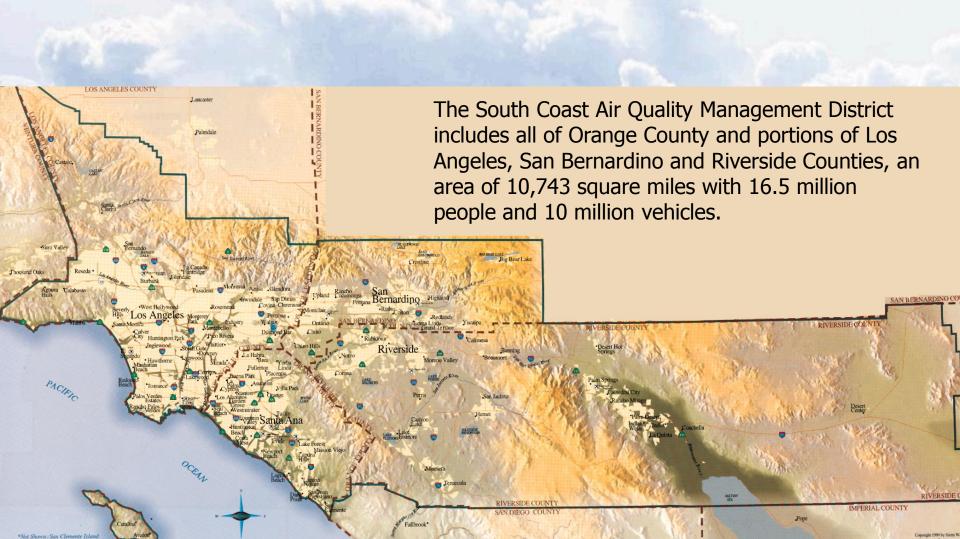
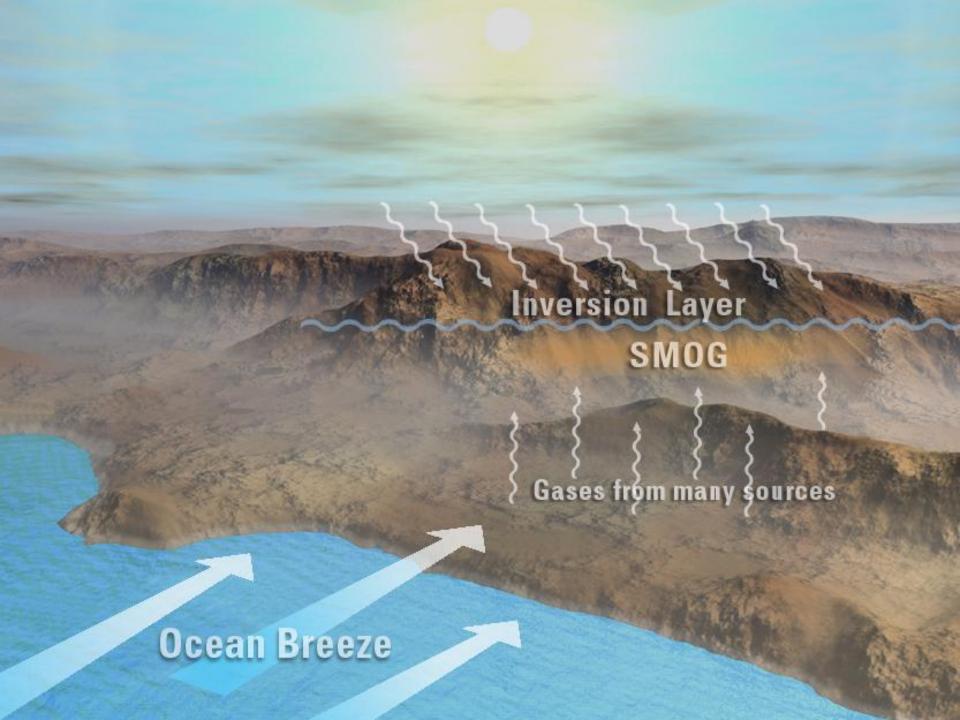
VOC Emissions from Metalworking Fluids



March 8, 2012

South Coast Air Quality Management District





Since 1950s



- Population -
 - 4.8 Million



- 2.3 Million
- Manufacturing
 - \$10.5 Billion
- Peak Ozone Levels -
 - 0.68 ppm



16.5 Million



10.5 Million



\$203.8 Billion



0.18 ppm

Background

- Southern California is the largest manufacturing site in U.S.
- Over 12,000 machining shops
 - Mostly small businesses
- SCAQMD surveyed local manufacturers and distributors
 - 4.2 million gallons of metalworking fluids sold in South Coast (2007)
 - Over 300,000 gallons were high VOC products
- Majority of products sold No VOC information

Purpose

- Reduce VOC emissions
- Establish a test method to determine VOC content for metalworking fluids
- Minimize impacts on shops
- Prohibit sale of non-compliant materials







- Regular working group meetings
 - 200+ stakeholders participating/following meetings
- Laboratory committee to work on test method
- Collaborative effort to create a "smarter" rule
 - Open exchange of ideas
- Working towards common goal

Reduce air pollution



Minimize burden on industry

Applicability



Manufacturing and Assembly operations



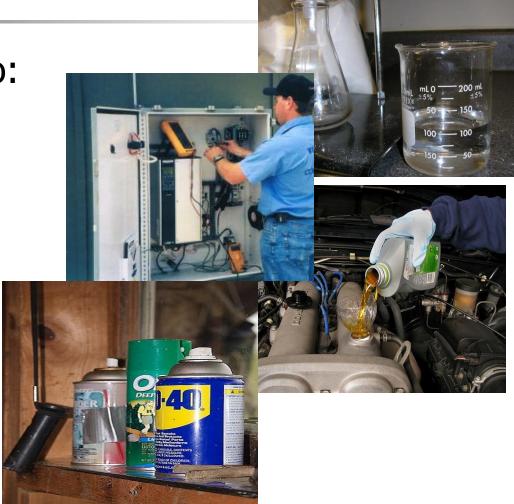
Direct-contact with products made for sale



What Does the Rule Not Cover?

Rule does not apply to:

- Repair
- Maintenance
- Research
- Household
- Commercial
- Indirect/Accidental contact





Rule 1144 Shop Requirements

- Establish Volatile Organic Compound (VOC) content limits
 - Use of solvents and light oils (C12-C16) heavily restricted
 - VOC content limits "as used"
 - Use-Through allows inventory to be exhausted until June 30, 2012
- Streamlined record keeping
 - No record keeping for Super-Compliant products
 - Monthly purchase records

DRAFT SAMPLE FOR DISCUSSION PURPOSES ONLY





South Coast Air Quality Management District P.O. Box 4944 Diamond Bar, CA 91765

RULE 1144 VOC LISTING

Legal Name of Manufacturer:	Manufacturer's ID Number:
> Machine It All	> 9999999
Street Address:	City:
> 21333 Painted Road	> Rancho Cucamonga
State:	ZIP Code:
> CA	> 90111
Responsible Party:	Position:
> Jiminy Crickett	> Supreme Commander

	Manufacturer's	Working Fluid			
Manufacturer	Product Code	Category	VOC Content (g/I)		
Big Oil	ABC 123	Metalworking fluid	75		
Cool It	XYZ 911	Metalworking fluid	20		
ACME	RR44XY	Rust Inhibitor	250		
MilShield	US 2010	Military Spec. Pres.	325		
Slick	9876768-12	Direct-contact lube	10		
Electrocut	ZAP-711	EDM	650		



DRAFT SAMPLE FOR DISCUSSION PURPOSES ONLY

South Coast Air Quality Management District P.O. Box 4944 Diamond Bar, CA 91765

RULE 1144 Usage Log - Jan 2011

Date of Data Entry:

Legal Name of Manufacturer:	Manufacturer's ID Number:
> Machine It All	> 9999999
Street Address:	City:
> 21333 Painted Road	> Rancho Cucamonga
State:	ZIP Code:
> CA	> 90111
Responsible Party:	Position:
> Jiminy Crickett	> Supreme Commander

	Manufacturer's		
Manufacturer	Product Code	Amount (gallons)	Initials
Big Oil	ABC 123	100	ММ
Cool It	XYZ 911	5000	MM
ACME	RR44XY	250	MM
MilShield	US 2010	20	MM
Slick	9876768-12	50	ММ
Electrocut	ZAP-711	400	MM

VOC Limits

FLUID	EFFECTIVE 1/1/2010	EFFECTIVE 1/1/2011	EFFECTIVE 1/1/2012
	VOC (g/L)	VOC (g/L)	VOC (g/L)
(A) Vanishing Oil	50		
(B) Metalworking Fluid			
(i) Metal Forming			75
(ii) Metal Removal			
(a) General			75
(b) Precision Metal Removal			130
(iii) Metal Treating			75
(iv) Metal Protecting			
(a) General	300		50
(b) Military Specified Preservative		340	
(C) Direct-Contact Lubricant			50



Prohibition of Sale

- May inform distributors (in writing) not to sell certain products into SCAQMD
- Six month sell-through period
 - Products formulated before 1/1/2012

Container labeling

- Manufacture date
- VOC content as shipped (undiluted) per ASTM E 1868
 - May be calculated
- Optional to include diluted VOC and Super-Compliant status

Annual Quantity and Emission Report

- Three year SCAQMD sales report
 - Report annually beginning in 2012 (for 2011 sales)
 - First report due April 1, 2012
- Report must include:
 - Product
 - Volume of sales in SCAQMD
 - VOC content
- May use AQMD/ILMA recommended format
- Data provided will be confidential
 - Only released in aggregate form

AQER (Recommended Format)

		South Coast At Quality Management Durice P D Date 984 Damoed Bur, CA 97365 999) 396-2000	RULE 1144 METALWORKING FLUID AND DIRECT-CONTACT ANNUAL QUANTITY AND EMISSION REPORT							
Section I – Administrative information										
Slide Lubricants, Inc.										January 1-Dec. 31, 2011
noc Longiciality, IIIC.										panning 1-2022, 32, 2011
531 S. Legato Street	et			Los Angeles		CA				90210
JOI D. ELEMO DIECE			AND DESCRIPTION OF THE PARTY OF	LUI MIGELI		F-A				70210
				909-396-3282						
W.S. Payton			President	909-396-3282			nnoriePond ex			
Section II – Product information										
		2	c	D	E	F	G	н	1	1
Line Number	Name of product manufacturer AS LISTED ON THE LABEL	ReselVate	Product Name	Number of Products Granged	Base Steck Technology ² .	Bide 1144 Category ²	NOC Content in g 1. (before dilution with water je	ellstendreller dilusion with water? Indicate with "I" if you	For water dilutable. Det maximum recommende dans concentration (here of dilutator and they're concentration water	Quantity (gallino)
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¹ Number of Products Grouped: Products can be reported either individually or as a group. All grouped products are required to have the same value for columns E through G. Enter "1" if you are reporting one product individually.

How did you determine AQMD Annual Sales Volume? Direct sales/Distributor sales/Other? Please list or explain

If sold to a distributor or distributors, please include their name(s), address(es), and phone number(s):

² Base Stock Technology: N = Naphthenic, P = Paraffinic, S = Synthetic (PAO, PAG, DE, etc.), VB = Vegetable-based, SWD=Petroleum oil-free synthetic water dilutable fluid, O = Other. For blends, use base stock with highest concentration

³ Rule 1144 Category: VO = Vanishing Oil, MF = Metal Forming, MR = Metal Removal, PMR = Precision Metal Removal, MT = Metal Treating, MP = Metal Protecting,

⁴ VOC Content: Provide VOC content AS SOLD (same as listed on product label). For water-diluted materials, please list the lowest recommended dilution by % concentrate in water in the appropriate column



AQER - Administrative Information

- Company Name
- Address
- Responsible Party
 - Position
 - Phone number
 - E-mail address



AQER - Products

Line Number	Name of product manufacturer AS LISTED ON THE LABEL	Brand Name	Product Name
1	Slide	Slide-Quench	Quenching Oil 200 Series
2	Slide	Slide-Kool	Basic Soluble Oil
3	Slide	Slide-Anticorode	Rust Inhibitors 300 Series
4	Slide	Slide-Kut	Light duty Cutting
5	Slide	Slide-Kut	Heavy duty cutting
6	Slide	Slide-Draw	Stamping Lubricant
7	Slide	Slide-Hammer	Forging Compound



AQER – Product Grouping

Product Name	Number of Products Grouped ¹	Base Stock Technology ² :	Rule 1144 Category ³	VOC Content in g/L (before dilution with water) ⁴
Quenching Oil 200 Series	3	N	MT	40
Basic Soluble Oil	1	N	MR	10
Rust Inhibitors 300 Series	12	P	MP	300
Light duty Cutting	4	N	MF	55
Heavy duty cutting	1	N	PMR	125
Stamping Lubricant	14	N	VO	650
Forging Compound	1	S	MF	22

All grouped products are required to have same base stock technology, rule category and VOC content



AQER – Base Stock Technology

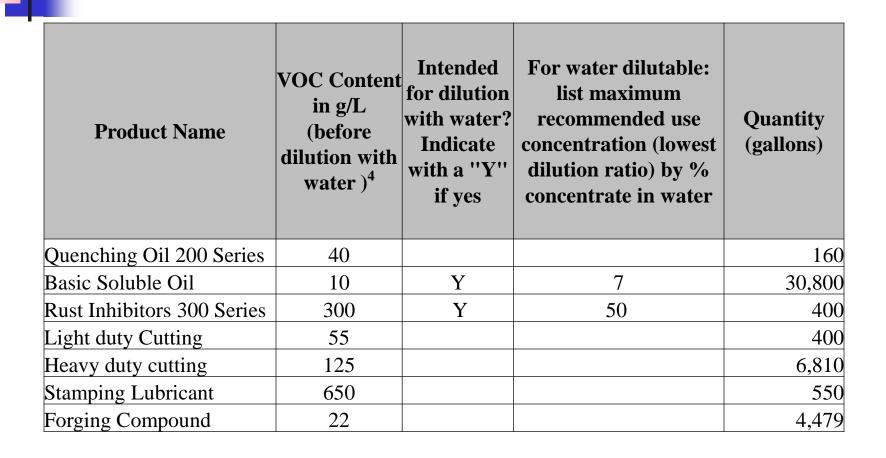
- Metalworking fluid technology type
 - Naphthenic
 - Paraffinic
 - Synthetic
 - Vegetable
 - Petroleum oil-free synthetic water-dilutable
 - Other
- For blends, use base stock with highest concentration



AQER – Rule 1144 Category

- Applicable rule category
 - Vanishing Oil
 - Metal forming
 - Metal Removal
 - Precision Metal Removal
 - Metal Treating
 - Metal Protecting
- For products used in multiple rule categories, list each category

AQER – Emission Data





Benefits/Costs

- Establishes VOC content test method for metalworking fluids
- 3.57 ton per day VOC emission reduction





Future Actions

- Compliance review
 - Verify labeling
 - Testing VOC content
- Explore feasibility of establishing lower VOC content limits for metalworking fluids

Reduce air pollution



Minimize burden on industry

Continue dialogue with interested stakeholders

Questions or Comments?



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mmorris@aqmd.gov



