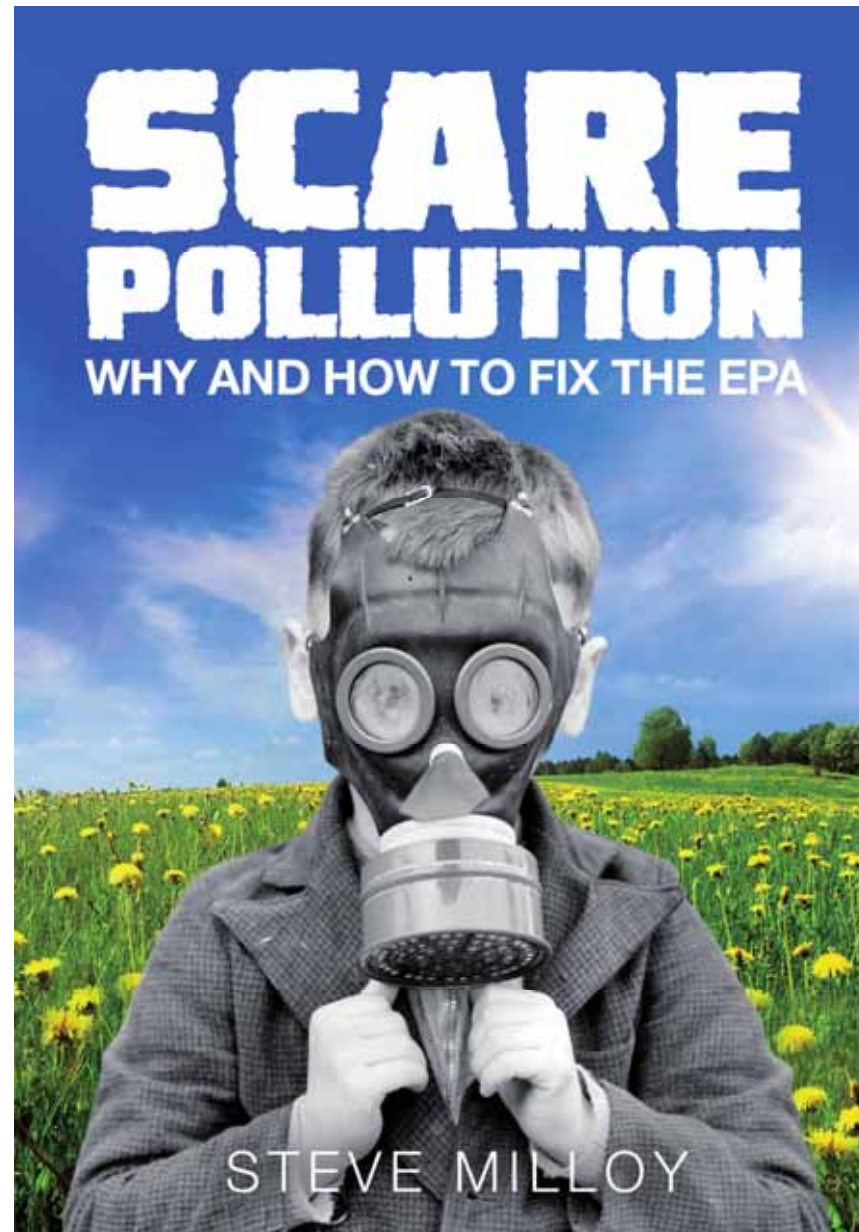


# Beyond Scare

## Pollution:


*What Happened to Coal  
and How to Stop It  
From Happening Again*

By Steve Milloy  
October 26, 2017  
The Coal Institute  
Fall Education and  
Engineering Seminar



# Goals

- 1. To understand the Obama EPA science fraud that devastated the coal industry.**
- 2. To understand how to prevent #1 from happening again.**

A movie poster for 'Monty Python and the Holy Grail'. The background is a bright blue sky with a few white clouds. In the center, a large, golden chalice is held by a hand. Inside the chalice, several characters from the film are depicted, including a man in a white tunic with a sun emblem, a man in a chainmail surcoat, and a man in a grey tunic. Behind them is a purple castle with a tall tower and several flags flying. The title 'MONTY PYTHON and the Holy Grail' is written in a golden, serif font on the left side of the poster.

MONTY PYTHON  
and the  
Holy Grail



© 1974 National Film Trustee Company Limited. All Rights Reserved. Python (Monty) Pictures, Ltd.  
© 2006 Layout and Design Sony Pictures Home Entertainment Inc. All Rights Reserved.



# Arthur's Holy Grail



Happiness  
Eternal Life  
Infinite Sustenance

# Obama EPA's Holy Grail



# 2008 Obama Campaign Promise



# Obama EPA's Holy Grail: Killer PM<sub>2.5</sub>

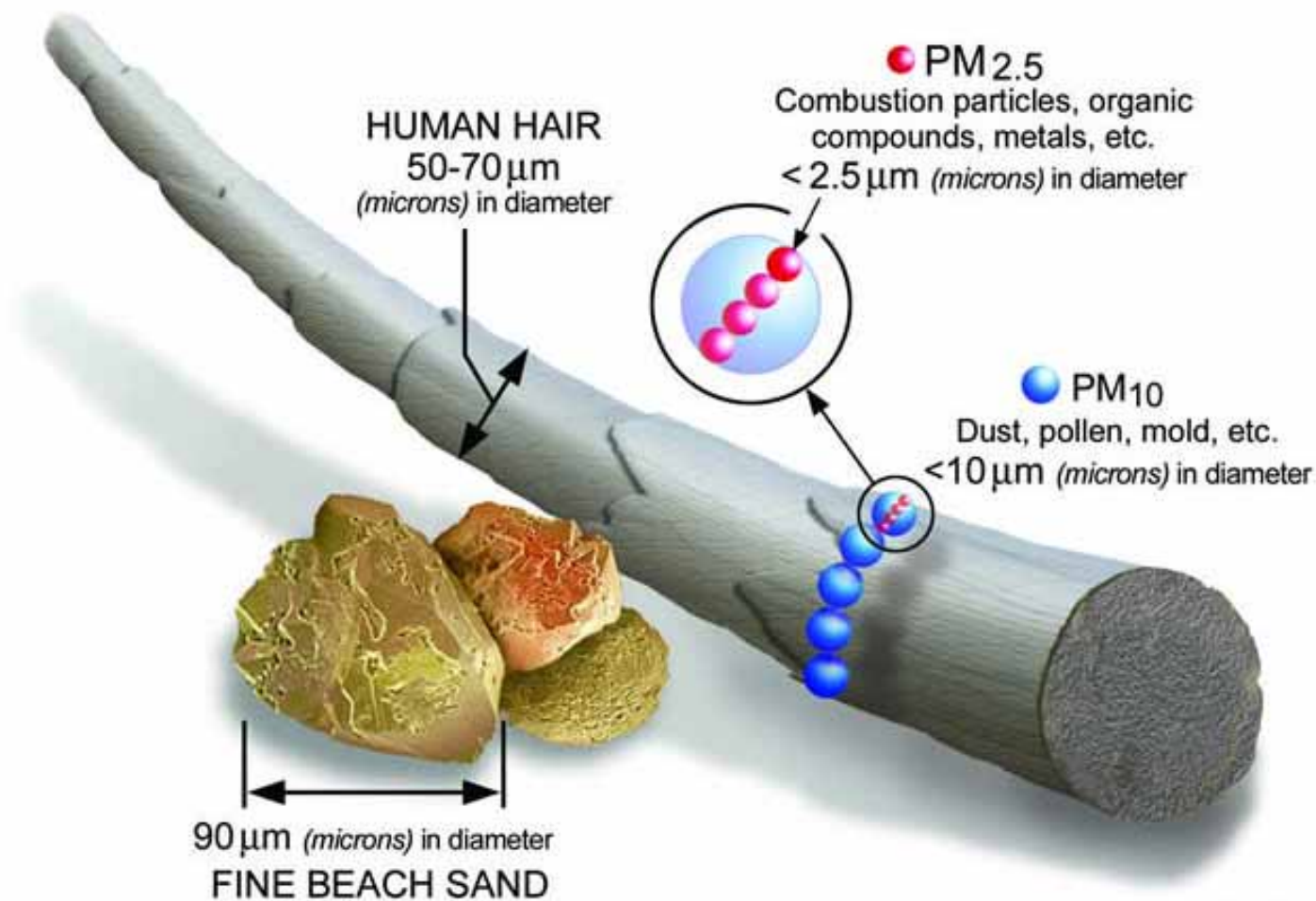


Image courtesy of the U.S. EPA



# Sources of PM<sub>2.5</sub> – Natural





# Sources of PM<sub>2.5</sub> - Manmade



# Key to Arthurian Holy Grail: Faith



# Faith Required for PM<sub>2.5</sub> Holy Grail

1. Any inhalation can kill.
2. Death can occur within hours... or decades... whichever comes first.
3. Kills 570,000 Americans every year.

# ~~Food~~ Fraud for Thought:

Claimed Death Tolls: Blue Sky Air vs. Smoking



570,000 Deaths  
Annually



440,000 Deaths  
Annually



# Real-World Products of EPA's Magical PM<sub>2.5</sub>

- Ever more stringent PM<sub>2.5</sub> National Ambient Air Quality Standards (NAAQS)
- War-on-coal rules
  - Cross-State Air Pollution Rule
  - Mercury Air Transport Standard
    - Estimated CSAPR/MATS benefits from pretending to save 34,000 lives/year (\$9 million per life) ~ \$380 billion/year
    - Coal industry only worth \$60+ billion to GDP
  - Clean Power Plan
    - PM<sub>2.5</sub>, not CO<sub>2</sub>/methane key emission controlled
- Ozone NAAQS
  - 90% of alleged benefits from PM<sub>2.5</sub>
- 'Social Cost of Carbon'

# **Real World Consequences of EPA's PM<sub>2.5</sub> Regulations**

- **Near total destruction of U.S. coal industry**
  - Largest companies in bankruptcy
  - Industry market value cut 94% from 2011-2016
  - Thousands of coal mining jobs lost
  - Many thousands more support jobs lost
  - Communities devastated
  - Investments, pensions, benefits, health care lost/cut
  - Utilities run away from coal

# Myth!

## Fracking More a Factor than Obama EPA

- Study: 83% of loss in coal production due to regulation
- Gas glut only made gas competitive with coal
- Regulation made coal expensive/politically incorrect for utilities
- Environment/public health not improved by reduced coal production
- Public health hurt by lost coal production
  - Unemployment/Poverty ≠ Health/Clean Environment

# Milloy PM<sub>2.5</sub> Quest Begins in 1997

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## THE WALL STREET JOURNAL.

EDIT PAGE FEATURES

### **The EPA's Clean Air-ogance**

*By Steven J. Milloy and Michael Gough*

Updated Jan. 7, 1997 12:01 a.m. ET



# Quest Amps Up in 2011

## Show us the **bodies**, EPA

*Green agency uses phony death statistics to justify job-killing rules*

By Steve Milloy

**T**he House will soon vote to (slightly) rein in the Obama Environmental Protection Agency. But this much-needed baby step by Congress will only happen if Republicans have the knowledge

tory distress, by implication from air pollution.

But like the EPA's 17,000-lives-saved statistical fabrication, the ad is a fake.

If you look closely at the girl, as opposed to what is being done to her, she is, in fact, calmly sitting up in bed and not in any respiratory distress whatsoever. The ad is a total put-on. Moreover, asthma attacks aren't treated with chest-compression devices, which are in-

sands of jobs and cost our crippled economy countless billions of dollars, Republicans must demand some sort of proof that the alleged harms are indeed happening.

The EPA says air pollution kills tens of thousands of people annually. This is on a par with traffic accident fatalities. While we can identify traffic accident victims, air pollution victims are unknown, unidentified and as far as anyone can tell, figments of EPA's statisti-



Obamacare's raid on the medicine cabinet

Political appointees, not doctors, will choose medications

By John R. Graham

Prescription medicine is a vast, unregulated market...

The industry's political appointees are a special interest...

Medical prices have increased after years of a government...

Obamacare's attack on the pharmaceutical industry...

Obamacare's attack on the pharmaceutical industry...

Obamacare's attack on the pharmaceutical industry...



Although the industry is a vast, unregulated market...

The industry's political appointees are a special interest...

Medical prices have increased after years of a government...

Obamacare's attack on the pharmaceutical industry...

Obamacare's attack on the pharmaceutical industry...

Show Us the Bodies, EPA
By Steve Milloy
Washington Times, July 21, 2011

'Green agency uses phony death statistics to justify job-killing rules.'

Show us the bodies, EPA
Green agency uses phony death statistics to justify job-killing rules

By Steve Milloy

The House will vote today to strip the EPA of its authority...

The House appropriations committee...

Environmentalists have been...

The EPA's regulatory process...

The EPA's regulatory process...

The EPA's regulatory process...

ing. However, by highlighting the...

The EPA's regulatory process...

The EPA's regulatory process...

The EPA's regulatory process...

The EPA's regulatory process...

The EPA's regulatory process...

While that may seem to be a...

John R. Graham is the director of Health Care Freedom...

**‘Bring out yer dead...’**





**Show us the bodies, EPA!**





**July 26, 2011**

**Kucinich to EPA Witness:**

*"I'd like to give you a chance to respond to [Milloy's] op-ed."*



# Obama EPA Witness to Kucinich:

PM<sub>2.5</sub>-Kills Claim "... based on peer-reviewed science"



REGULATING AIR & WATER POLLUTION

**ROBERT PERCIASEPE**  
Environmental Protection Agency (EPA)  
Deputy Administrator

Deputy Administrator  
**C-SPAN3**  
c-span.org  
Perciasepe

# Translation of Obama EPA Response

“I FART IN YOUR GENERAL DIRECTION!”

- MONTY PYTHON AND THE HOLY GRAIL

sheknows

A still from the movie Monty Python and the Holy Grail. A knight in a stone tower has his hands behind his head. The scene is set against a plain, light-colored sky. The knight is wearing a dark tunic and a hood. The stone tower is made of large, dark grey blocks. The overall tone is humorous and satirical.

# 'Peer'... or 'Pal'... Review at EPA?

- Clean Air Science Advisory Committee (CASAC) Particulate Matter Committee
  - External science advisors
  - Committee works on consensus (i.e., non-scientific) basis
- 1996 – First PM<sub>2.5</sub> NAAQS Proposal
  - 14 of 20 members **NOT EPA** grantees
  - Disagreed w/EPA, concluding PM<sub>2.5</sub> not associated with death
- 2017
  - 24 of 26 members (92%) **ARE EPA** grantees
  - Grants worth \$200+ million
  - Reviewing their own work
    - E.g., Harvard's Doug Dockery & Harvard Six City Study
  - No review: Panel simply assumes PM<sub>2.5</sub> kills
- **QED: EPA 'Peer Review' = 'Farting in Your General Direction'**

# House-Passed EPA SAB Reform Act

115TH CONGRESS  
1ST SESSION

**H. R. 1431**

---

IN THE SENATE OF THE UNITED STATES

MARCH 30, 2017

Received; read twice and referred to the Committee on Environment and  
Public Works

---

**AN ACT**

To amend the Environmental Research, Development, and  
Demonstration Authorization Act of 1978 to provide for  
Scientific Advisory Board member qualifications, public  
participation, and for other purposes.

# Obama EPA Avoided Real Peer Review

- EPA PM<sub>2.5</sub> conclusions depend on two lines of study (Harvard Six City & Pope-ACS II)
- EPA refused independent review of data
  - 1994, CASAC
  - 1996, House Commerce Committee
  - 2011
    - House Science Committee
    - House subpoena
    - Secret Science/HONEST Act bills



# HONEST Act

115<sup>TH</sup> CONGRESS  
1<sup>ST</sup> SESSION

**H. R. 1430**

---

IN THE SENATE OF THE UNITED STATES

MARCH 30, 2017

Received; read twice and referred to the Committee on Environment and  
Public Works

---

## **AN ACT**

To prohibit the Environmental Protection Agency from proposing, finalizing, or disseminating regulations or assessments based upon science that is not transparent or reproducible.

# EPA Total Denial = The Black Knight 'None Shall Pass'



# Four Limbs of EPA's PM<sub>2.5</sub> Claims

1. Epidemiology
2. Animal Toxicology
3. Human Clinical Research
4. Real World Experience



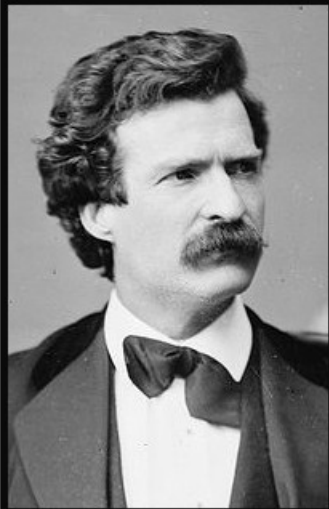
# EPA Admits to Federal Court Epidemiology Proves Nothing

large-scale epidemiological studies. Epidemiological studies, the primary tool in the discovery of risks to public health presented by ambient PM2.5, typically use data from large populations of people with varying susceptibility to PM2.5. They evaluate the relationship between changes in ambient levels of PM2.5 and changes in health effects. However epidemiological studies do not generally provide direct evidence of causation; instead they indicate the existence or absence of a statistical relationship. Large population studies cannot assess the biological mechanisms that could explain how inhaling ambient air pollution particles can cause illness or death in susceptible individuals. Devlin Decl. ¶¶ 6,7,8.

**NEVER FORGET!**

**Epidemiology  $\neq$  Science**

**Epidemiology = Statistics**



There are three kinds of lies — lies, damned lies and statistics.

(Mark Twain)

izquotes.com



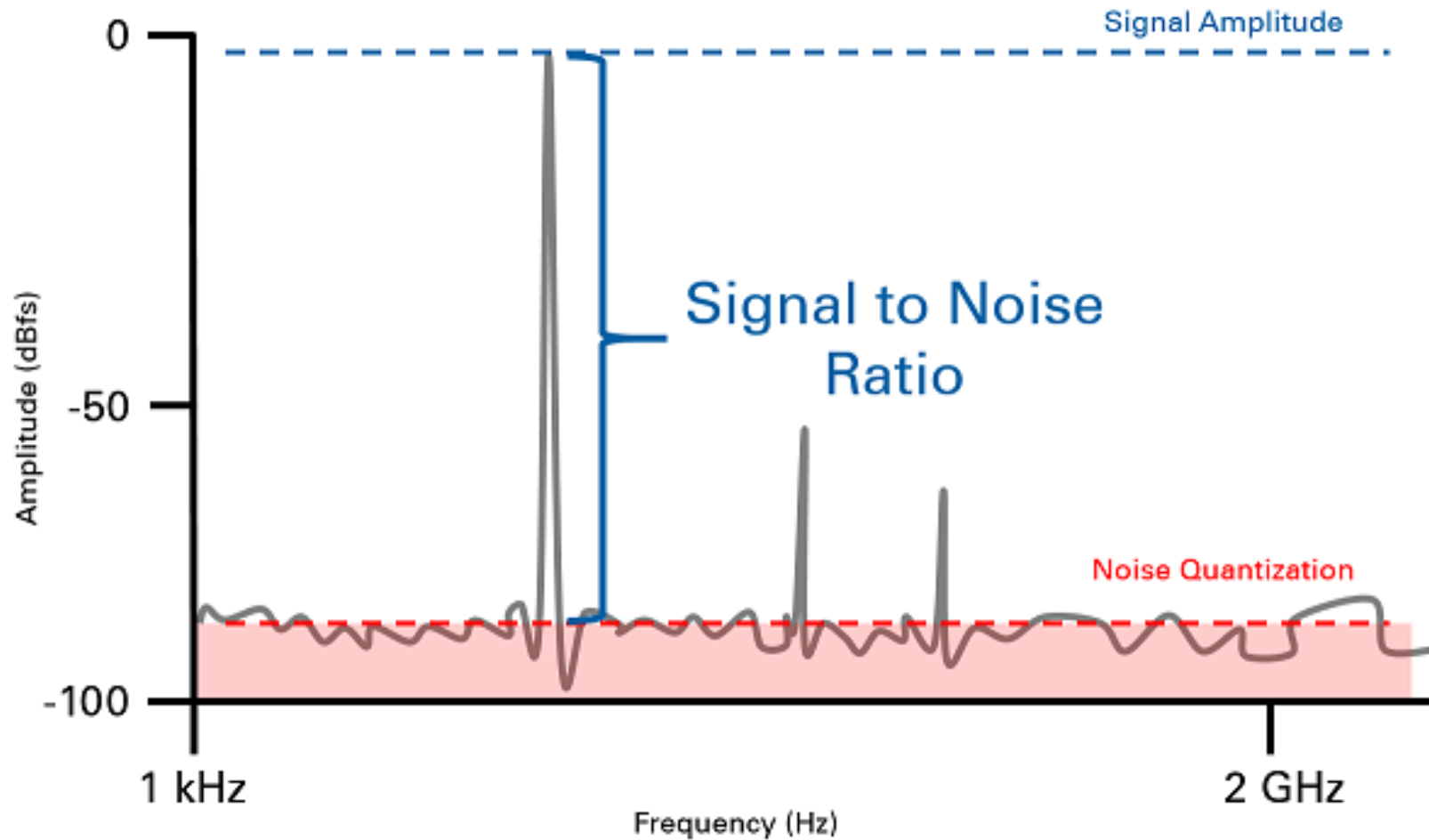
# EPA PM<sub>2.5</sub> Epidemiology Is Junk, Anyway

- All hazard ratios on the order of 1.01 to 1.2.
- Hazard ratio = 1 = NO EVIDENCE OF HAZARD!
- But hazard ratios less than 2.0 are unreliable
  - Sir Austin Bradford Hill, Dean of Epidemiology
  - Sir Richard Doll, knighted epidemiologist
  - National Academy of Sciences
  - National Cancer Institute
  - U.S. Food & Drug Administration

# **National Cancer Institute Media Release, October 26, 1994**

“In epidemiologic research, relative risks of less than 2 are considered small and are usually difficult to interpret. Such increases may be due to chance, statistical bias, or effects of confounding factors that are sometimes not evident.”

# EPA PM<sub>2.5</sub> Regulations Based on Noise, Not Signal



**‘Tis but a scratch...’**



# EPA's Animal Toxicology





**How many animals have died after being exposed to massive doses of PM<sub>2.5</sub>?**



**‘Just a flesh wound..’**



# Human Clinical Research



**How many people have been killed or injured  
in EPA's PM<sub>2.5</sub> human experiments?**



## **But Recall What EPA Tells the Public and Congress**

1. Any inhalation can kill.
2. Death can occur within hours... or decades... which ever comes first.
3. Kills 570,000 Americans every year.



# EPA to PM<sub>2.5</sub> Study Subjects:

## *No Worries*

### What are the possible risks or discomforts involved with being in this study?

This study might involve the following risks and/or discomforts to you:

If you have any tendency to become uncomfortable in small closed spaces, it is possible that you may become uncomfortable during this study. You will be taken to the exposure chamber when you are first evaluated for suitability for the study to allow you an opportunity to see where you will sit and what the chamber looks like.

*PM exposure:* During the exposure to the concentrated air pollution particles, you may experience some minor degree of airway irritation, cough, and shortness of breath or wheezing. These symptoms typically disappear 2 to 4 hours after exposure, but may last longer for particularly sensitive people. You will be monitored continuously during the exposure session

**“I’m invincible”**



# Last Leg:

Does Any Reality Help EPA on PM<sub>2.5</sub>?



# Meuse Valley Fog, December 1930





# Donora, Pennsylvania, October 1948





# Donora at Noon on the 3<sup>rd</sup> Day



# London Fog, December 1952



# Common Elements In All 3 Fatal 20<sup>th</sup> Century Air Pollution Episodes

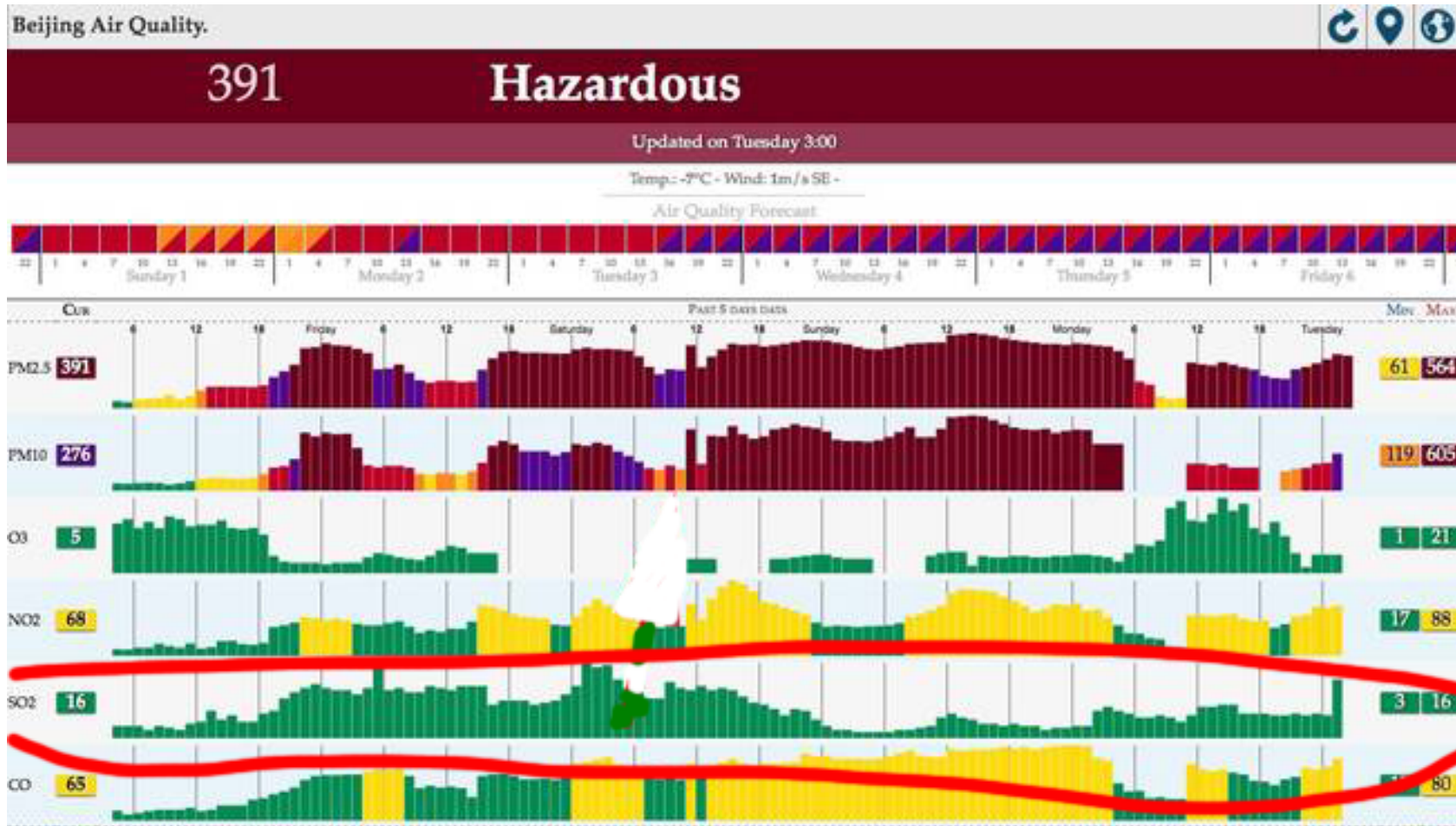
- Meuse Valley
  - Temperature inversion
  - Deaths blamed on ‘irritant gases’
    - Sulfur dioxide levels hundreds of times greater than EPA standards
  - Particulate matter termed “innocuous”
- Donora
  - Temperature inversion
  - “Analogy might be made here with certain war gases.”
  - “No evidence isolated particles had a local effect.”
- London
  - Temperature inversion
  - “...sulfur dioxide believed to constitute the main danger...”
  - Particulate matter not singled out

# Chinese Air Tests the Sulfur Dioxide Hypothesis



# No Deaths in China. Why?

## Low Sulfur Dioxide





# Inconvenient Reality: Smoking

- Massive acute dose of  $PM_{2.5}$ 
  - Up to 40,000 times greater from ONE cigarette
  - Up to 160,000 times greater from ONE marijuana joint
  - 4 million times (like smoking 100 cigarettes) greater from ONE hookah bar session
- No deaths from these  $PM_{2.5}$  inhalations
- Marijuana prescribed for medical reasons to ‘vulnerable’ patients
  - No deaths

# Inconvenient Reality: Smoking (cont'd)

**Do Years of Inhaling PM2.5 from  
Outdoor Air Kill?**

Amount of PM2.5 inhaled  
by a 15-year, half-pack/day  
smoker over 80 years

Amount of PM2.5 inhaled  
by a nonsmoker over 80  
years



**But the nonsmoker and smoker have  
the same life expectancy!**

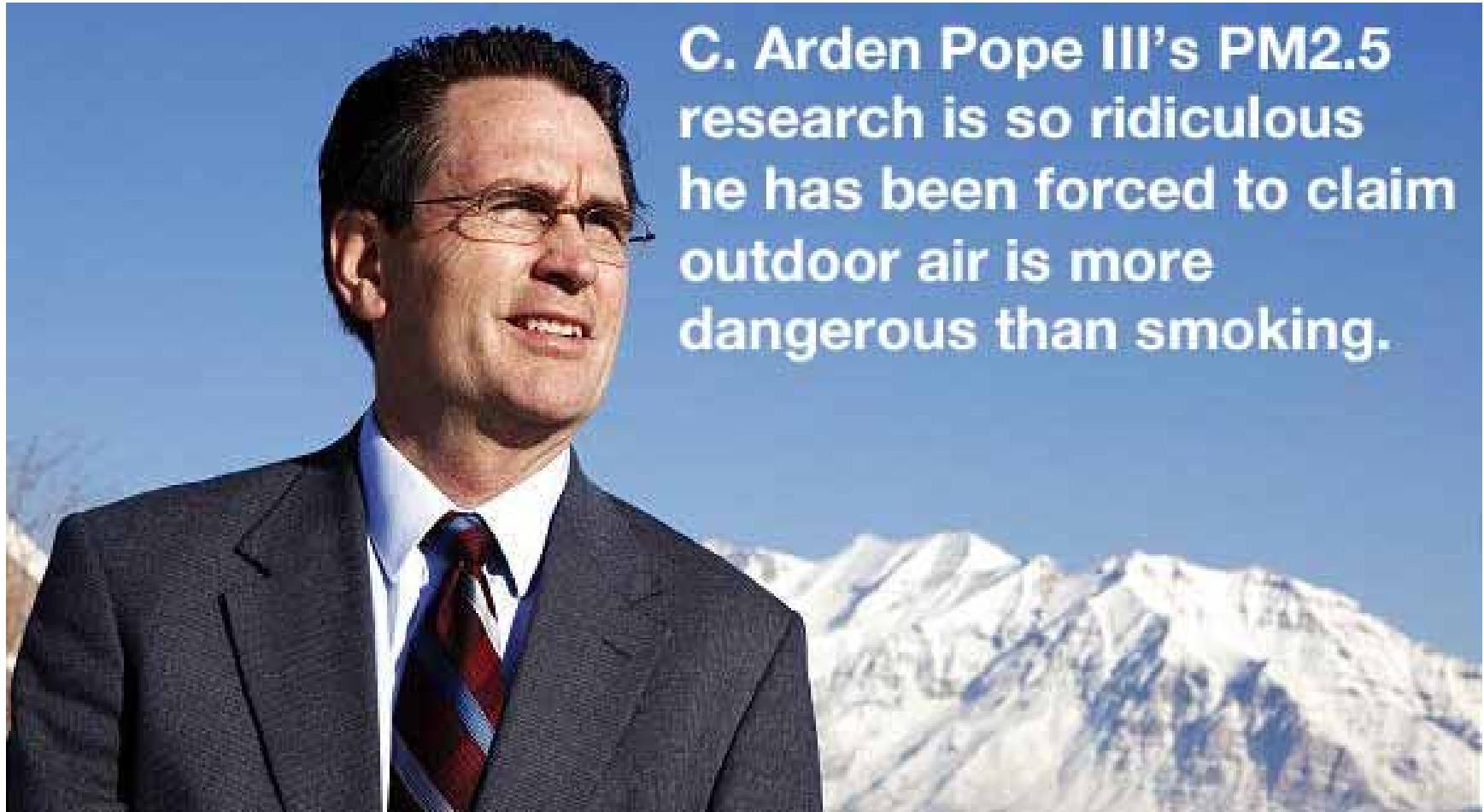
## Inconvenient Reality: Smoking (cont'd)



## Inconvenient Reality: Smoking (cont'd)



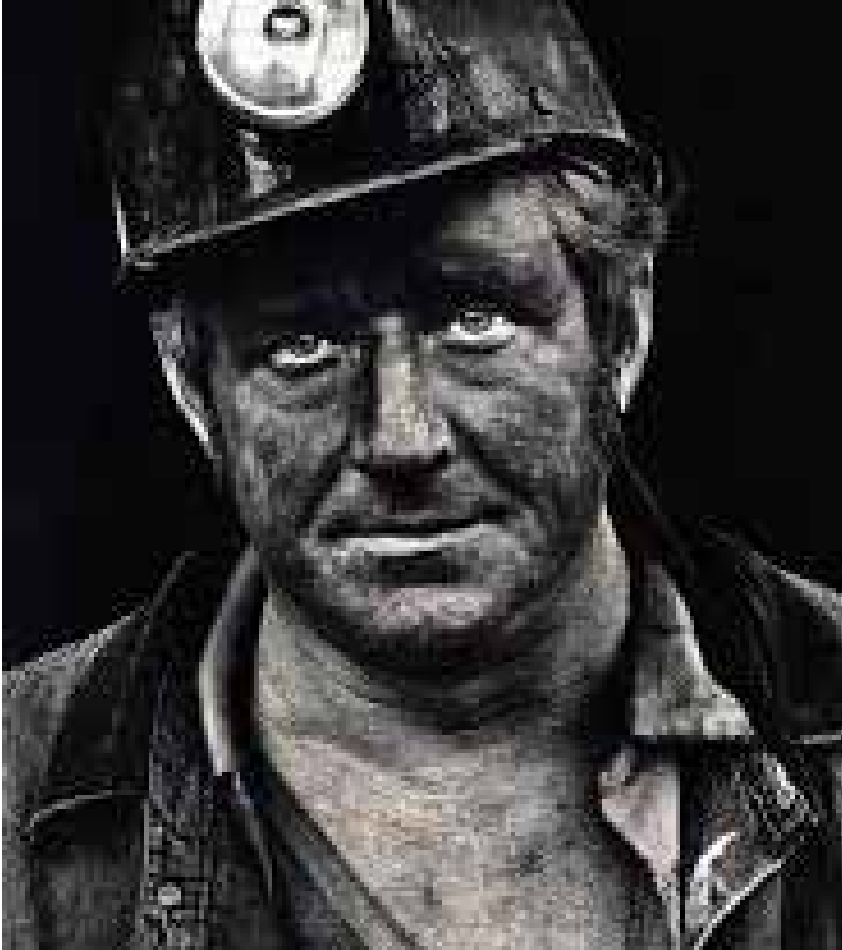
# EPA-Funded Researcher, C. Arden Pope III



C. Arden Pope III's PM2.5 research is so ridiculous he has been forced to claim outdoor air is more dangerous than smoking.



# Underground Coal Miners



- Massive doses of  $PM_{2.5}$  on a daily/career basis
- Allowed to inhale 150 times greater than outdoor air
- Non-smoking coal miners live longer than average worker

**Show us the bodies, EPA!**



**I win.**



# Recall EPA's Secret Science

- EPA keeps key study data secret
  - Harvard Six City data
  - Pope American Cancer Society II data
- EPA defied requests for data
  - CASAC in 1994
  - Congress in 1996
  - Congressional subpoena, 2013
  - HONEST Act (aka 'Secret Science Reform Act')

# Newly Published California Study: No Association Between PM2.5 and Death

Regulatory Toxicology and Pharmacology 88 (2017) 173–184



Contents lists available at ScienceDirect

Regulatory Toxicology and Pharmacology

journal homepage: [www.elsevier.com/locate/yrtph](http://www.elsevier.com/locate/yrtph)



## Air quality and acute deaths in California, 2000–2012



S. Stanley Young <sup>a,\*</sup>, Richard L. Smith <sup>b</sup>, Keneth K. Lopiano <sup>c</sup>

<sup>a</sup> CGStat, 3401 Caldwell Drive, Raleigh, NC 27607, United States

<sup>b</sup> University of North Carolina, Department of Statistics and Operations Research, University of North Carolina, Chapel Hill, NC 27599-3260, United States

<sup>c</sup> Consultant, Winterville, NC 28590, United States



# California PM<sub>2.5</sub> Study

- All deaths in California between 2000-2012 (2+ million)
  - Versus mystery/cherry-picking of EPA studies
- Compares daily deaths with daily PM<sub>2.5</sub> measurements
  - Only study to do this, others use monthly/annual guesstimates
- Cause of death from death certificates
  - Not 'all cause' mortality (unrelated deaths removed)
  - No medical privacy issues
- Result: No association between PM<sub>2.5</sub> and death
  - Even when limited to seniors dying from heart/lung causes
- EPA cronies tried to prevent publication
- ***No secret science – data available to public!***

# Defiant ~~Black Knight~~ EPA



# Obama EPA Cronies Try Biting Back

*The* NEW ENGLAND  
JOURNAL *of* MEDICINE

ESTABLISHED IN 1812

JUNE 29, 2017

VOL. 376 NO. 26

## Air Pollution and Mortality in the Medicare Population

Qian Di, M.S., Yan Wang, M.S., Antonella Zanobetti, Ph.D., Yun Wang, Ph.D., Petros Koutrakis, Ph.D.,  
Christine Choirat, Ph.D., Francesca Dominici, Ph.D., and Joel D. Schwartz, Ph.D.

# Obama EPA Cronies Fight Back

The NEW ENGLAND JOURNAL of MEDICINE

EDITORIALS



## Air Pollution Still Kills

Rebecca E. Berger, M.D., Ramya Ramaswami, M.B., B.S., M.P.H.,  
Caren G. Solomon, M.D., M.P.H., and Jeffrey M. Drazen, M.D.

# NEJM Editorial Attacks President Trump

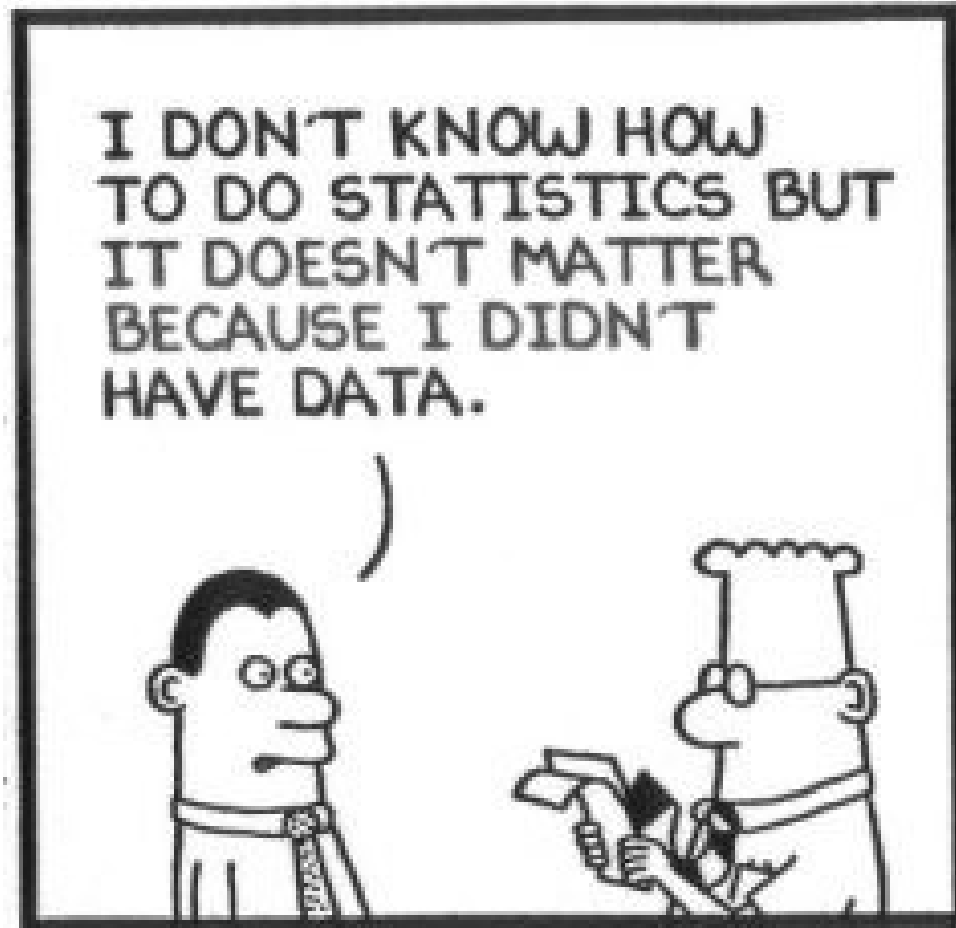
In explaining his withdrawal from the Paris climate agreement, Trump stated, “I was elected to represent the citizens of Pittsburgh, not Paris.” Ironically, Pittsburgh is less than 30 miles from the Donora Smog Museum, where a sign reads, “Clean Air Started Here.” With the report by Di et al. adding to the large body of evidence indicating the risks of air pollution, even at current standards, we must redouble our commitment to clean air. If such protections lapse, Americans will suffer and we are doomed to repeat history. Do we really want to breathe air that kills us?



# NEJM Study = Same Old Junk Science

- **Poor quality data (GIGO)**
  - No cause of death for any study subject
  - Modeled (guesstimated) exposures
  - No consideration of confounding factors
- **Poor statistical analysis**
  - Most charitable interpretation of weak correlations are statistical noise
- **No mention of contradictory studies/evidence**
  - Despite knowledge by study funders, authors and editors

# Summary of NEJM PM<sub>2.5</sub> Study



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## EDITORIALS



## Air Pollution Still Kills **No One**

Rebecca E. Berger, M.D., Ramya Ramaswami, M.B., B.S., M.P.H.,  
Caren G. Solomon, M.D., M.P.H., and Jeffrey M. Drazen, M.D.

# Request for NEJM to Retract Study

- Federally-funded study
- Federal scientific integrity rules
  - ‘Falsification’ = Omitting data or results such that the research is not accurately represented in the research record.
- Touting bad statistical analysis based on poor quality data w/o mention of known contradictory results = Falsification



# Response from EPA's PM<sub>2.5</sub> Cronies at NEJM

“I FART IN YOUR GENERAL DIRECTION!”

- MONTY PYTHON AND THE HOLY GRAIL

sheknows

A man in a hooded tunic stands on a stone wall, looking directly at the camera with his hands behind his head. The background is a plain, light-colored sky. The scene is framed by a black border.

# New NEJM Study: Lower Quality Diet Causes Premature Death



The NEW ENGLAND  
JOURNAL of MEDICINE

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**ORIGINAL ARTICLE**

## Association of Changes in Diet Quality with Total and Cause-Specific Mortality

Mercedes Sotos-Prieto, Ph.D., Shilpa N. Bhupathiraju, Ph.D., Josiemer Mattei, Ph.D., M.P.H., Teresa T. Fung, Sc.D., Yanping Li, Ph.D., An Pan, Ph.D., Walter C. Willett, M.D., Dr.P.H., Eric B. Rimm, Sc.D., and Frank B. Hu, M.D., Ph.D.  
N Engl J Med 2017; 377:143-153 | July 13, 2017 | DOI: 10.1056/NEJMoa1613502

# Even More Misconduct by NEJM

- PM<sub>2.5</sub> and Diet study have same health endpoint: PREMATURE DEATH
- All researchers in both studies from Harvard School of Public Health
- Both studies published in the NEJM
- Published within 2 weeks of each other
- Although each study affects the other (confounding risk factors for death), neither study considers the other.

# How to Stop It from Happening Again

- Campaign to reform EPA science
  - Regulatory pauses lasts only as long as GOP in control
  - Honest Act
  - EPA Science Advisory Board Reform Act
  - Stop funding EPA/university junk science
  - Other EPA science reforms
- Fire back at the #FakeNews media
- Sue the EPA-funded universities
  - Universities have accepted ~\$600 million to publish fraudulent science
- Be more aggressive, break some china

# How to Stop It from Happening Again

- Don't bring Jello to a gun fight
  - Don't assume Congress will protect you
  - Don't assume the WashDC swamp will protect you
- Economics by itself is an insufficient message
  - Fraudulent science should be the lead message
  - Mindset of judges, public
    - Weighing procedural errors vs. EPA claims of saving lives



# *Climatewire*, July 20, 2017

**EPA**

## **Many staffers plan to weather Trump tempest**

Niina Heikkinen and Robin Bravender, E&E News reporters

*Published: Thursday, July 20, 2017*



U.S. EPA Administrator Scott Pruitt signs papers with President Trump. Agency employees aren't rushing to leave EPA under Pruitt's leadership. EPA

# Policy Cannot Be Changed Willy-Nilly!

## AIR POLLUTION

### EPA delays ozone rule

Sean Reilly, E&E News reporter

Published: June 6, 2017 at 8:05 PM

SECTIONS



The New York Times

CLIMATE

## *E.P.A. Reverses Course on Ozone Rule*

By LISA FRIEDMAN AUG. 3, 2017



# Even if GOP runs EPA forever, threats abound!

- Activist groups
- Activist 'scientists'
- Universities
  - Politically correct
  - Grant hungry
- Blue states
- Vague, out-of-date laws
- Uninformed, politicized judiciary
- Public opinion

## But There Is Good News!

1. Proposed repeal of Clean Power Plan based on  $PM_{2.5}$  *NOT* causing death.
2. EPA plan to impose conflict of interest standards on science advisors.

**Steve Milloy**

[milloy@me.com](mailto:milloy@me.com)

**@JunkScience**

**JunkScience.com**

**240-205-1243**

