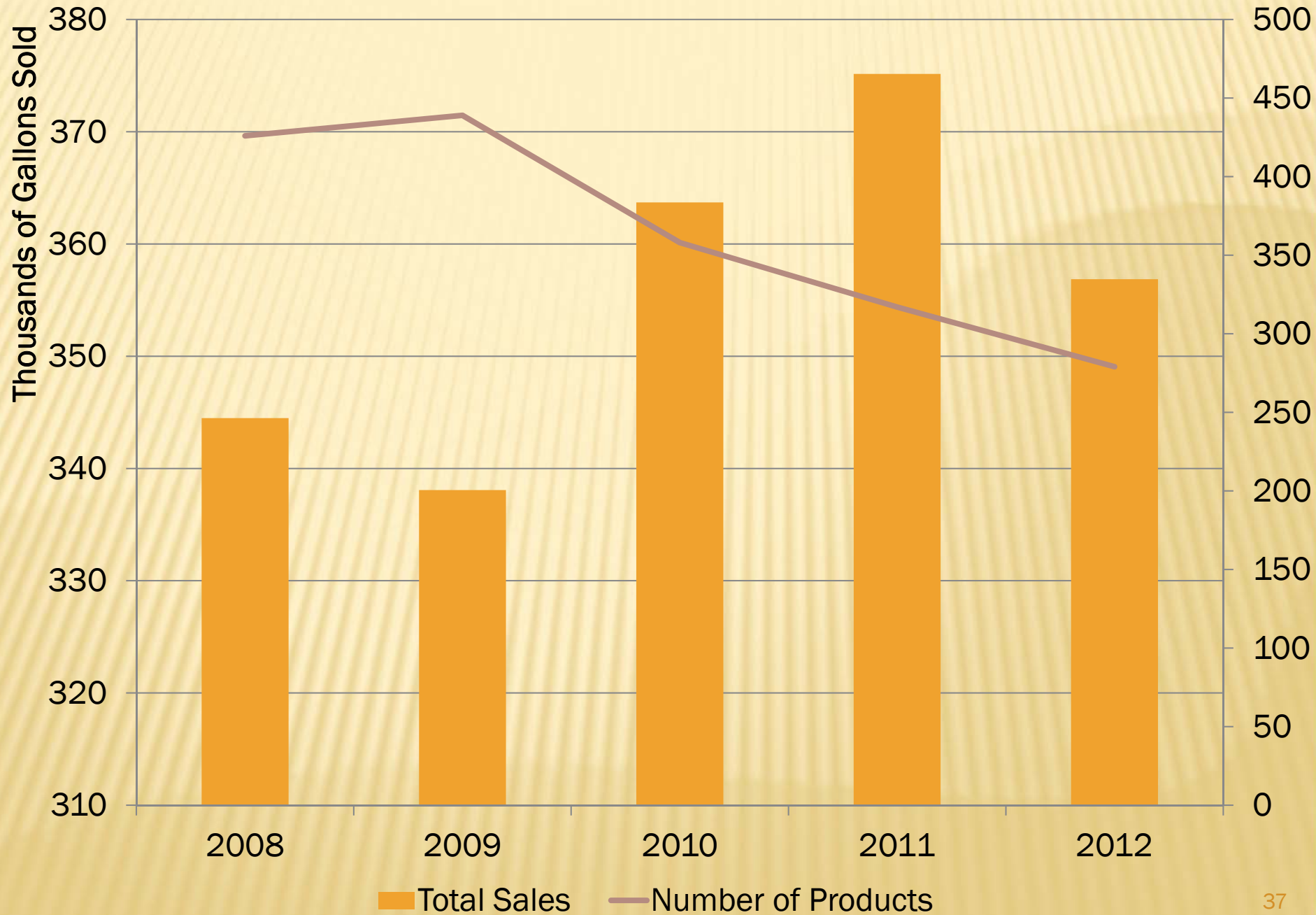
Rust Preventative Coatings Sales & Emissions



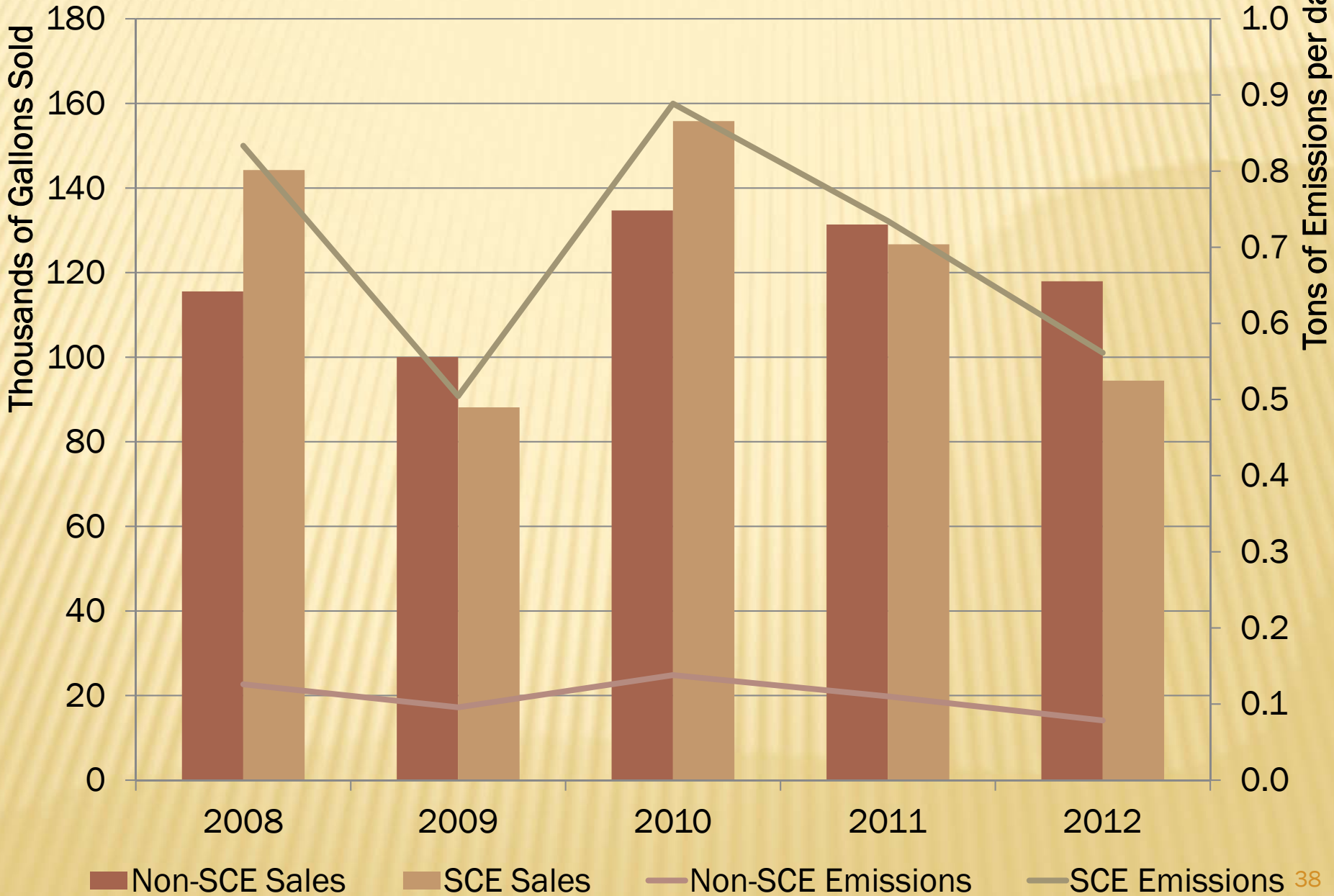
Rust Preventative Sales



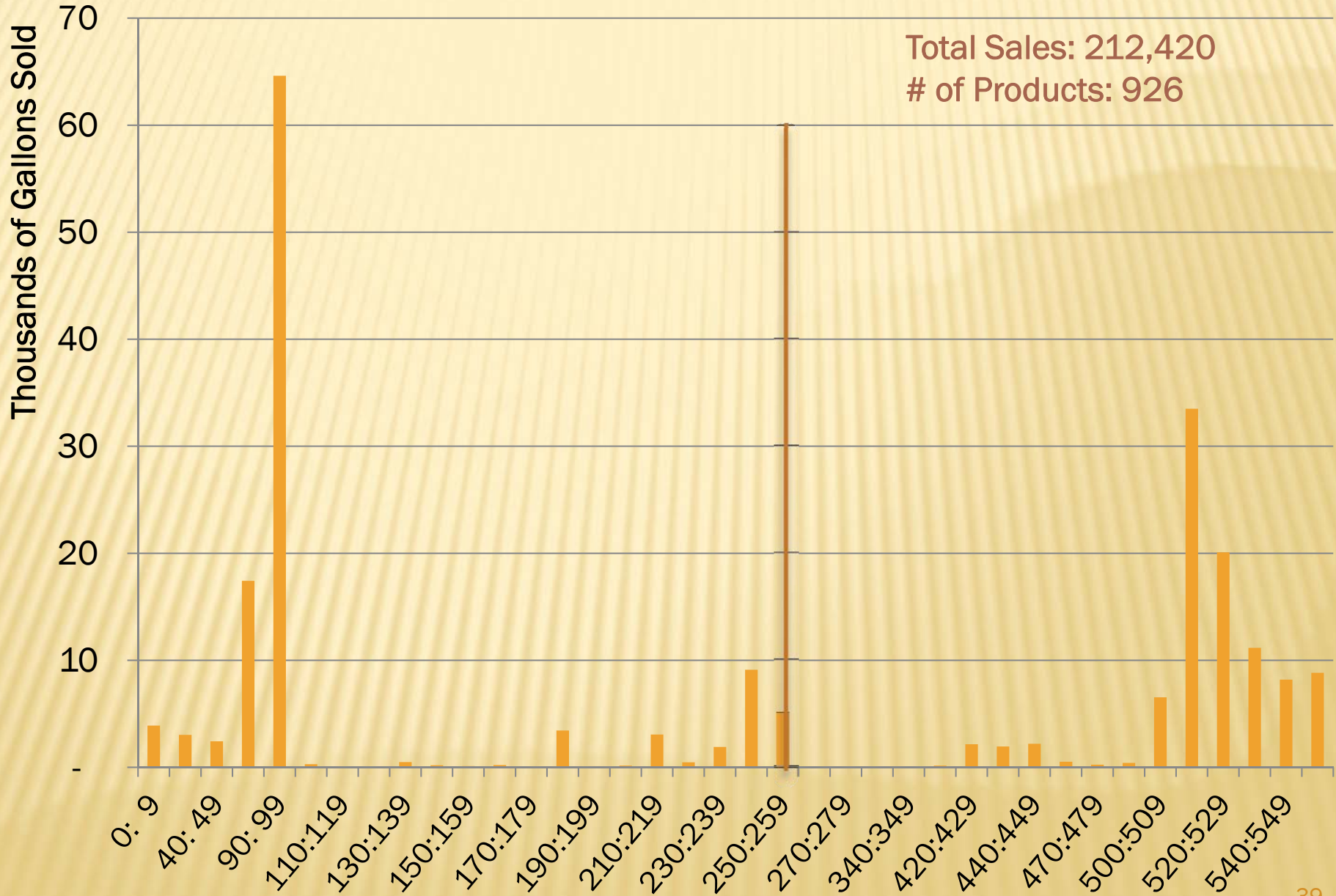
Rust Preventative Coatings



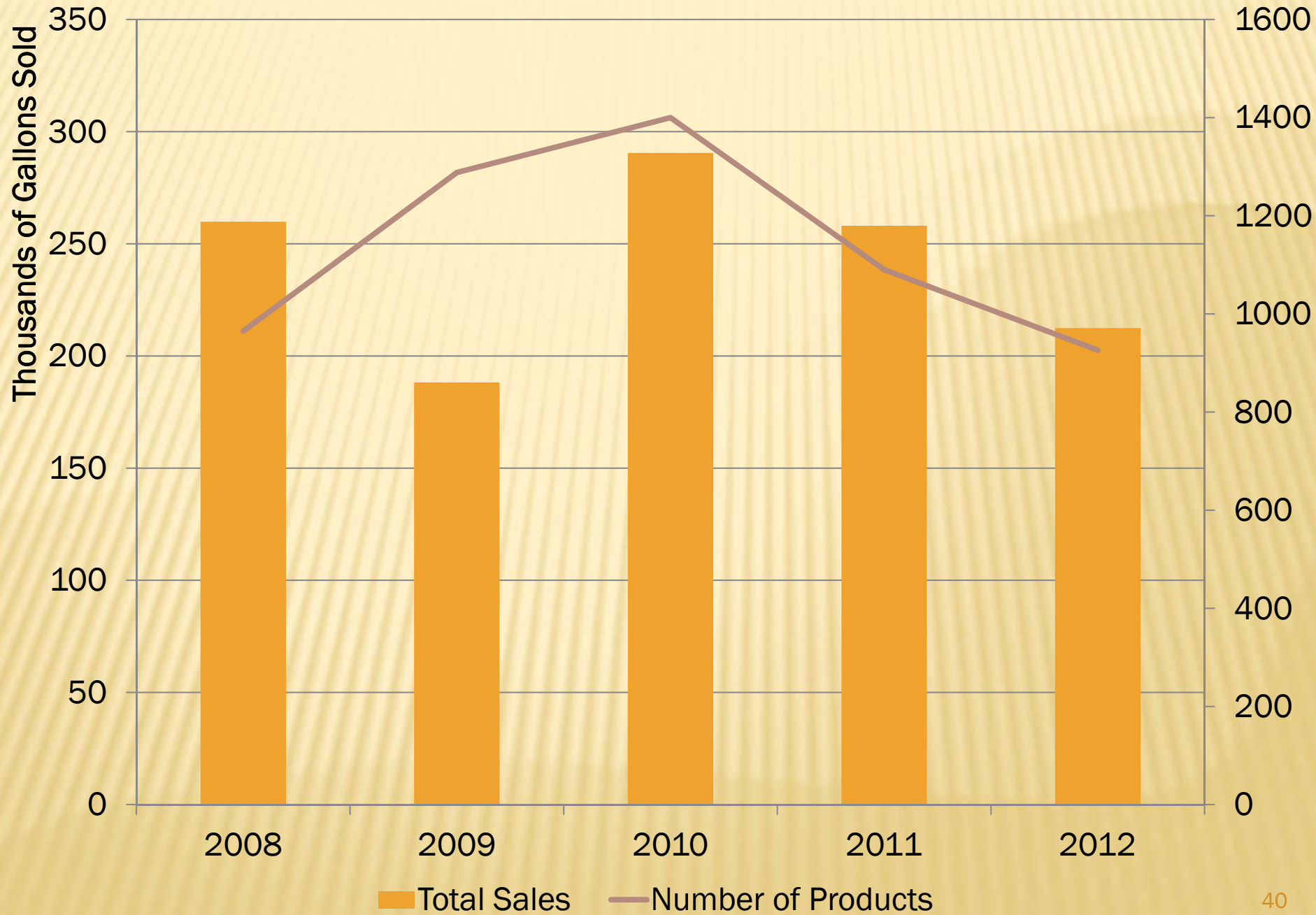
Interior Stains Sales & Emissions



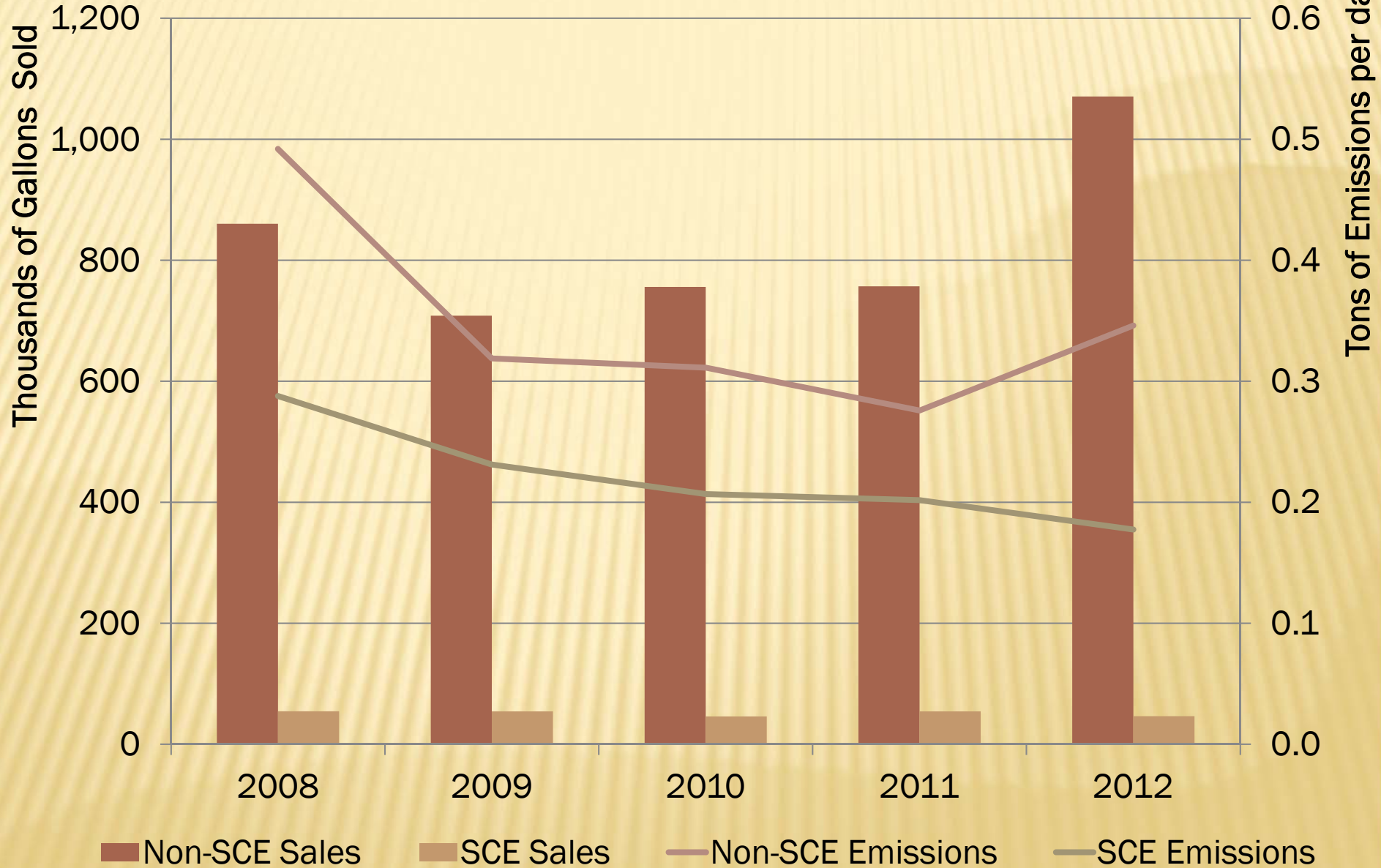
Interior Stains - All Products



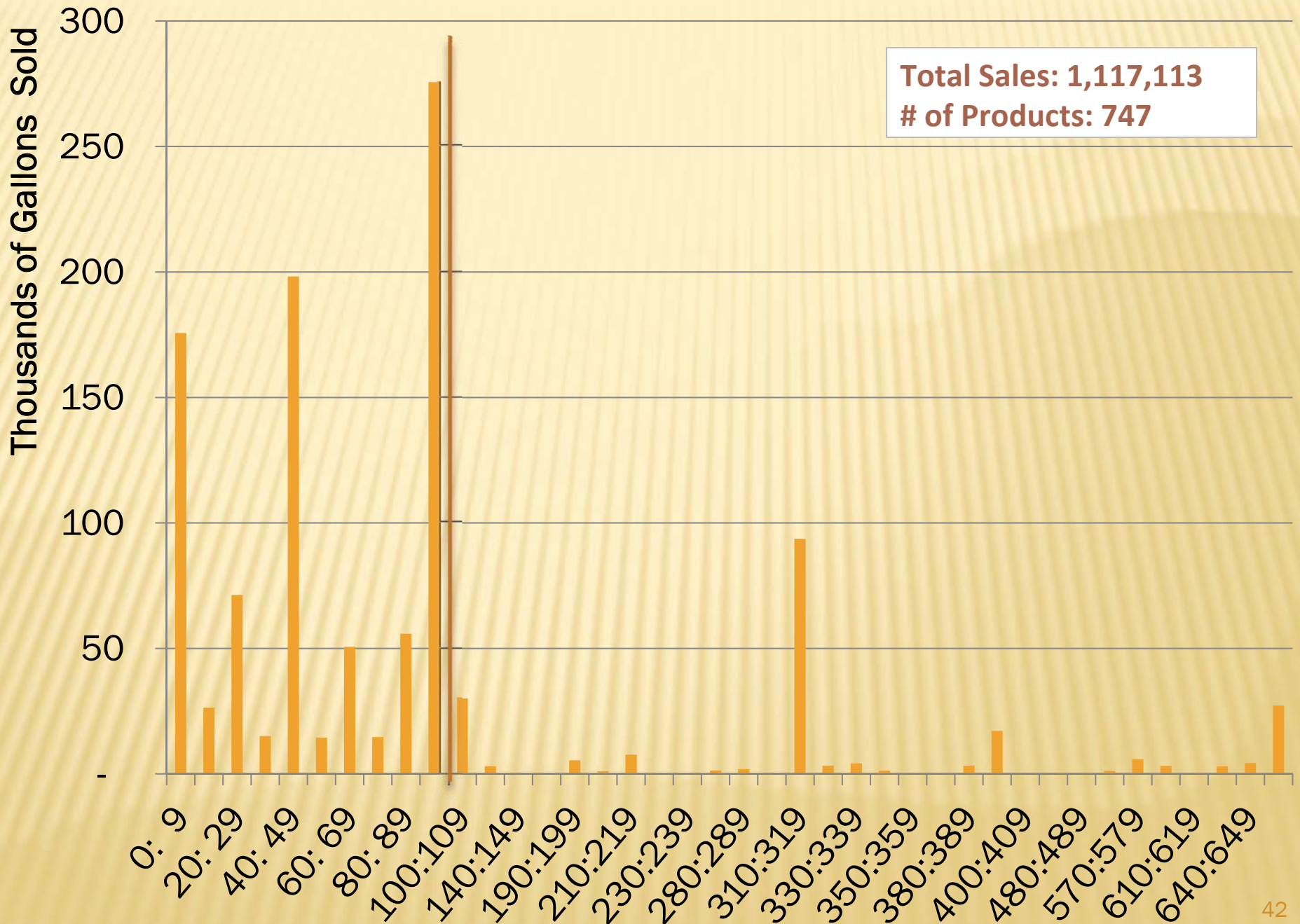
Interior Stains



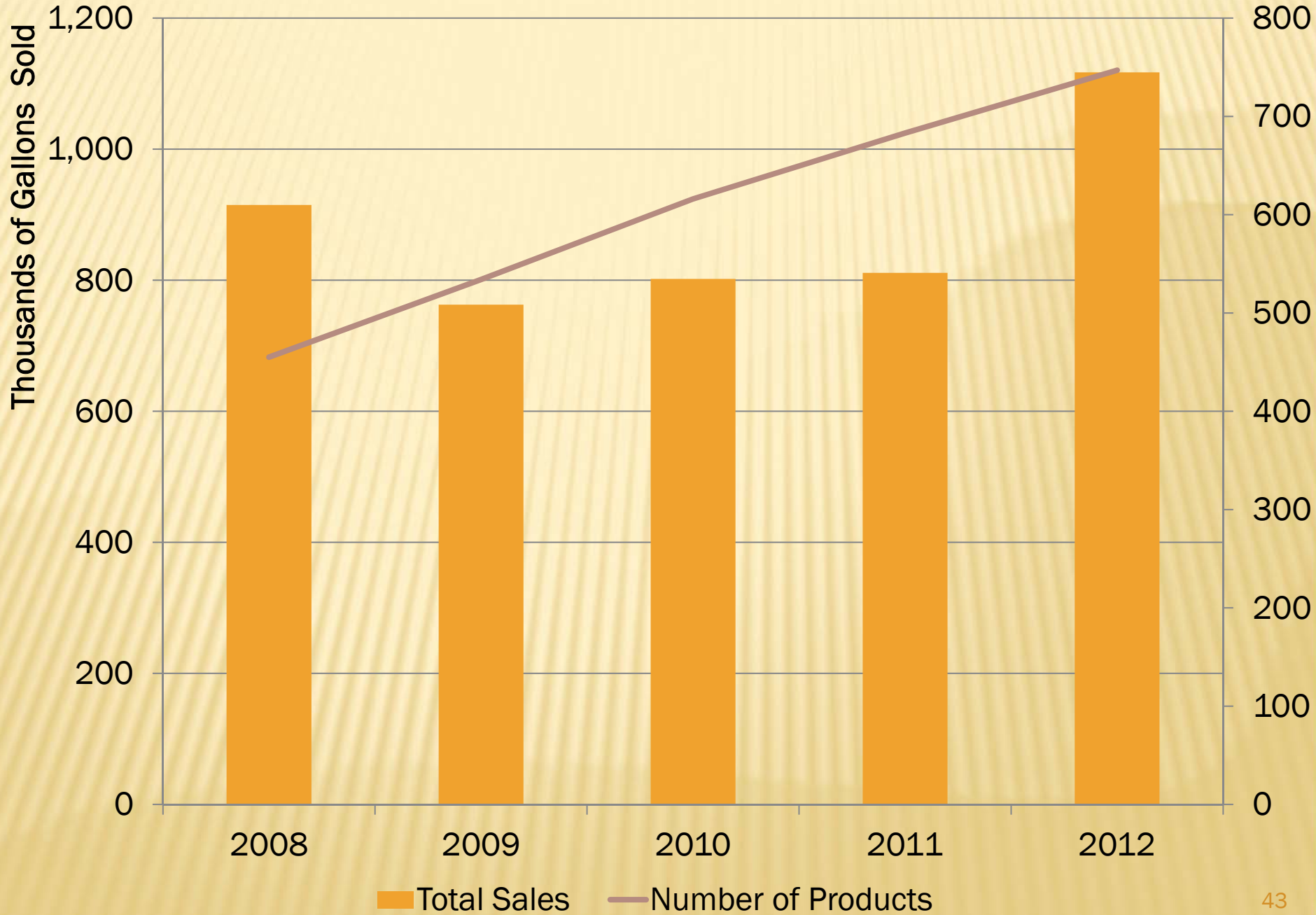
Waterproofing Concrete/Masonry Sealers Sales & Emissions



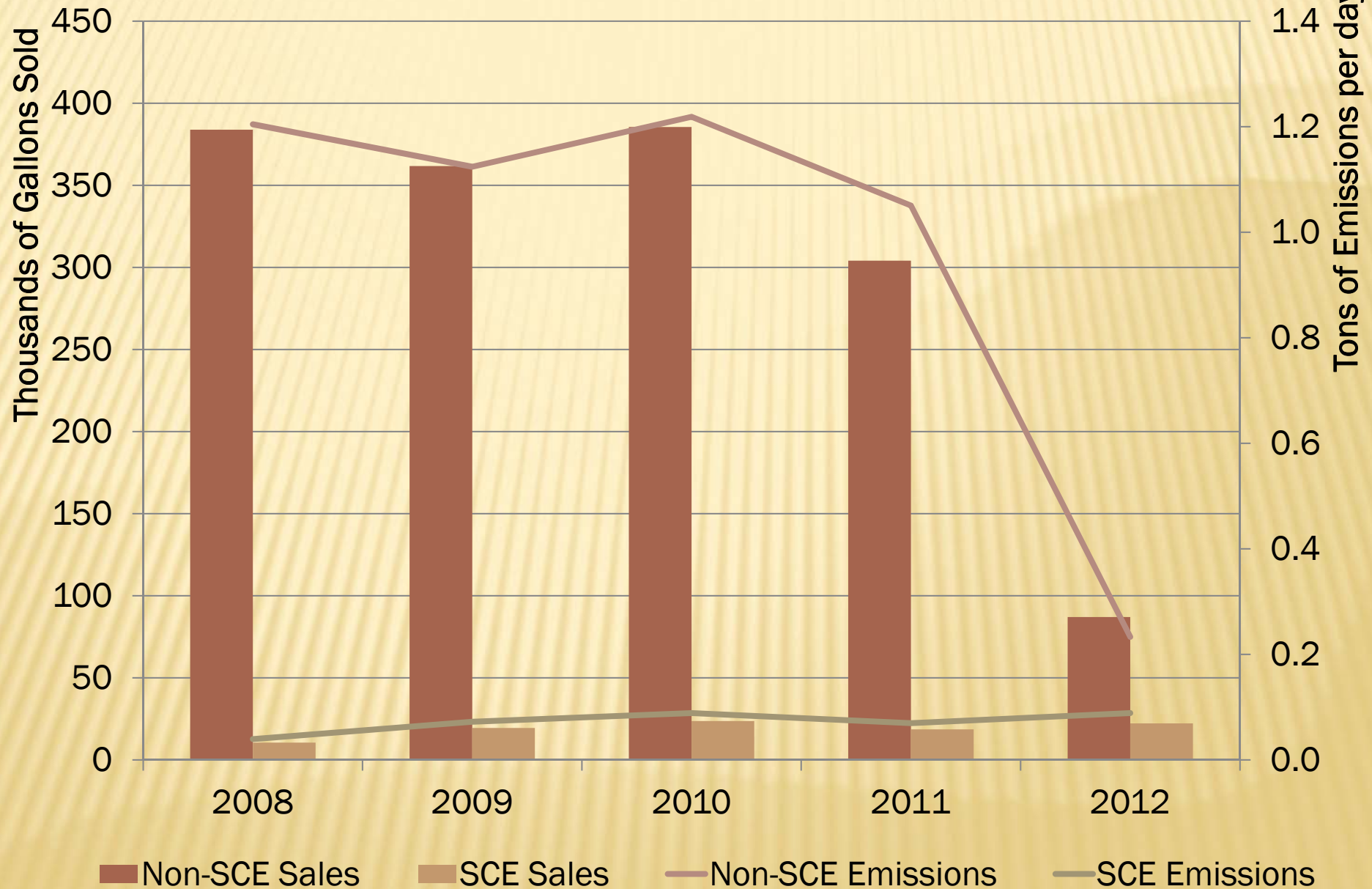
Waterproofing Concrete/Masonry Sealers Sales



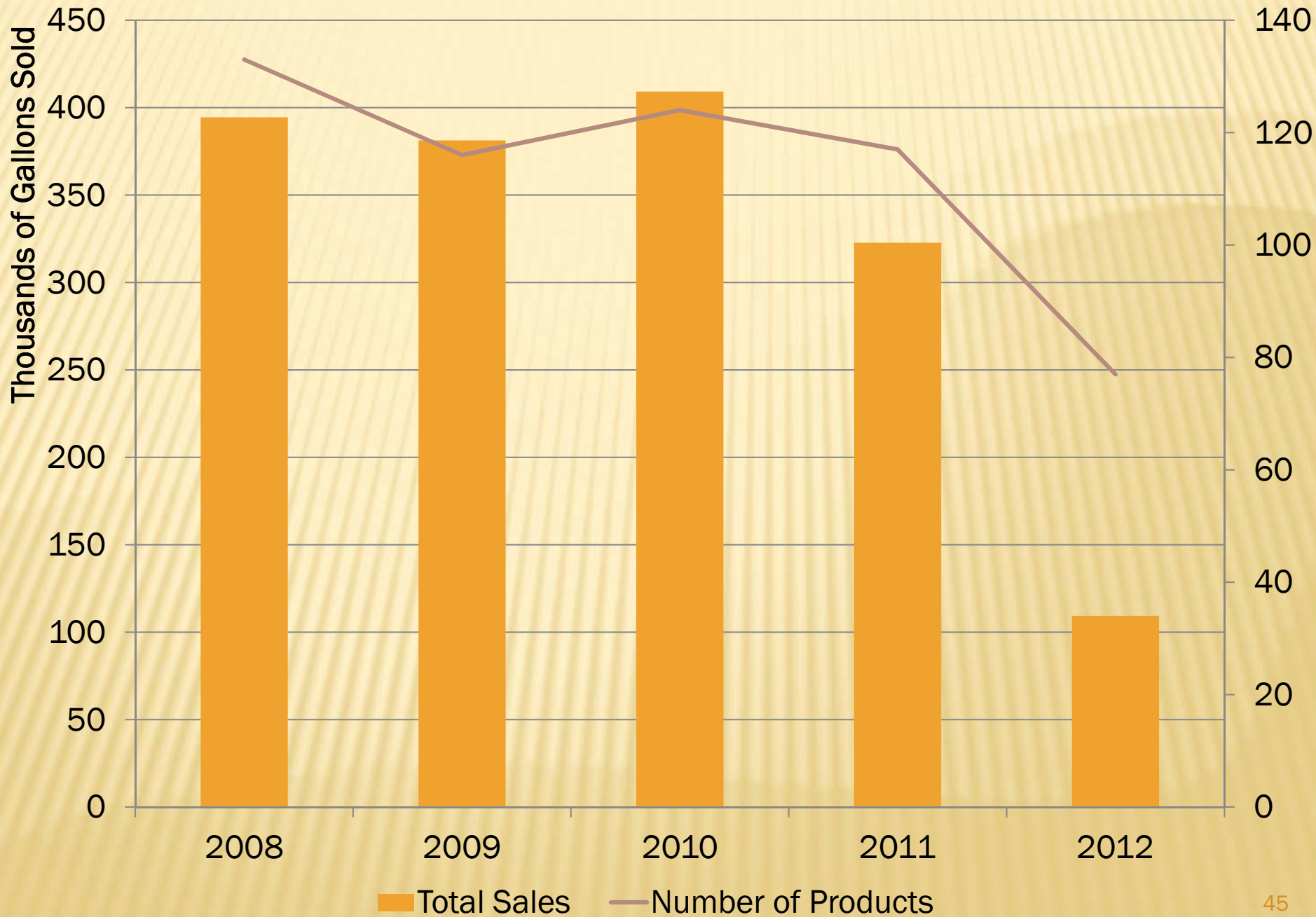
Waterproofing Concrete/Masonry Sealers



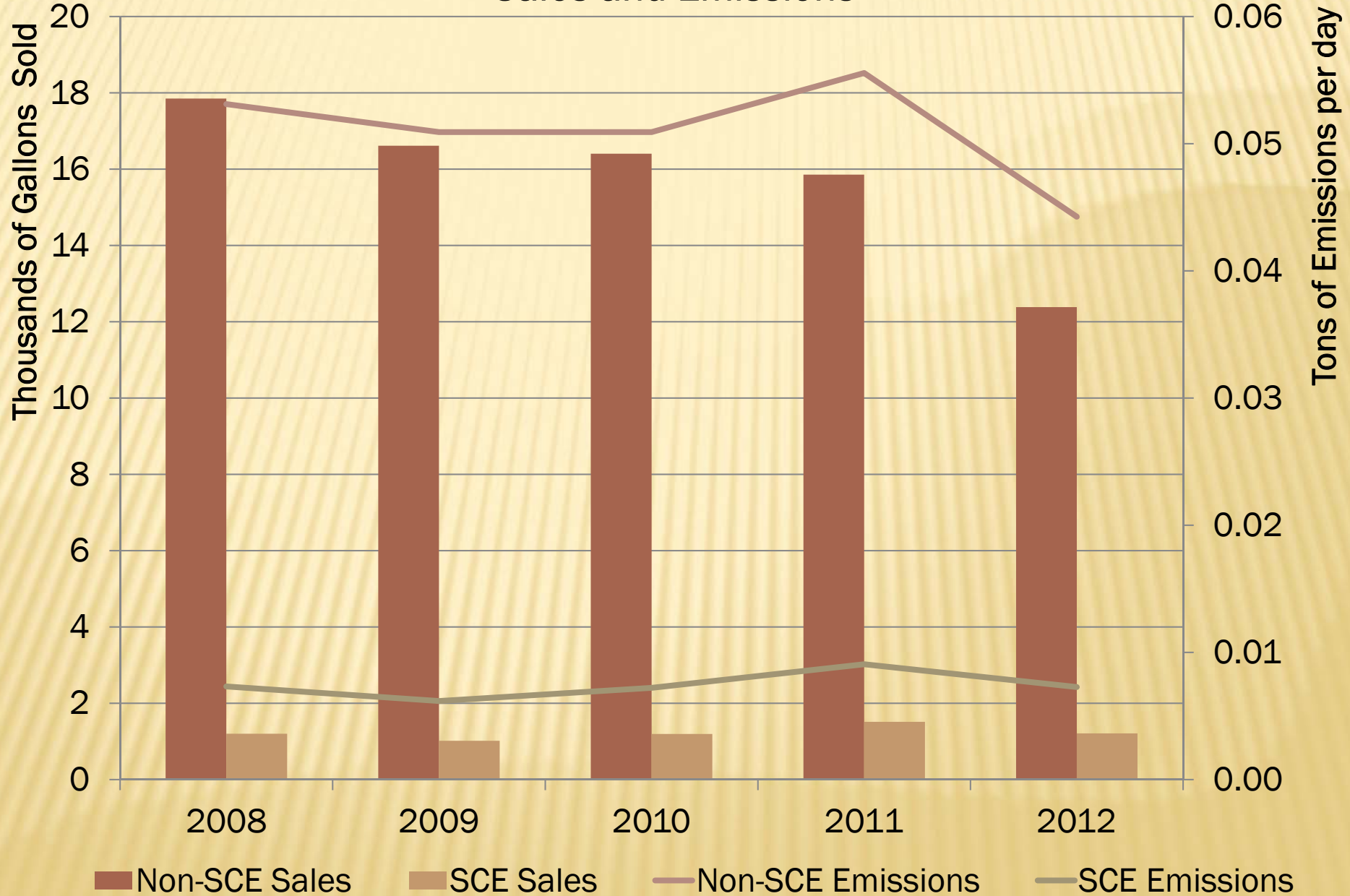
Specialty Primers Sales & Emissions



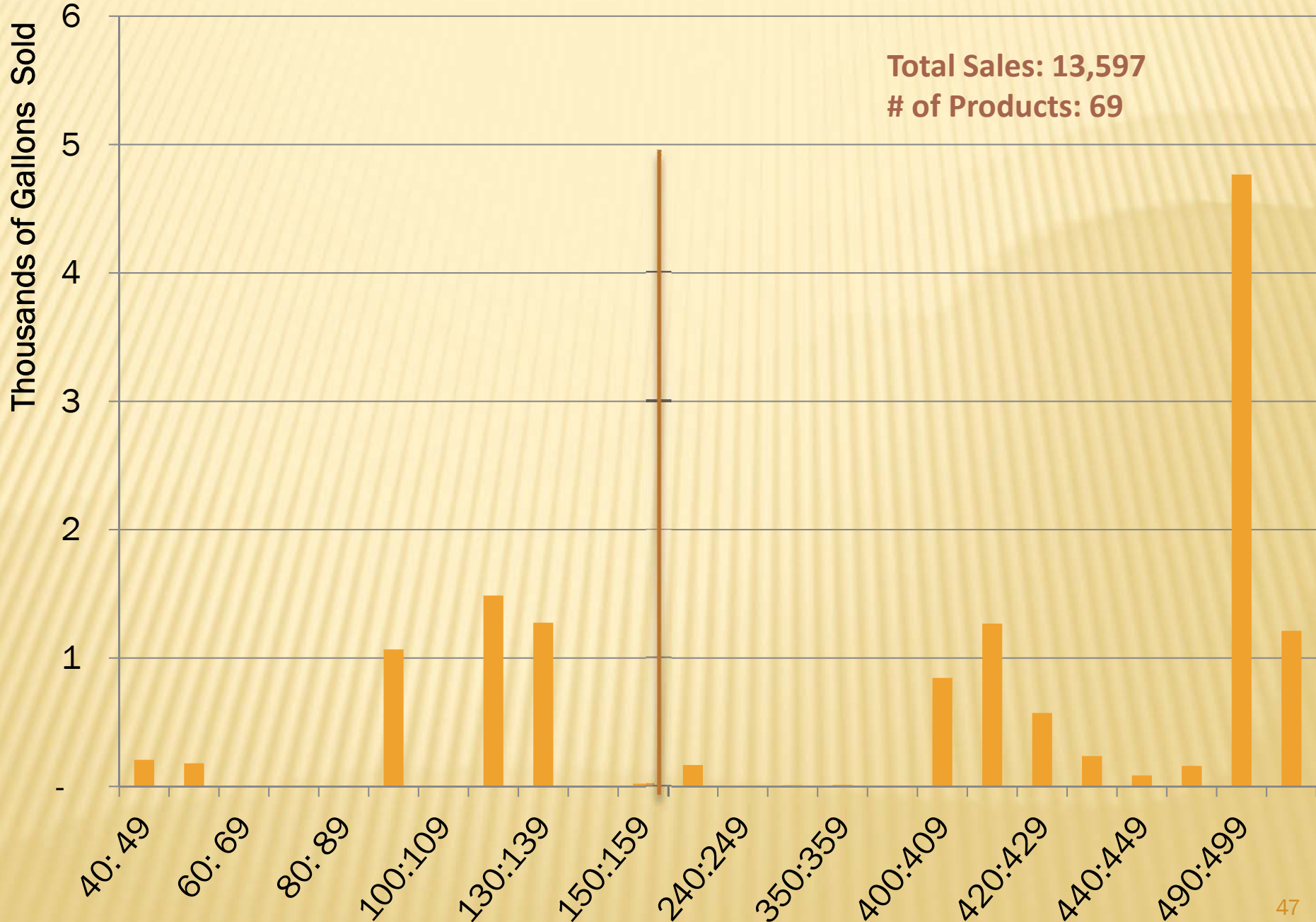
Specialty Primers



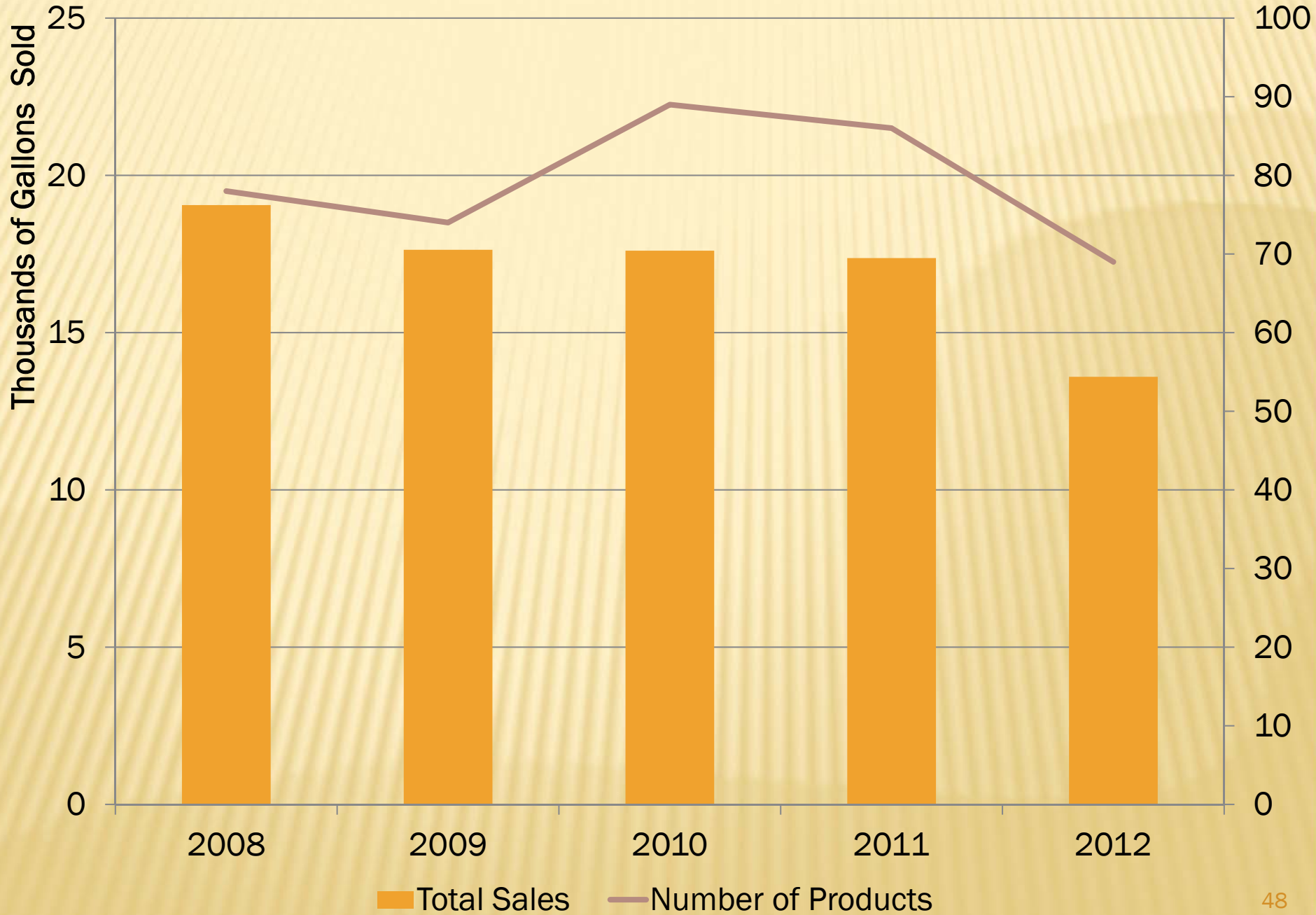
Metallic Pigmented Coatings Sales and Emissions



Metallic Pigmented Sales



Metallic Pigmented Coatings



FURTHER AREAS OF EXPLORATION

TRANSFER EFFICIENCY



- ✘ Initial discussion with spray gun manufacturers
 - + Overspray
 - + OEM Versus Retrofit Technologies
 - + Technology Transfer
 - + Training Programs

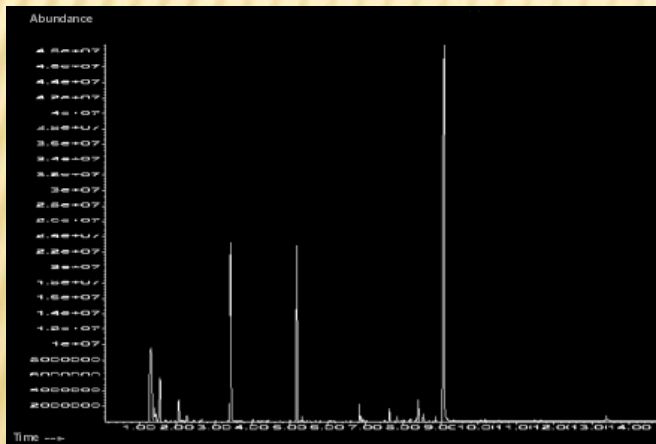
PAR 1113 – CATEGORY CLARIFICATIONS

- ✘ Building Envelope Coatings
- ✘ Architectural Mold Release Agents
- ✘ Clear Wood Finish – Undercoater
- ✘ Revisit Reactive Penetrating Sealer Requirements
- ✘ Faux Glazes
 - + Revise Definition
 - + Evaluate VOC Limits
 - + Include Artistic Glaze and Architectural Glaze



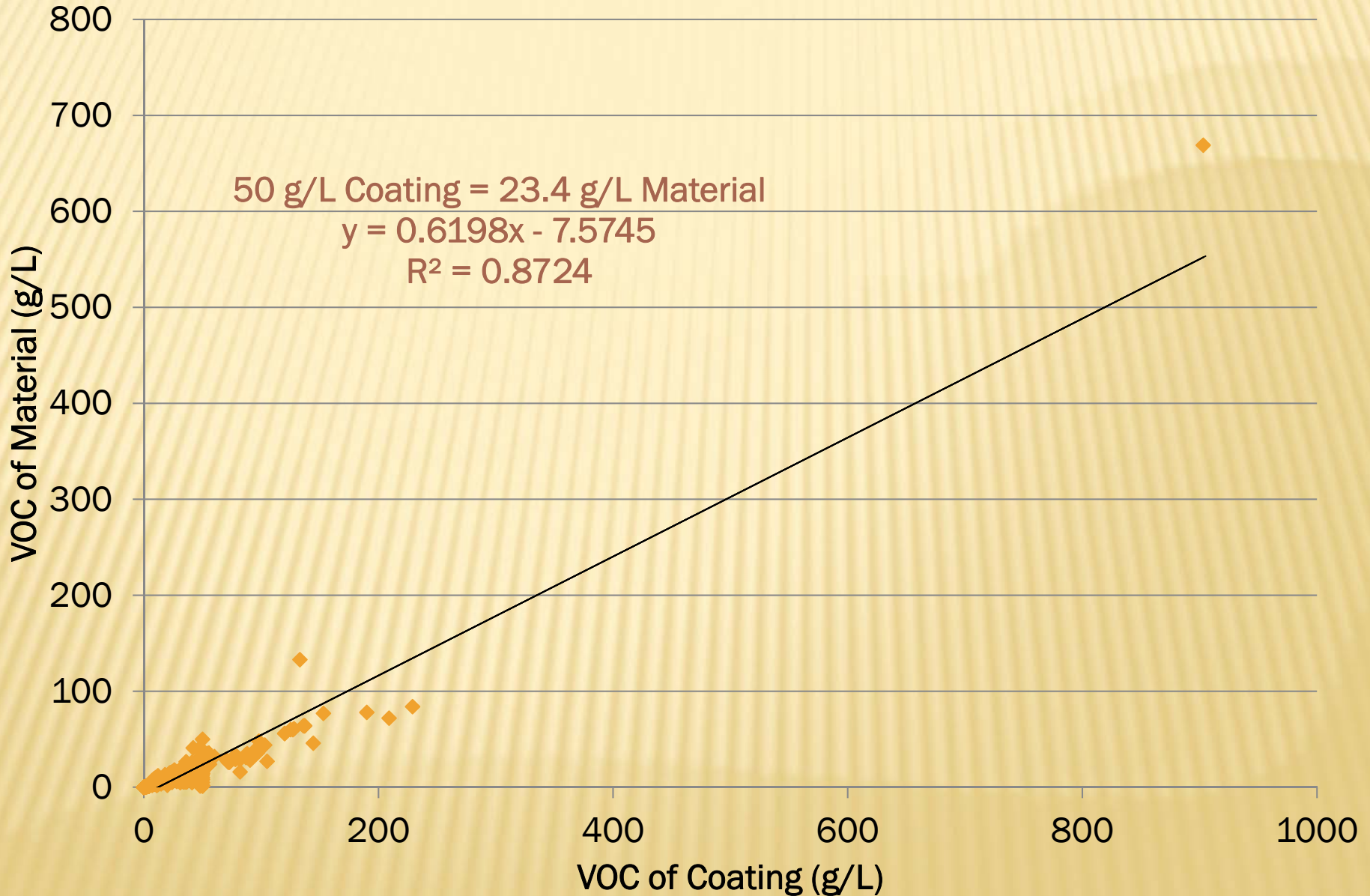
VOC TEST METHODOLOGY

- ✘ Include SCAQMD Method 313 with compound exclusion pathway
- ✘ Change VOC metric to VOC of material

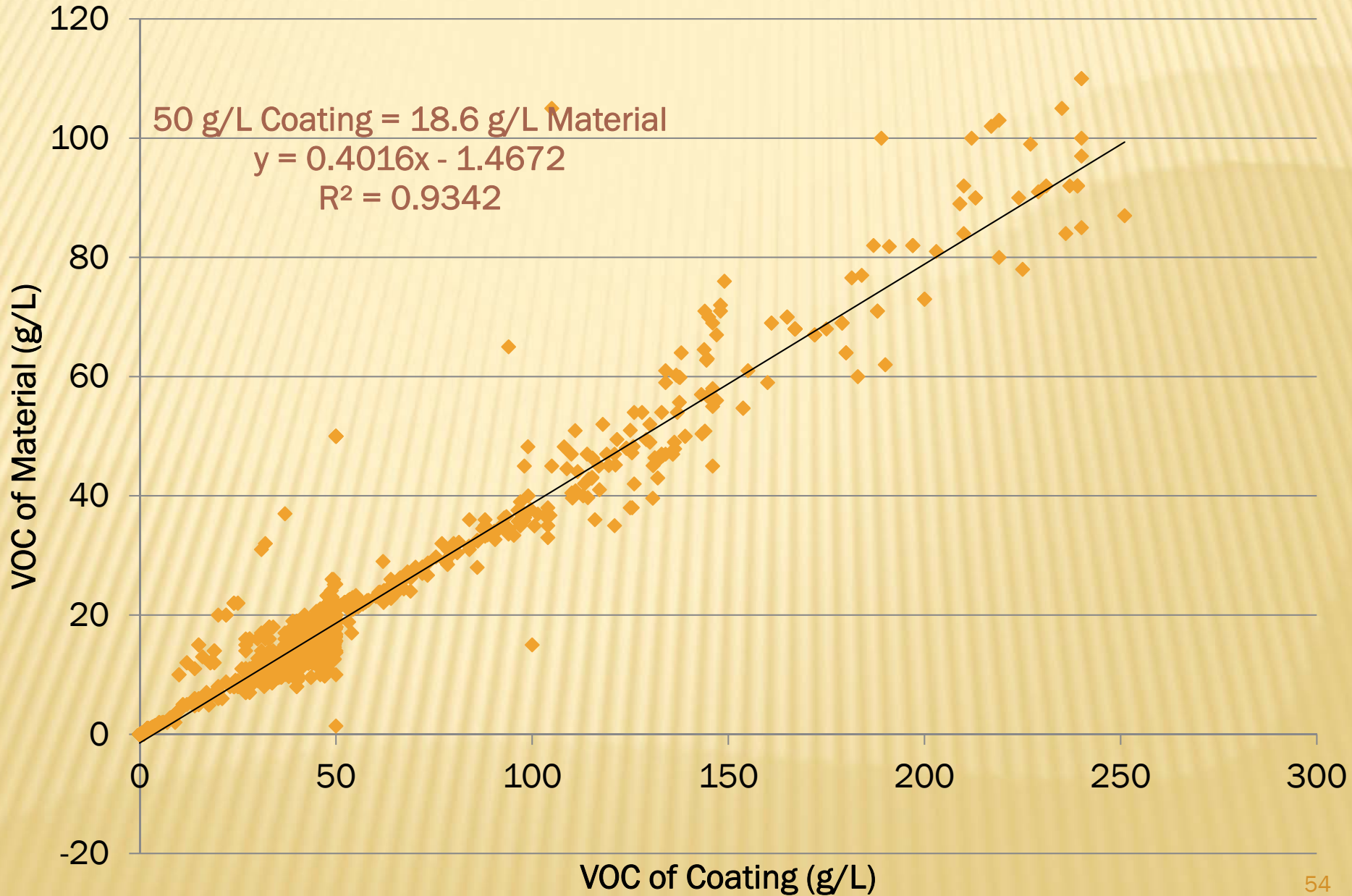


VOC of Coating v VOC of Material

Flat waterborne



VOC of Coating v VOC of Material non-Flat waterborne



VOC of Coating v VOC of Material PSU waterborne

