



The Growing Discussion on Updating the Clean Air

Impacts and Opportunities for the
Houston Community

Jed Anderson, AWMA, March 2013



Who is More Likely to Hit a 90 MPH Fastball?



VS.



■ Why Update the Clean Air act?

- System getting huge
- System getting more complex
- Dollars to manage going down
- Work going up
- System relying ultimately on States to achieve attainment—yet the ability of States to achieve attainment is decreasing
- New emissions measurement technologies are beginning to antiquate the current system that largely had to be built around emissions estimating techniques

**Roadmap of
Where We are
Headed Today**

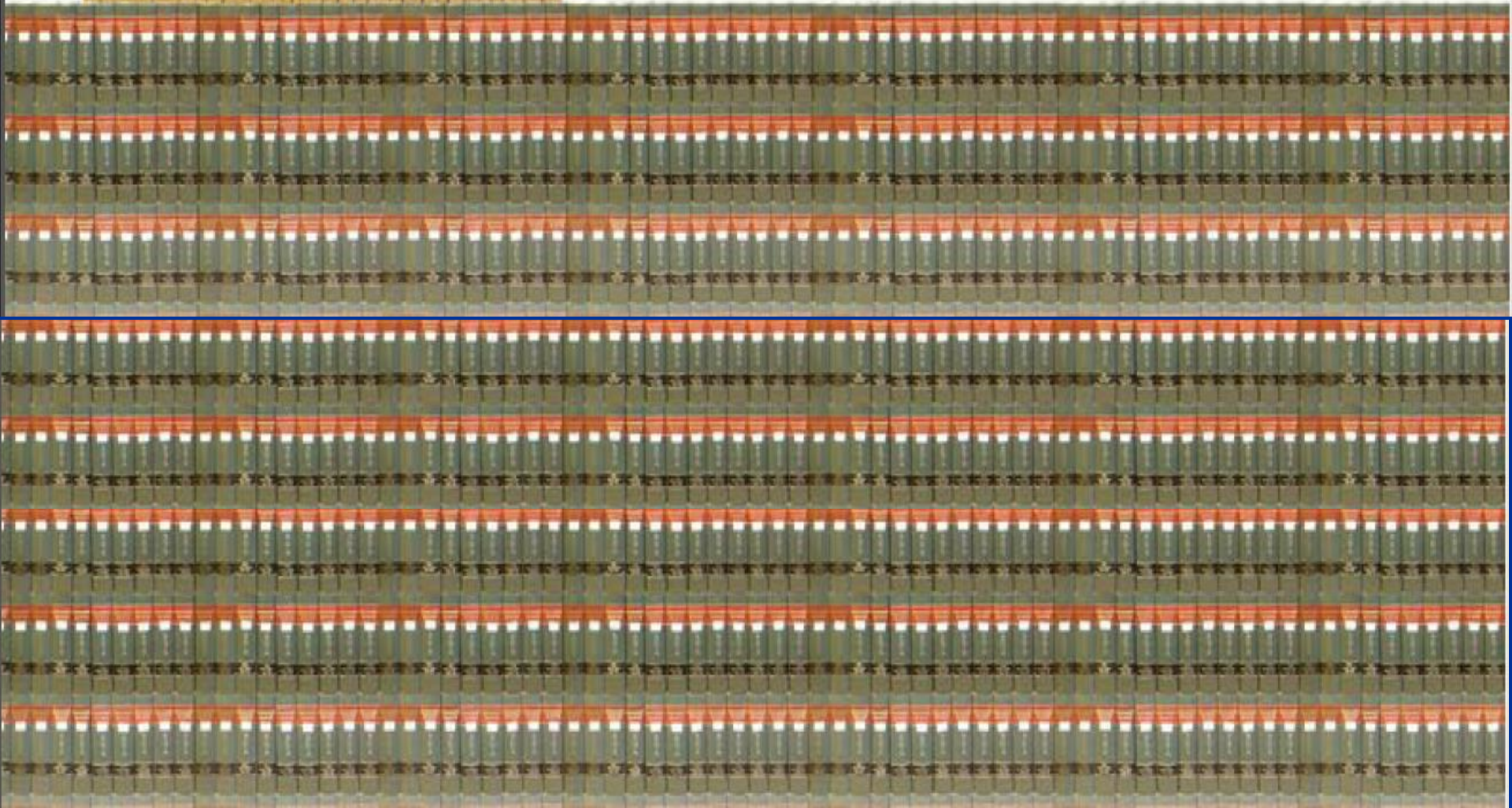
■ Recent Developments and Advances on Clean Air Act Reform

- Breaking the Log Jam
- Energy & Commerce Committee - “Clean Air Act Forums”
- Canadian and British Reforming Clean Air Acts
- ECOS, TPPF, SIP Transformation Workgroup, and Other Efforts

■ Houston’s Ability to Help Drive Clean Air Act Reform



The federal environmental statutes that Congress has addressed to EPA run to more than 2,700 pages in the two large, maroon-colored United States code volumes. The legally binding regulations issued by EPA to implement these statutes fill the 31 ocre-colored volumes of the Code of Federal Regulations. The guidance and other documents issued by EPA to explain or interpret its regulations fill around one million pages and are represented by the 1,250 grey-colored loose-leaf volumes. This does not include the millions of pages of State and local statutes, rules, and guidance that implement the millions of pages of Federal statutes, rules, and guidance.



COMPLEXITY OF THE CURRENT SYSTEM

Ex./ Regulations like those found in Part 63 are extremely complex and difficult for the public, regulators, and companies to understand.

LEGISLATIVE / EXECUTIVE / JUDICIAL / HELP / ABOUT

A-Z RESOURCE LIST / FIND A FEDERAL DEPOSITORY LIBRARY / BUY PUBLICATIONS

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(3) For each affected source complying with 63.802(a)(1) in accordance with 63.804(a)(3), compliance is demonstrated if: (i) The installation of a permanent total enclosure is demonstrated ($N=1$); (ii) The value of F is determined from Equation (5); and (iii) The product of $(FN)(100)$ yields a value (R) such that the value of E_{ac} in Equation 2 is no greater than 1.0.

(4) For each new affected source complying with 63.802(b)(1) in accordance with 63.804(d)(3), compliance is demonstrated if: (i) The installation of a permanent total enclosure is demonstrated ($N = 1$); (ii) The value of F is determined from Equation (5); and (iii) The product of $(FN)(100)$ yields a value (R) such that the value of E_{ac} in Equation 4 is no greater than 0.8.



“I hate that each sector has 17 to 20 rules that govern each piece of equipment and you've got to be a neuroscientist to figure it out”

--Gina McCarthy, U.S. EPA Assistant Administrator for Air



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RELATED RESOURCES

- [Code of Federal Regulations](#)
- [Federal Register](#)
- [List of CFR Sections Affected](#)

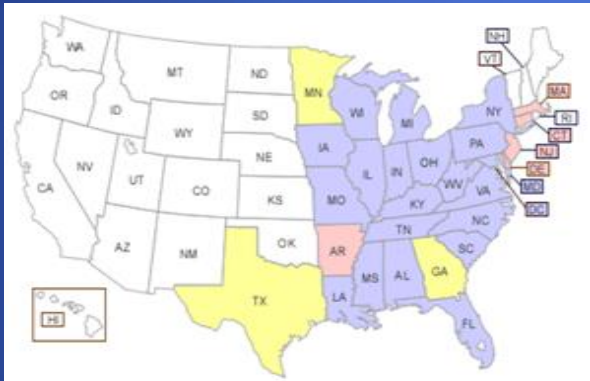
Ultimate Responsibility for Attaining the NAAQS Currently Rests with the States

- **“Each State shall have the **primary responsibility** for assuring air quality within the entire geographic area comprising such state by submitting an implementation plan for such State which will specify the manner in which [the NAAQS] will be achieved and maintained . . .”**
-----Clean Air Act, 42 U.S.C. § 7407(a)
- **“Every State knows precisely what numerical goal its SIP must achieve. If a State misses that clear numerical target, it has only itself to blame.”**
-----D.C. Circuit Court of Appeals, CSAPR Ruling
- **“It is the States that the Act assigns initial and primary responsibility for deciding what emissions reductions will be required from which sources.”**
-----U.S. Supreme Court, American Trucking
- **If a State fails to address pollution in the air above its State it will be **sanctioned** by the Federal government.**
-----42 U.S.C. § 7509 and Section 185 of the CAA

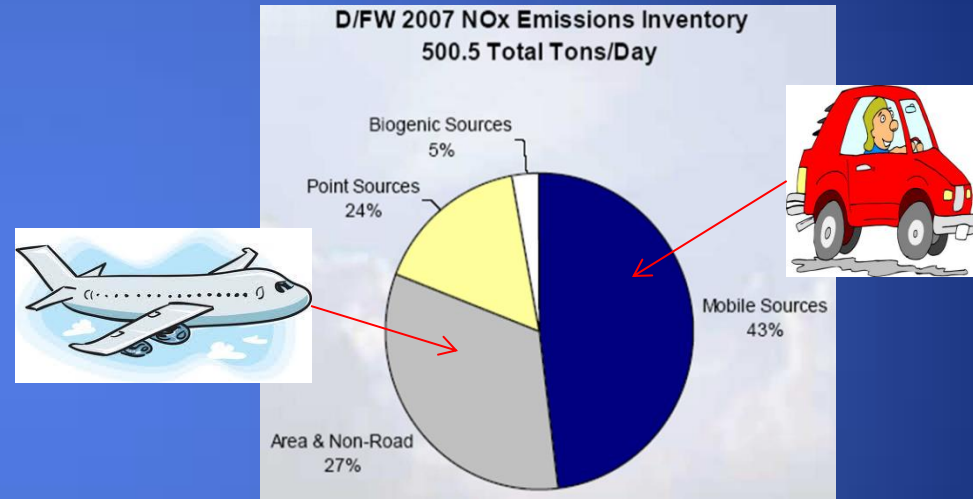
“It’s A Small World After All”: More and More Emissions are Outside Local Control

Interstate Pollutant Transport

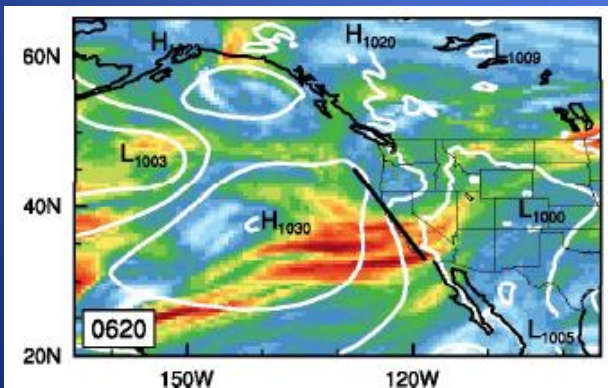
Ex. CAIR/CSAPR



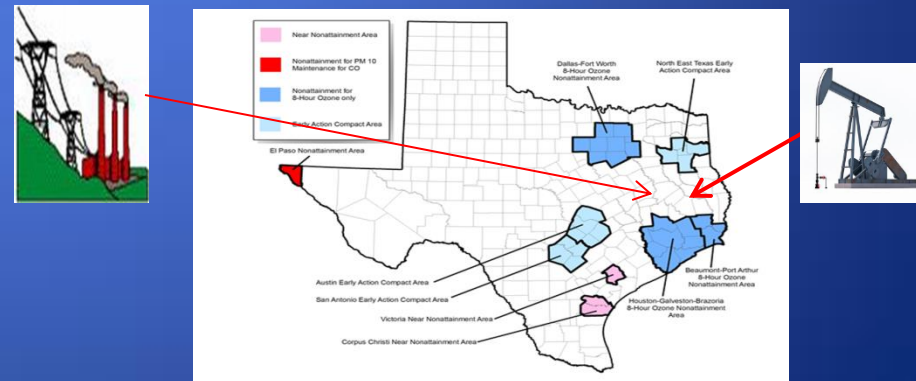
Federally Controlled Mobile Sources



International Pollutant Transport

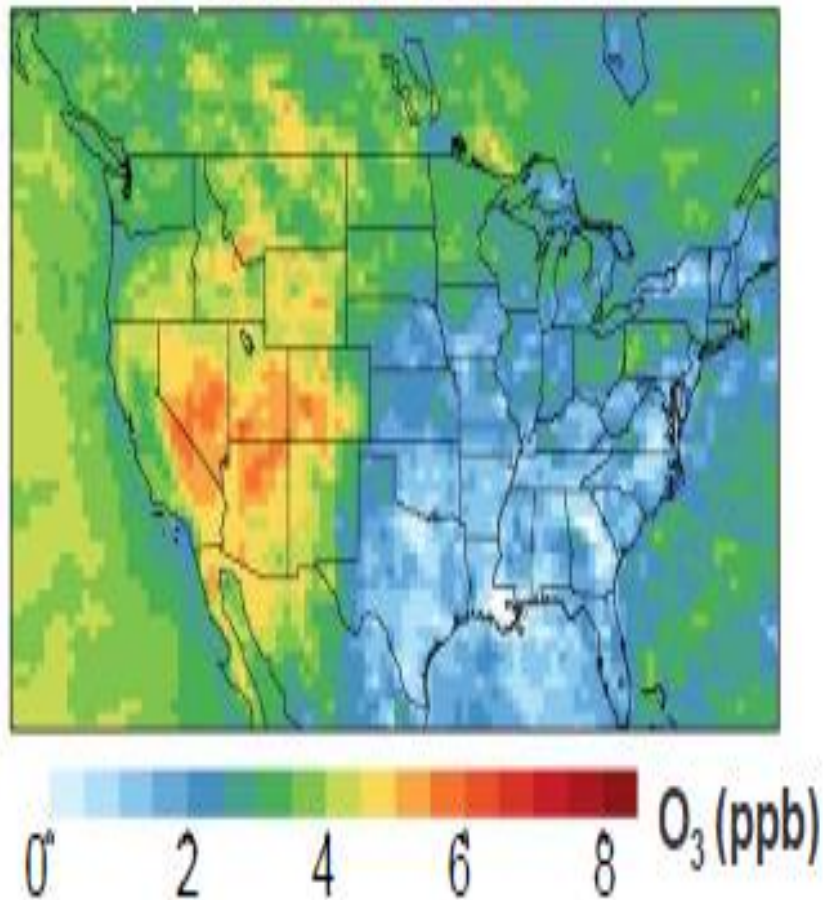


Intrastate Pollutant Transport

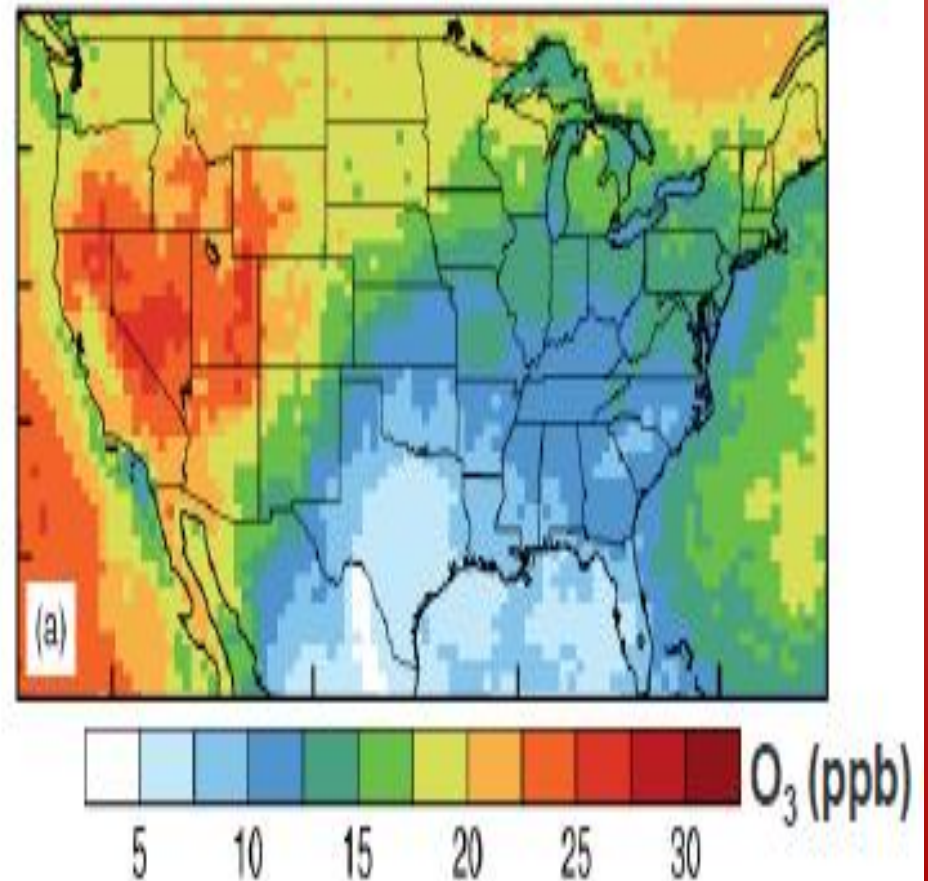


Newly Discovered Impacts of Asian and Stratospheric Ozone Pollution Impacts on the U.S.

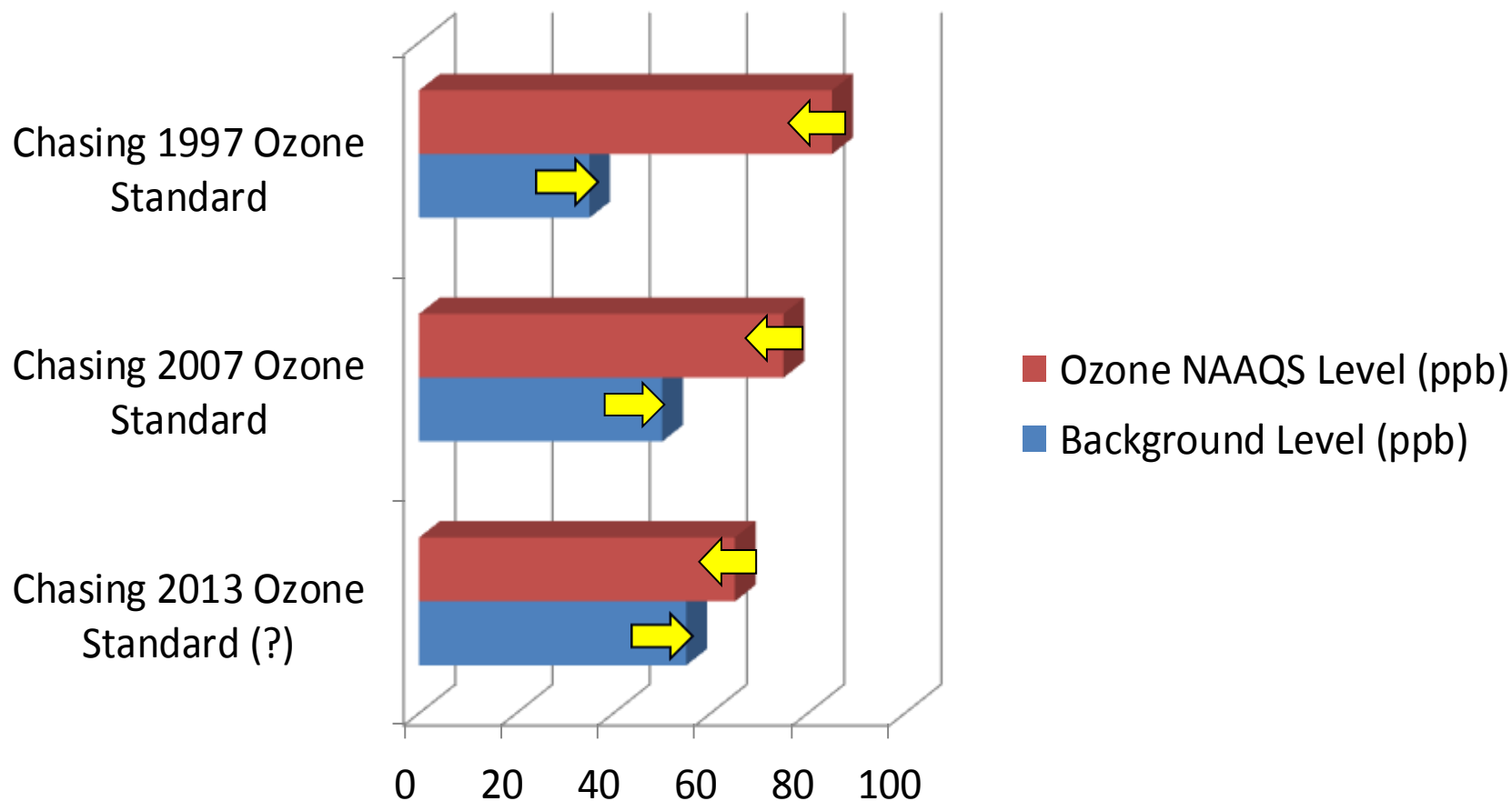
Asian: May-June 2010



Stratospheric (O3S): April-June 2010



Difference Between Attainment and Nonattainment Areas is Disappearing—Along with the Corresponding Effectiveness of Making Such Geographical Distinctions



Historic System Based Largely on Estimating Emissions Due to the Historical Inability to Measure Most Emissions Sources

Emissions Factors in Reporting

All Reporting



Reporting using Indirect Methods

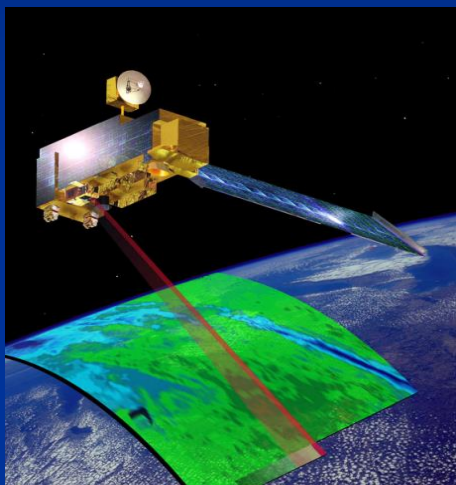


U.S. GAO, AIR POLLUTION: EPA SHOULD IMPROVE OVERSIGHT OF EMISSIONS REPORTING BY LARGE FACILITIES (2001)

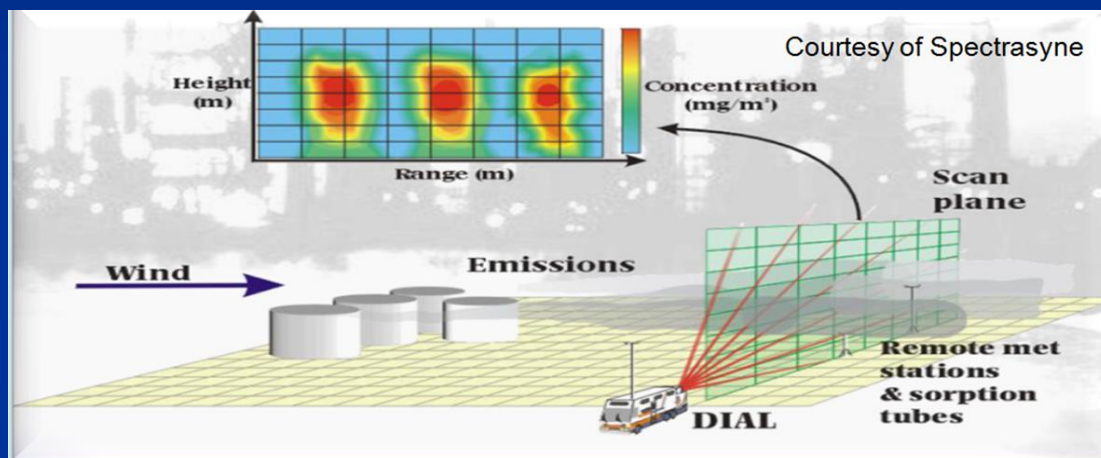
“Emission factors in AP-42 are neither EPA-recommended emission limits ... nor standards.... Use of these factors as source-specific permit limits and/or as emission regulation compliance determinations is not recommended by EPA.” ----U.S. EPA

Measurement Tools are Advancing that could Simplify, Improve, and Replace Current System

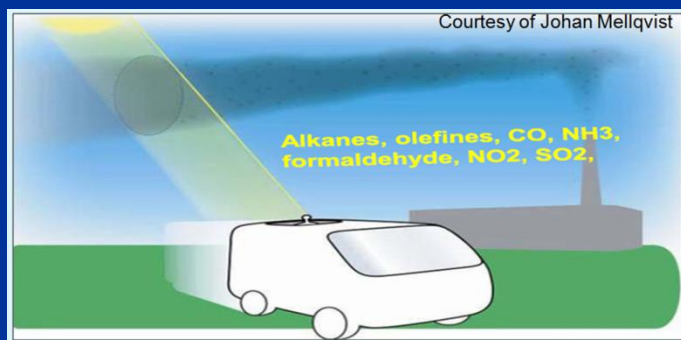
Satellite Monitoring



DIAL System



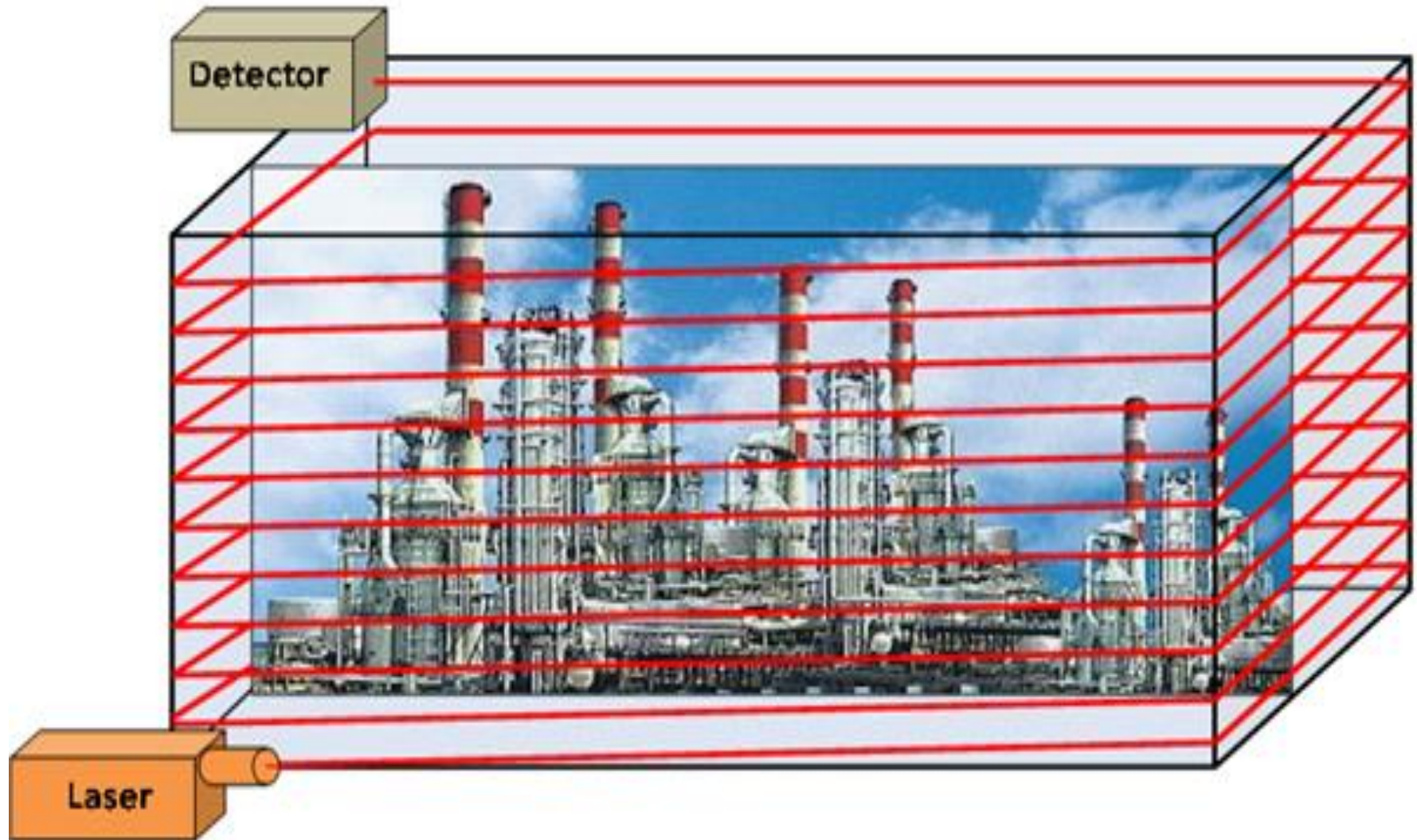
SOF System




Fence-line Monitoring



The Future?





A company could do whatever it wanted
whenever it wanted within its facility so long as
the limits established by the monitoring/remote
sensing bubble were not exceeded

Imagine seeing this webpage as an environmental manager, regulatory agency, or a citizen instead of sifting through millions of pages of regulatory materials to determine if you or someone else is in compliance?

Hourly Emissions from Company ABC's Facility You are Monitoring Today

Pollutant	Amount Emitted	Amount Available to Emit
NOx	4.2	2.8
Mercury	2.5	4.5
PM2.5	3.5	1.8
Lead	4.5	2.8

Legend:
■ Amount Available to Emit (Red)
■ Amount Emitted (Green)

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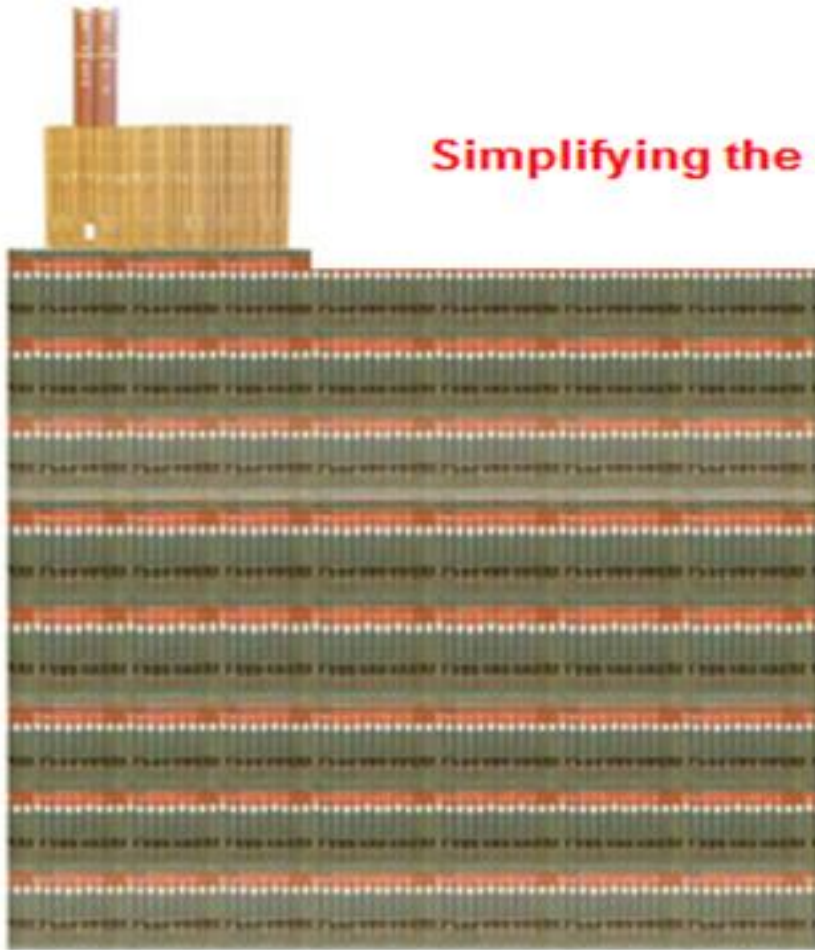
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Simplifying the Air Quality Regulatory System



“Any intelligent fool can make things bigger, more complex, and more violent. It takes a touch of genius -- and a lot of courage -- to move in the opposite direction.”

-----E.F Schumacher

The Future Clean Air Act for Stationary Sources

PSD Program

Title V Program

NNSR Program

NSPS Program

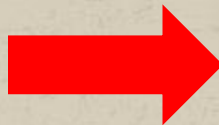
MACT Program

Regional Haze Program

Acid Rain Program

CAIR/CSAPR Program

SIP requirements

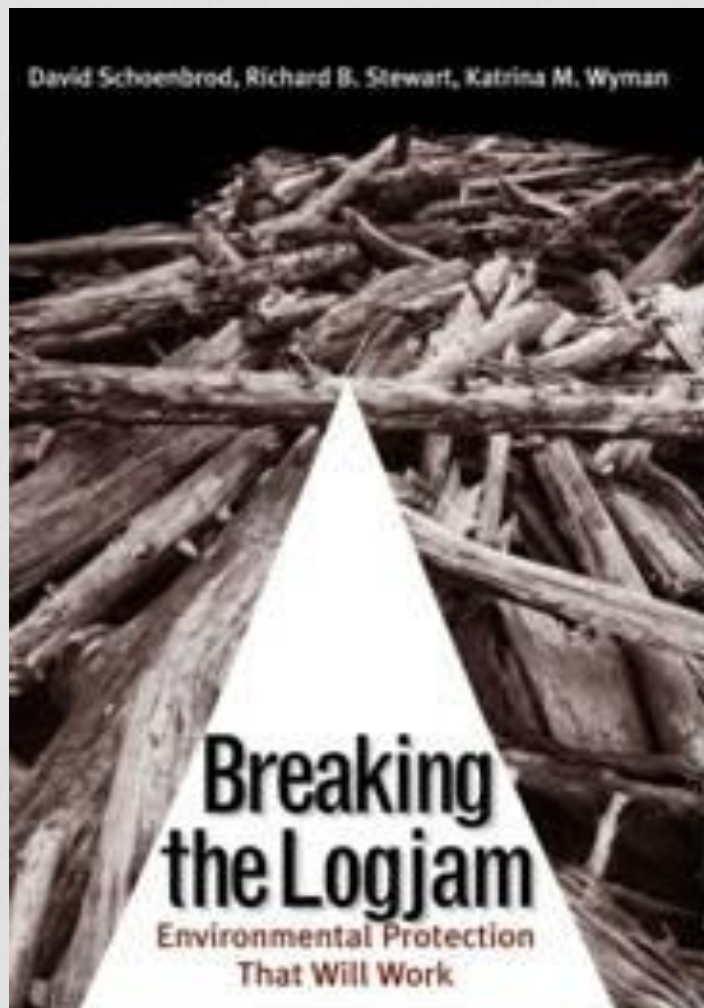


Multi-Pollutant Market-Based
System Based on Real-Time
Source Monitoring

Approximately 50 to 75% of Clean Air Act regulations would no longer be needed.

EFFORTS TO REFORM THE CLEAN AIR ACT

(EX. BREAKINGTHELOGJAM)



"Our environmental laws badly need rethinking. This book makes that case and then charts a course for action. A straightforward, comprehensive and persuasive case for reform." —William D. Ruckelshaus, Former EPA Administrator

"The old environmental laws and approaches have run their course, and we urgently need an intensive period of environmental law reform. That's the message of this insightful, stimulating book. . . . A must read." —James Gustave Speth, Member and Chairman of the White House Council on Environmental Quality

House Energy & Commerce Committee

- **State of Arkansas:** “The SIP process is **badly in need of reform**. The present process is overly cumbersome, slow and bureaucratic.”
- **State of Ohio:** “The State Implementation Plan process has become **burdensome and overly complicated**.”
- **State of Texas:** “While states are responsible for achieving the NAAQS through the SIP process, the **authority to achieve the ozone NAAQS arguably now lies with the federal government**. The nonalignment between responsibility and authority is a primary issue that needs to be considered in reform of the Clean Air Act.”
- **State of Colorado:** “SIPs and other demonstration packages from states are **only getting more voluminous and complex, often without concurrent air quality benefits**.”
- **San Joaquin Valley Air Pollution Control District:** “The current regiment [the NAAQS/SIP Process] leads to a **great deal of redundancy, overlap, and confusion**.”
- **South Coast Air Quality Management District:** “The current Clean Air Act places all the responsibility on the states, but then deprives them of the needed authority through preemption provisions. This is not a fair situation. **If USEPA has the sole authority, it must also have the responsibility**.”

Canada and Britain Updating Clean Air Acts



- The new **Canadian** system (2012) is called the “Canadian Air Quality Management System” (AQMS).
- System “zeros-out” transboundary air pollution blowing into a province from another country or from another province. [**Under Canada’s new system the provinces are now just responsible for pollution they can control**]
- According to Canada the new system is “designed to allow the **“best placed” government to act.**”



- Clean Air Act finding from an initial meeting of the **United Kingdom’s** Department for Environment, Food, and Rural Affairs:
 - “The overview from the meeting [. . .] was that the Act was **completely outdated** and **needed a full overhaul**. **All the terminology needed clarifying or modernizing”**
- UK’s Clean Air Act is 3 years newer than ours!
- Initial consultation due in May of 2013

An aerial photograph of an industrial facility, likely a refinery or chemical plant, at dusk. The facility features several large white storage tanks, a red tanker ship docked at a pier, and various industrial structures. A river flows through the center of the facility. In the background, a city skyline is visible under a twilight sky with orange and blue hues.

Houston, You, and the Clean Air Act

- What community in America is in a better position than Houston to help lead reforms to the Clean Air Act?
- What community is likely to be most affected by reforms to the Clean Air Act?
- How many people in this community understand how the Clean Air Act works better than you do?

Still Think You are Too Small and Insignificant to Reform
the Clean Air Act? . . . Think Again.



Should We Change the Clean Air Act?

- ❖ "I cannot say whether things will get better if we change; what I can say is they must change if they are to get better." - Georg C. Lichtenberg
- ❖ "All conservatism is based upon the idea that if you leave things alone you leave them as they are. But you do not. If you leave a thing alone you leave it to a torrent of change." - G. K. Chesterton
- ❖ "The dogmas of the quiet past are inadequate to the stormy present. The occasion is piled high with difficulty, and we must rise with the occasion. As our case is new, so we must think anew and act anew." - Abraham Lincoln
- ❖ "If you have always done it that way, it is probably wrong," - Charles Kettering
- ❖ "I am not an advocate for frequent changes in laws and constitutions, but laws and institutions must go hand in hand with the progress of the human mind. As that becomes more developed, more enlightened, as new discoveries are made, new truths discovered and manners and opinions change, with the change of circumstances, institutions must advance also to keep pace with the times. We might as well require a man to wear still the coat which fitted him when a boy as civilized society to remain ever under the regimen of their barbarous ancestors." - Thomas Jefferson