

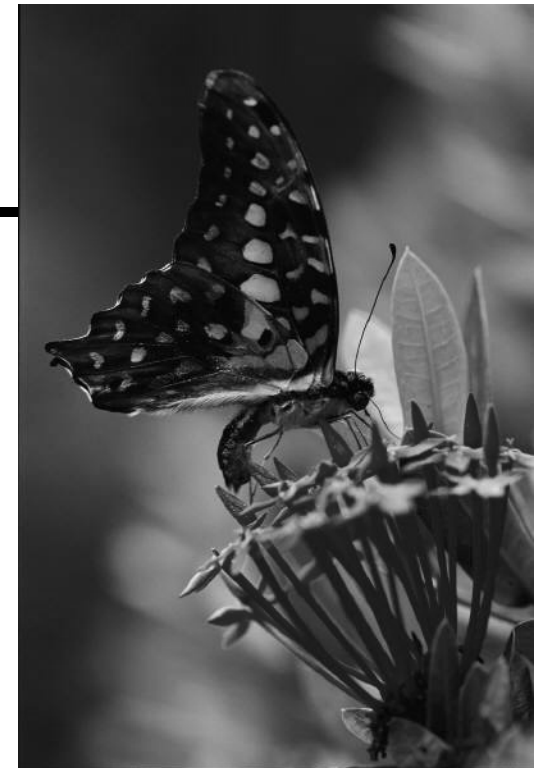
# **Clean Air Rules Update**

## **Carolinas Air Pollution Control Association Spring Conference**

**March 31, 2005**

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**Beverly H. Banister, Director  
Air, Pesticides and Toxics Management Division  
EPA, Region 4**



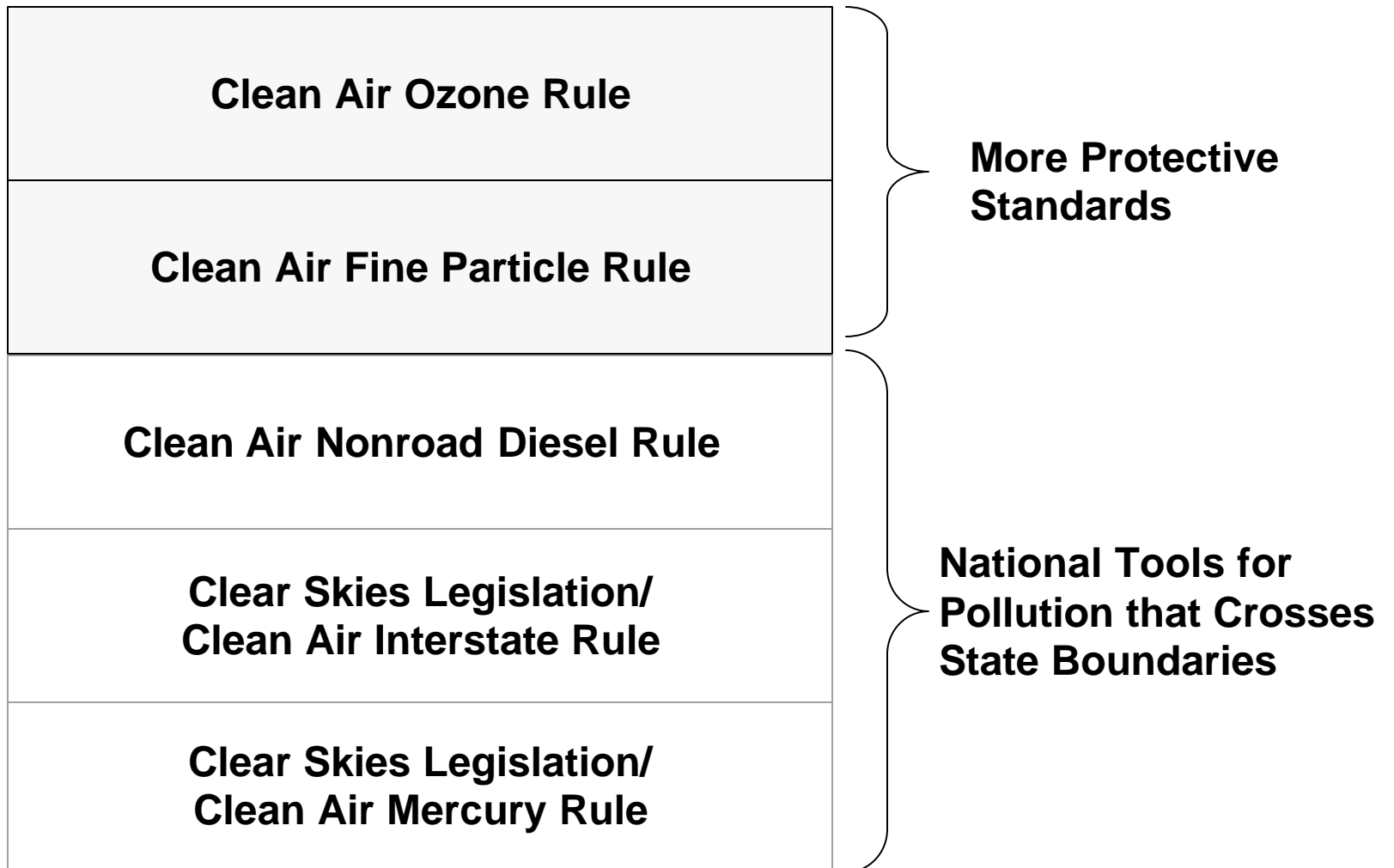
# National OAR Goals

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- Reducing health risks through suite of actions
- Implement the risk-based air toxics program
- Improve existing regulatory programs
- Work with partners
- Focus on Title V Priorities
- Carry out non-regulatory programs

# The Clean Air Rules

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# Clean Air Ozone Rule



# 8-Hour Ozone Implementation Program Timelines

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<b>Action</b>	<b>Date</b>
<b>EPA finalized Phase 1 implementation rule</b>	April 2004
<b>EPA finalized designations</b>	April 2004
<b>EPA finalizes Phase 2 implementation rule</b>	Spring 2005
<b>State plans due</b>	June 2007
<b>Attainment dates</b>	2007-2021

## **National Summary ... 8-hour Nonattainment Areas**

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- **474 counties designated nonattainment**
  - 432 whole counties
  - 42 partial counties
- **Approximately 159 million people live in these areas**

## **Southeastern Summary ... 8-hour Nonattainment Areas**

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- 22 nonattainment areas in 6 SE States
  - ~16 million population
- Comprised of 90 counties (79 full, 11 partial counties)
- 8 Early Action Compact areas in 4 states received deferred nonattainment effective dates

Wood-Burning Stoves



Power Plants



Heavy Duty Diesel Engines



Natural Sources



# Clean Air Fine Particle Rule

Cars and Trucks



Non-Road Vehicles



Forest Fires



Industrial Sources



# PM2.5 Designation and Implementation Schedule

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<b>Date</b>	<b>Action</b>
Feb. 2004	State designation recommendations due to EPA
June 29, 2004	EPA letters to States responding to PM2.5 designation recommendations
Dec. 17, 2004	EPA issued final designations
April 5, 2005	Effective date of designations
April 2008	PM2.5 state implementation plans due*

\* Per Omnibus Appropriations Bill of 2004, state implementation plans for regional haze program are due 3 years from promulgation of designations. EPA encourages States to coordinate the PM2.5 & haze plans & intends to review these plans together.

# National Summary...

## PM2.5 Areas

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- 225 counties designated nonattainment
  - 191 whole counties
  - 34 partial counties
  - 95 million live in these areas
- 7 unclassifiable counties
  - 1 million live in these areas

# Southeastern Summary...

## PM2.5 Areas

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- 14 nonattainment areas in 5 SE States
- 9.4 million population
- Comprised of 52 counties (44 full, 8 partial counties)
- 4 unclassifiable areas with 6 counties
  - Greenville, SC (3 counties); DeKalb County, AL; Etowah County, AL; McMinn County, TN
  - Will review 2002-2004 data for these areas

# PM2.5 Designations

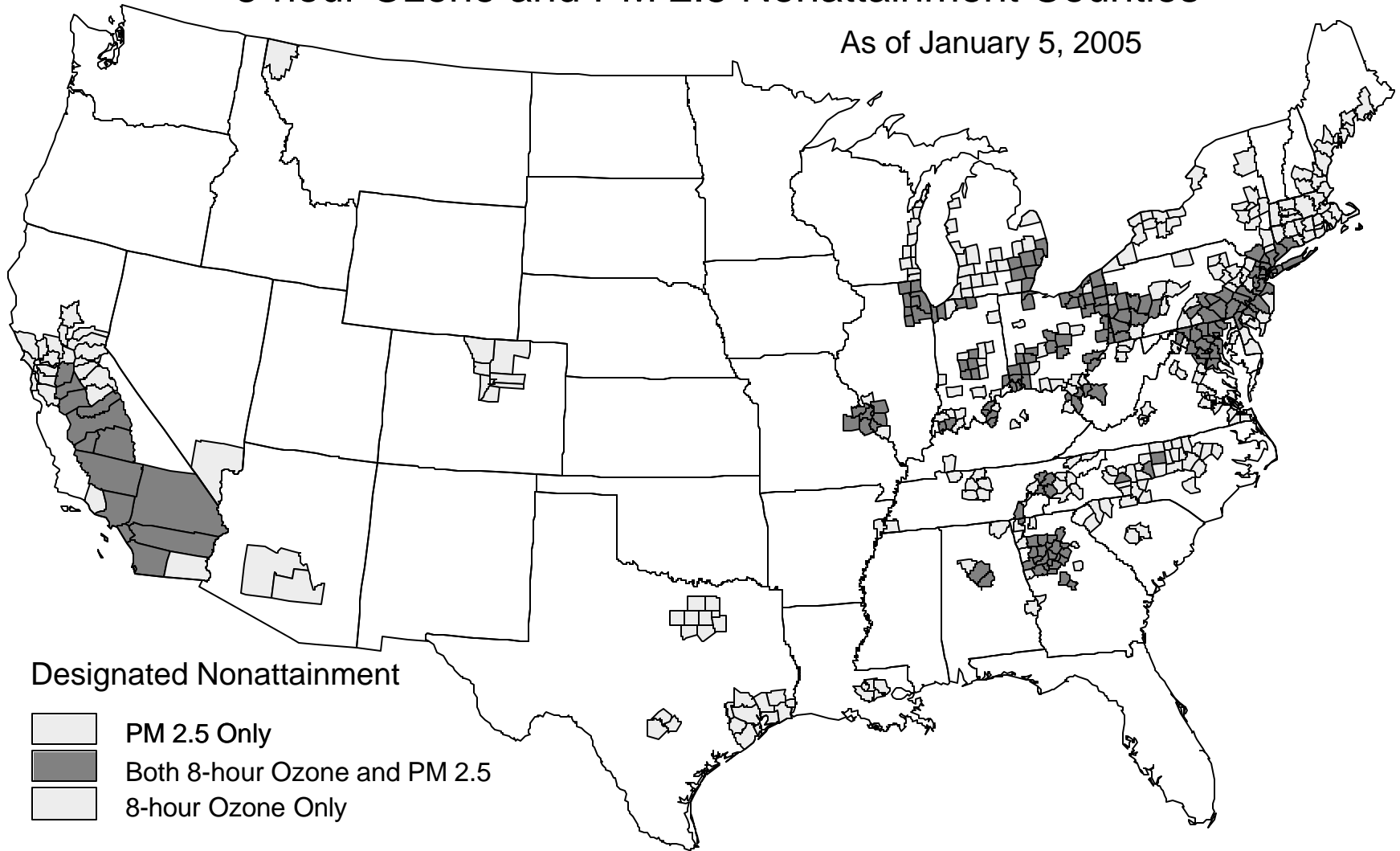
## 2004 Data and Next Steps...

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
- States submitted request to change the designation by 2/22/05  
Information submitted by KY, GA, & TN
  - Must include complete, quality-assured, certified air quality data for 2002-2004
  - Must show that the overall metro area does not have any violating monitors
- Notice issued by 4/5/05 to change designations for applicable areas
- If 2004 data results in nonattainment status, EPA will “evaluate the reasons for the violation and determine the appropriate course of action”

# 8-hour Ozone and PM 2.5 Nonattainment Counties

As of January 5, 2005



## Designated Nonattainment

-  PM 2.5 Only
-  Both 8-hour Ozone and PM 2.5
-  8-hour Ozone Only

Counties are shown as whole counties; however, in some cases, only part of the county was designated as nonattainment.

PM 2.5 nonattainment area designations will be effective by April 5, 2005.

Some PM 2.5 areas may have clean data based on 2002-2004 data and may be changed to attainment.



# Clean Air Interstate Rule

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# Clean Air Mercury Rule



# Clean Air Interstate Rule (CAIR)

Promulgated March 10, 2005

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- Reduces pollution in the Eastern U.S. by cutting
  - SO<sub>2</sub> emissions by over 70%
  - NO<sub>x</sub> by over 60%
- Places permanent caps on emissions
- Provides nearly \$2 billion in visibility benefits, significantly improving haze in eastern national parks such as the Great Smoky Mountains
- Helps decrease acid rain and its harmful effects

# CAIR Timeline

<b>CAIR Promulgated</b>	<b>March 10, 2005</b>
<b>State Implementation Plans Due</b>	<b>2006</b>
<b>Phase I Cap in Place for NOx</b>	<b>2009</b>
<b>Phase I Cap in Place for SO2</b>	<b>2010</b>
<b>Phase II Cap in Place for NOx and SO2</b>	<b>2015</b>

# States Covered by CAIR



- ozone and particles
- ozone only
- particles only
- not covered by CAIR

# CAIR Health Benefits

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- CAIR will result in the largest health benefits of any EPA air rule in more than a decade – almost \$100 billion per year.
- By 2015, it will prevent:
  - 17,000 premature mortalities;
  - 1.7 million lost work days;
  - 500,000 lost school days;
  - 22,000 non-fatal heart attack; and
  - 12,300 hospital admissions

# Clean Air Mercury Rule (CAMR)

Promulgated on March 15, 2005

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- First federal rule to permanently cap Hg emissions from new and existing coal-fired power plants
- Market-based cap-and-trade program that will reduce utility Hg emissions 2 phases:
  - Phase 1 cap reduces Hg from 48 to 38 tons **Due 2010**
    - Co-benefit Reduction from CAIR
  - Phase 2 cap is 15 tons **Due 2018**
- When fully implemented, CAMR will provide nearly a 70% reduction in Hg emissions

# **Additional Air Priorities**

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**Opacity**

**New Source Review**

**Enforcement and Compliance Assurance**

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# Opacity in Region 4

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- Opacity SIPs submitted in R4 from:
  - Alabama, Tennessee, and North Carolina
    - Opacity change requests vary by each state
  - AK Steel in Kentucky also requesting opacity changes
- Lawsuits filed by Sierra Club against industry in TN, AL, and GA
  - TN TVA's Sevier Plant
    - 2001 court ruled against Sierra Club
  - AL TVA's Colbert Plant
    - 9/04 court ruled against Sierra Club
  - GA GA Power's Wansley Plant
    - 12/04 Ruled in favor of Sierra Club

# Final NSR “Reform” Rule Revisions

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- Final NSR rule revisions December 31, 2002, remain in effect unless DC Circuit Court overturns or remands rules
  - Oral Argument was held January 25, 2005
  - Ruling expected this year
- Equipment Replacement Provision rules (October 27, 2003)
  - Rule stayed by the U.S. Court of Appeals for the District of Columbia Circuit

# NSR Reform

## Status of Region 4 State Rulemaking

SIP Revision submitted to EPA	KY
Public notice and comment held on state regulations	NC, SC, TN
Draft rule resulting from stakeholder comments preparing for public notice	GA, MS
Published Draft Assessment of Rule's Impact 12/04	FL
Evaluating Federal Rule	AL
Awaiting final State action	All Region 4 locals

# FY05 CAA National Enforcement Priorities

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- NSR/PSD high priority nationally to reduce criteria pollutants
- Coal-fired utilities continue to be a priority
- 3 new national sectors are identified by each region in FY05 Region 4 has selected the following sectors:
  - Cement
  - Iron and Steel
  - Pulp& Paper
- Inspections and investigations have begun on these new sectors in 1st qtr FY05

# Air Toxics/Maximum Achievable Control Technology (MACT) Priorities

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- Air toxics inspections, investigations and enforcement of the major sources are a national priority
- Each Region will be prioritizing 2 MACT sectors
- Region 4 has selected:
  - Secondary aluminum MACT which is being continued from FY04
  - Pharmaceuticals MACT

# Petroleum Refinery Initiative

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- Global Petroleum Refinery Consent Decrees have been concluded with 13 companies representing 57 refineries
- Settlements to date represent 51.3% of the domestic refining capacity
- 12 additional companies representing 40 refineries are negotiating with EPA under this initiative
- Current Environmental Emission Reductions
  - 50,930 Tons per year NO<sub>x</sub>
  - 118,423 Tons per year SO<sub>2</sub>
  - Reductions of benzene and VOCs
- Emission reductions will require \$4.4 worth of pollution controls

# Petroleum Refineries

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- Region 4 has inspected and investigated all 12 petroleum refineries in the region
- Current Status:
  - Monitoring Consent Decrees for Marathon Ashland; Chevron; Citgo; and Ergon.
  - Region 4 is supporting negotiations with other refineries participating in the national initiative
  - Pursuing conventional enforcement as appropriate to refineries not participating in the national initiative
- GA, AL, and MS have joined Region 4 in the refinery cases

# Utility Initiative

## National Emissions Reductions

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- Nine settlements to date with power plant operators focused on securing major reductions from coal-fired power plants
- Collectively these account for 70% of SO<sub>2</sub> and 30% NO<sub>x</sub> from all stationary sources in the nation
- The combined effect of these nine settlements will be to reduce emissions of harmful pollutants by over 878,067 tons each year (620,500 tons SO<sub>2</sub> and 257,567 tons NO<sub>x</sub>)
- Emissions reductions will require \$5.5 billion worth of pollution controls

# Coal Fired Utility Emission Reductions in Region 4

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- **Tampa Electric Company** is achieving significant emission reductions at two plants
- **Gannon Station**
  - Repowered with natural gas in 2003 resulting in emission reductions of 29,186 tpy NOx and 54,496 tpy of SO2
  - PM reductions
- **Big Bend Station**
  - Scrubber upgrades to date have resulted in a reduction of 95,614 tons (88%)
  - NOx reductions to date are approximately 3,500 tpy; projected reductions by 2010 are estimated at 24,000 tpy (80%)
  - PM reductions

# South Carolina Public Service Authority (Santee Cooper)

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- Settlement will result in 87.5% of power generated by the Santee Cooper system to be subject to pollution controls
- Declining reductions system-wide required under the settlement with EPA/DOJ
  - 37,500 tons per year SO<sub>2</sub> by 2012
  - 29,500 tons per year of NO<sub>x</sub> 2008
  - 650 tons per year particulate

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# Questions

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