

01268-EPA-904

**Barbara  
Bennett/DC/USEPA/US**  
12/14/2010 01:03 PM

To Richard Windsor  
cc Bob Perciasepe, Diane Thompson, David McIntosh, Arvin  
Ganesan  
bcc

Subject Fw: Omnibus just got filed

The Senate filed their bill.....from a quick look at the numbers, (b) (5) Deliberative

Will send bill

language under separate cover to Arvin and David.

Barbara J. Bennett  
Chief Financial Officer  
U.S. EPA  
202-564-1151



Press-Omnibus-Dec14.docx

## **Interior, Environment and Related Agencies Summary Fiscal Year 2011 Appropriations**

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2010 Enacted level:	\$32.2 billion
2011 President's request:	\$32.4 billion
2011 Senate bill:	\$32.2 billion

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An overall amount of \$32.2 billion in non-emergency discretionary spending authority is provided for a broad array of programs that help our communities, safeguard our public lands, protect our natural resources, strengthen Native American and Alaska Native programs, and supports our most treasured cultural institutions, memorials and monuments. The recommended amount is the same as the fiscal year 2010 enacted level and \$178.3 million below the President's request.

### **What this bill does:**

- Provides \$6.2 billion to support the ongoing operations of our national parks and forests, our national wildlife refuges and our federal rangelands;
- Provides \$506.8 million for the purchase and protection of lands through the Land and Water Conservation Fund;
- Provides over \$7 billion to help improve the quality and accessibility of education, health care and law enforcement programs for Native Americans and Alaska Natives;
- Provides over \$10 billion to protect human health and the environment to fund pollution control programs that provide cleaner air and water, regulation and disposal of hazardous waste and toxic substances; state and local water infrastructure improvements; scientific research and long-term monitoring of our land and water resources; multidisciplinary research and training activities associated with the Nation's Hazardous Substance Superfund program; surveys and screening programs to determine relationships between exposure to toxic substances and illness; and activities that support National Environmental Policy Act implementation.
- Provides over \$3 billion for firefighting and hazardous fuels reduction activities on federal lands including \$1.27 billion for wildland fire suppression, of which \$387 million is designated for the FLAME wildfire suppression reserve funds; and \$574 million is for hazardous fuels reduction on Federal lands, an increase of \$18 million over the FY 2010 enacted level, that will allow the Forest Service and Interior Department to treat 3.5 million acres of fire-prone federal lands.

- Reorganizes the former Minerals Management Service to create the Bureau of Ocean Energy Management, Regulation and Enforcement. This new bureau will ensure better and safer management of our nation's energy and minerals resources, including offshore drilling permitting and leasing, worker safety issues, and protection from avoidable environmental disasters. The bill will enable the agency to double the outer continental shelf oil and gas inspection workforce.
- Provides \$1.4 billion to support the operations of our national museums, galleries, presidential memorials and centers, including \$20 million to begin construction of the Smithsonian African American Museum of History and Culture.

*A summary of the Interior division by title follows:*

**Title 1, Department of the Interior**

**Bureau of Land Management** – The bill includes \$1.1 billion for the Bureau of Land Management, \$10.6 million below the fiscal year 2010 enacted level and \$9.4 million below the President's FY 2011 request. The total amount includes \$944 million to manage recreation, resource protection, habitat conservation, and energy production on public lands; \$75.7 million to protect wild horses on the range; and \$15.9 million to inventory and clean up abandoned mine sites.

**U.S. Fish and Wildlife Service** - The bill includes \$1.7 billion for operations of the U.S. Fish and Wildlife Service, an increase of \$39 million above the FY 2010 enacted level and \$43.6 million above the President's FY 2011 request. The total amount includes \$504 million for national wildlife refuges; \$291.5 million for protection of threatened and endangered species; and \$890.1 million for a broad variety of other wildlife and habitat conservation programs in all 50 states and the U.S. territories.

**National Park Service** – The bill includes \$2.8 billion for operations of the National Park Service, an increase of \$11.3 million above the FY 2010 enacted level and \$26.2 million above the FY 2011 President's request. Within this total, \$2.3 billion is provided for operations of the National Park System; and \$197 million is provided for construction activities.

**U.S. Geological Survey** - The bill includes \$1.2 billion for operations of the U.S. Geological Survey, an increase of \$42.4 million above the FY 2010 enacted level and \$21 million above the FY 2011 President's request. Key increases include an additional \$13.4 million to support the Landsat Data Continuity Mission; \$9 million for the proposed WaterSmart Initiative; and \$4 million to expand the Multi-hazards Initiative.

**Bureau of Ocean Energy Management, Regulation and Enforcement** – The bill includes \$232.9 million for the Bureau of Ocean Energy Management, Regulation and Enforcement, formerly the Minerals Management Service, an increase of \$51.4 million above the FY 2010 enacted level and \$32 million below the FY 2011 President's request. Funds are provided for the

oversight, regulation, and royalty collection for Outer Continental Shelf energy production. An additional \$50 million for offshore oil and gas inspections will be available from inspection fees assessed to the industry.

**Office of Surface Mining Reclamation and Enforcement** –The bill includes \$162 million for the Office of Surface Mining Reclamation and Enforcement, an increase of \$16 million above the FY 2011 President’s request and \$0.8 million below the FY 2010 enacted level.

**Bureau of Indian Affairs** - The bill includes \$2.6 billion for the Bureau of Indian Affairs, a decrease of \$34.2 million below the FY 2010 enacted level and \$19.4 million above the FY 2011 President’s request. An amount of \$2.4 billion is provided for the operation of Indian programs; \$125.7 million is provided for construction of education, public safety and justice facilities; and \$46.5 million is provided for Indian land and water claim settlements and miscellaneous payments to Indians.

**Departmental Offices** – The bill includes \$501.4 million for Departmental Office programs, a decrease of \$39.6 million below the FY 2010 enacted level and \$14.7 million above the FY 2011 President’s request. Funding for the Office of the Secretary is proposed at \$122 million; the Insular Affairs program is funded at \$93.8 million; the Office of the Solicitor is funded at \$67.9 million; the Office of the Inspector General is funded at \$49.6 million and the Office of the Special Trustee for American Indians is funded at \$168.1 million.

**Department-wide Programs** - The bill includes \$1.02 billion for Department-wide Programs, an increase of \$58.04 million above the FY 2010 enacted level and \$26.4 million above the FY 2011 President’s request. Wildland fire accounts are funded in total at \$921.5 million; the Central Hazardous Materials Fund is provided \$10.1 million; the Natural Resource Damage Assessment Fund is provided \$6.4 million; and the Working Capital Fund is provided \$81.6 million.

## **Title II, Environmental Protection Agency**

**Environmental Protection Agency** - The bill includes \$10 billion for the Environmental Protection Agency, a decrease of \$275 million below the fiscal year 2010 level and \$26 million above the President’s request. The distribution of funds among major programs of the agency follows:

- **\$3.5 billion for water and sewer infrastructure and other infrastructure improvement activities**, a decrease of \$372 million below the FY 2010 enacted level. The Senate mark will fund more than 1,000 water and sewer projects for communities nationwide and includes:
  - \$1.9 billion for sewer system improvements through the Clean Water State Revolving Fund program;
  - \$1.2 billion for drinking water system improvements through the Drinking Water State Revolving Fund program; and

- \$145 million above the President's request for targeted water and sewer improvements.
- **\$1.29 billion to States and tribes to fund environmental regulation and protection activities**, an increase of \$170 million above the FY 2010 enacted level and \$10 million above the President's request including:
  - \$309 million for State and local air pollution control grants, an increase of \$83 million over the 2010 level;
  - \$274 million for State water pollution control grants, an increase of \$45 million above the FY 2010 enacted level; and
  - \$30 million for a new tribal grant program to implement pollution control activities in Indian Country.
- **\$2.93 billion for environmental programs and management activities**, a decrease of \$66.8 million below the fiscal year 2010 enacted level. An amount of \$454 million is provided for environmental protection programs focused on regional water bodies, including \$300 million for the Great Lakes Restoration Initiative, \$63 million for the Chesapeake Bay Program and \$7 million to restore the San Francisco Bay.
- **\$1.29 billion for Superfund programs and activities**, a decrease of \$13.5 million below the FY 2010 enacted level and the same amount as the President's request.
- **\$852 million for science and technology programs**, an increase of \$4 million above the fiscal year 2010 enacted level and \$5 million above the President's request. Within the funds provided, \$3 million is included to expand environmental testing of subsea dispersants such as those used during the recent Deepwater Horizon incident.
- **\$60 million for Diesel Emission Reduction Act grants**, the same amount as the fiscal year 2010 enacted level.

### **Title III, Related Agencies**

**U.S. Forest Service, Department of Agriculture** – The bill includes \$5.13 billion for operations of the U.S. Forest Service, a decrease of \$164.6 million below the FY 2010 enacted level and \$243.9 million below the President's FY 2011 request. Key funding levels include:

- \$1.62 billion for operations of national forests and grasslands, of which \$150 million is provided for law enforcement operations to combat drug cultivation on public lands; \$332 million is provided for forest products; \$25 million is provided for a competitive watershed restoration and job creation initiative; \$295 million is provided for recreation programs; and \$40 million in new funding is provided for large-scale collaborative landscape restoration projects, as authorized by the Collaborative Forest Landscape Restoration Act of 2009.
- \$544.5 million for capital improvement and maintenance activities, a decrease of \$11.5 million below the fiscal year 2010 enacted level.
- \$314.2 million for forestry research activities, an increase of \$2.2 million above the fiscal year 2010 level.

**Indian Health Service, Department of Health and Human Services** – The bill includes \$4.4 billion for Indian Health Service programs, an increase of \$354 million above the FY 2010

enacted level and the same amount as the President's FY 2011 request. An amount of \$3.96 billion is recommended for the health services account, an increase of \$303.6 million above the FY 2010 enacted level. The health facilities account is funded at \$445.2 million, an increase of \$50.5 million above the FY 2010 enacted level.

**National Institute of Environmental Health Sciences, National Institutes of Health, Department of Health and Human Services** – The bill includes \$81.8 million for the National Institute of Environmental Health Sciences, an increase of \$2.6 million above the FY 2010 enacted level and the same amount as the President's FY 2011 request.

**Agency for Toxic Substances and Disease Registry, National Institutes of Health, Department of Health and Human Services** - The bill includes \$76.3 million for the Agency for Toxic Substances and Disease Registry, a decrease of \$0.5 million below the FY 2010 enacted level and the same amount as the President's FY 2011 request.

**Council on Environmental Quality, Executive Office of the President** - The bill includes \$3.45 million for the Council on Environmental Quality, an increase of \$0.3 million above the FY 2010 enacted level and the same amount as the President's FY 2011 request.

**Chemical Safety and Hazard Investigation Board** – The bill includes \$13.1 million for the Chemical Safety and Hazard Investigation Board, an increase of \$2 million above the FY 2010 enacted level and \$2.3 million over the President's FY 2011 request.

**Office of Navajo and Hopi Indian Relocation** – The bill includes \$8 million for the Office of Navajo and Hopi Indian Relocation, the same amount as the FY 2010 enacted level and the President's FY 2011 request.

**Institute of American Indian and Alaska Native Culture and Arts Development** - The bill includes \$8.8 million for the Institute of American Indian and Alaska Native Culture and Arts Development, an increase of \$0.5 million above the FY 2010 enacted level and the same amount as the President's FY 2011 request.

**Smithsonian Institution** - The bill includes \$797.6 million for the Smithsonian Institution, an increase of \$36.2 million above the FY 2010 enacted level and the same amount as the President's FY 2011 request.

**National Gallery of Art** – The bill includes \$164.6 million for the National Gallery of Art, a decrease of \$2.5 million from the FY 2010 enacted level and an increase of \$1.8 million above the President's FY 2011 request.

**John F. Kennedy Center for the Performing Arts** – The bill includes \$37.4 million for the John F. Kennedy Center for the Performing Arts, a decrease of \$3 million from the FY 2010 enacted level and the same amount as the President's FY 2011 request.

**Woodrow Wilson International Center for Scholars** – The bill includes \$12.2 million for the Woodrow Wilson International Center for Scholars, the same amount as the FY 2010 enacted level and the President’s FY 2011 request.

**National Endowment for the Arts** – The bill includes \$170 million for the National Endowment for the Arts, an increase of \$2.5 million above the FY 2010 enacted level and \$8.7 million above the President’s FY 2011 request.

**National Endowment for the Humanities** – The bill includes \$170 million for the National Endowment for the Arts, an increase of \$2.5 million above the FY 2010 enacted level and \$8.7 million above the President’s FY 2011 request.

**Commission of Fine Arts** - The bill includes \$2.4 million for the Commission of Fine Arts, an increase of \$0.06 million above the FY 2010 enacted level and the same amount as the President’s FY 2011 request.

**National Capital Arts and Cultural Affairs** – The bill includes \$12.5 million for the National Capital Arts and Cultural Affairs program, an increase of \$2.5 million above the FY 2010 enacted level and \$7.5 million above the President’s FY 2011 request.

**Advisory Council on Historic Preservation** – The bill includes \$5.9 million for the Advisory Council on History Preservation, the same amount as the FY 2010 enacted level and President’s FY 2011 request.

**National Capital Planning Commission** - The bill includes \$9.1 million for the National Capital Planning Commission, an increase of \$0.6 million above the FY 2010 enacted level and the same amount as the President’s FY 2011 request.

**United States Holocaust Memorial Museum** - The bill includes \$50.5 million for the United States Holocaust Memorial Museum, an increase of \$1.4 million above the FY 2010 enacted level and the same amount as the President’s FY 2011 request.

**Presidio Trust** - The bill includes \$21.6 million for the Presidio Trust, an increase of \$1.6 million above the FY 2010 enacted level and \$6.6 million above the President’s FY 2011 request.

**Title IV, General Provisions** - Includes Congressional direction, guidelines and general authorities to agencies within the bill.

**Title V** - Authorizes the Sacramento-San Joaquin Delta National Heritage Area in California.

**Title VI** - The National Women’s History Museum Act of 2009 allows for the conveyance of property in the District of Columbia from the General Services Administration to the National Women’s History Museum, Inc. for the establishment of a museum on the site.

**Title VII** -- Authorizes certain forest management activities and designations on national forests in Montana.

01268-EPA-908

Joseph Goffman/DC/USEPA/US  
12/14/2010 09:18 PM

To: Gina McCarthy  
cc: Richard Windsor, McIntosh.David, Janet McCabe, Bob Sussman, Heidi Ellis, Don Zinger, Scott Fulton  
bcc:  
Subject: Re: Biomass GHG PSD House letter and economic impacts study

Administrator -- As Gina promised, please find attached a somewhat more detailed memo, prepared by OAR and reviewed by OGC, on the biomass issue. (b) (5) Deliberative

[Redacted]

[Redacted]

We will follow this up with a briefing for you.

Thanks.

(b) (5) Deliberative

Biomass\_Briefer\_for Administrator\_12\_14\_10\_final\_600pm.docx

Joseph Goffman  
Senior Counsel to the Assistant Administrator  
Office of Air and Radiation  
US Environmental Protection Agency  
202 564 3201

Gina McCarthy The troops are working on a briefing an... 12/13/2010 09:00:53|PM

From: Gina McCarthy/DC/USEPA/US  
To: Richard Windsor/DC/USEPA/US@EPA  
Cc: McIntosh.David@EPA.GOV, Joseph Goffman/DC/USEPA/US@EPA, Janet McCabe/DC/USEPA/US@EPA  
Date: 12/13/2010 09:00 PM  
Subject: Re: Biomass GHG PSD House letter and economic impacts study

The troops are working on a briefing and talking points for you tomorrow. In the meantime, I thought I would quickly summarize what we have said, what we are doing, and what options we are considering. They will do a much spiffier job tomorrow, I promise.

What have we already said?

(b) (5) Deliberative

[Redacted]

decisions.

3. (b) (5) Deliberative

[Redacted]

[Redacted]

[Redacted]

Hopefully the memo tomorrow will provide you with the key facts so we can respond to the letter asap. The outstanding question will be (b) (5) Deliberative

[Redacted]

Richard Windsor Thx. (b) (5) Deliberative 12/13/2010 02:50:38 PM

From: Richard Windsor/DC/USEPA/US  
To: Gina McCarthy/DC/USEPA/US@EPA  
Date: 12/13/2010 02:50 PM  
Subject: Re: Biomass GHG PSD House letter and economic impacts study

Thx. (b) (5) Deliberative

**From:** Gina McCarthy  
**Sent:** 12/13/2010 02:49 PM EST  
**To:** Richard Windsor  
**Subject:** Re: Biomass GHG PSD House letter and economic impacts study

Will do. I will run something by you be this evening.

**From:** Richard Windsor  
**Sent:** 12/13/2010 02:35 PM EST  
**To:** David McIntosh; Bob Perciasepe; Gina McCarthy; Bob Sussman; Scott Fulton; Joseph Goffman; "Seth Oster" <oster.seth@epa.gov>; Brendan Gilfillan  
**Subject:** Re: Biomass GHG PSD House letter and economic impacts study

(b) (5) Deliberative

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**From:** David McIntosh  
**Sent:** 12/13/2010 12:03 PM EST  
**To:** Richard Windsor; Bob Perciasepe; Gina McCarthy; Bob Sussman; Scott Fulton; Joseph Goffman  
**Subject:** Biomass GHG PSD House letter and economic impacts study

Here is the final letter from House members to the Administrator about the biomass GHG PSD issue. Please note in the email below the reference to an imminent economic impacts study.

---

**From:** "Karen, Catherine" [ckaren@nafoalliance.org]  
**Sent:** 12/13/2010 11:19 AM EST  
**To:** David McIntosh  
**Subject:** House Tailoring Rule Letter

Hi David,

I hope you had a somewhat restful weekend. Attached please find a letter that should have been received by you all already and is addressed to the Administrator. We will be rolling out an economic study on the impact of the tailoring rule on Weds and I will forward you the materials as soon as they are available.

Take care,  
Catherine  
Catherine Karen  
Vice President for Government Affairs  
National Alliance of Forest Owners  
122 C Street, NW Suite 630  
Washington, DC 20001  
202.747.0741 (VM)  
703.477.3449 (cell)  
[ckaren@nafoalliance.org](mailto:ckaren@nafoalliance.org)

01268-EPA-909

Arvin Ganesan/DC/USEPA/US

To Richard Windsor, Diane Thompson, David McIntosh

12/15/2010 02:33 PM

cc

bcc

Subject Fw: provisions of note in the omnibus

FYI - (b) (5) Deliberative, (b) (5) Attorney Client

-----  
ARVIN R. GANESAN  
Deputy Associate Administrator  
Office of the Administrator  
United States Environmental Protection Agency  
Ganesan.Arvin@epa.gov  
(p) 202.564.5200  
(f) 202.501.1519

----- Forwarded by Arvin Ganesan/DC/USEPA/US on 12/15/2010 02:31 PM -----

From: Arvin Ganesan/DC/USEPA/US  
To: Barbara Bennett/DC/USEPA/US@EPA, Scott Fulton/DC/USEPA/US@EPA, David McIntosh/DC/USEPA/US@EPA, Craig Hooks/DC/USEPA/US@EPA, Avi Garbow/DC/USEPA/US@EPA  
Date: 12/15/2010 02:31 PM  
Subject: provisions of note in the omnibus

Afternoon,  
We have been alerted to a handful of provisions in the filed Omnibus Approps that we're going to need to digest and understand in short order. (b) (5) Deliberative, (b) (5) Attorney Client

[Redacted]

[Redacted]

[Redacted]

The specific question for OGC and OARM is: (b) (5) Deliberative, (b) (5) Attorney Client

?

Can you please opine on these questions asap? (b) (5) Deliberative, (b) (5) Attorney Client  
[REDACTED]



Thanks. fy11 omnibus -.pdf

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ARVIN R. GANESAN  
Deputy Associate Administrator  
Office of the Administrator  
United States Environmental Protection Agency  
Ganesan.Arvin@epa.gov  
(p) 202.564.5200  
(f) 202.501.1519

01268-EPA-911

**Karl Brooks/R7/USEPA/US**  
12/16/2010 02:07 PM

To Perciasepe.Bob, Sussman.Bob, "Seth Oster", "Scott Fulton",  
"Sarah Pallone", Richard Windsor  
cc "Janet Woodka"

bcc

Subject Fw: sunflower- confidential - embargoed release

Below is Kan env agencys annmnt of its decision today to permit Sunflower Coal Plant.

A couple pts for context and consideratn:

(b) (5) Deliberative [Redacted]

Karl  
Sent by EPA Wireless E-Mail Services  
David Bryan

----- Original Message -----

**From:** David Bryan  
**Sent:** 12/16/2010 10:45 AM CST  
**To:** Karl Brooks; William Rice; Rebecca Weber; David Cozad  
**Subject:** Fw: sunflower- confidential - embargoed release



10-301 Sunflower decision-embargoed.docx

**Text of embargoed release:**

**EMBARGOED until 2 p.m.:**  
Pankratz, 785-296-5795  
December 16, 2010  
[kpankratz@kdheks.gov](mailto:kpankratz@kdheks.gov)

Contact: Kristi

[www.kdheks.gov](http://www.kdheks.gov)

## KDHE Issues Sunflower Electric Air Quality Permit

The Kansas Department of Health and Environment (KDHE) announced today that it has issued the air quality permit for the proposed 895 MW Coal-Fired Steam Generating Unit at the Sunflower Electric Power Corporation near Holcomb.

"After careful review of the permit application, public comments and applicable laws, I have decided to approve the application for an air quality permit," said John W. Mitchell, KDHE Acting Secretary. "The Sunflower proposed expansion project meets all current state and federal requirements for issuing the permit."

The Sunflower application was submitted January 13 and deemed complete June 30. An initial public comment period was held July 1-August 15. A second comment period was held September 23-October 23 to allow for changes that needed to be made to the modeling data. Throughout the process, staff has been working on a Responsiveness Summary, reviewing comments received, making modifications to the permit and providing responses to the comments.

"KDHE is committed to a fair and accurate process. Our staff has diligently and thoroughly reviewed this application and all public comments received. We have also worked with EPA and Sunflower throughout the entire process to ensure all requirements are met. I am confident that we have the best permit possible for Kansas," said Acting Secretary Mitchell.

To review a copy of the Sunflower permit and Responsiveness Summary, visit [www.kdheks.gov](http://www.kdheks.gov).

###

David W. Bryan, APR  
Public Affairs Specialist  
Office of Public Affairs  
EPA Region 7  
901 N. 5th Street  
Kansas City, KS 66101  
913.551.7433, Fax: 913.551.7066  
[bryan.david@epa.gov](mailto:bryan.david@epa.gov)

----- Forwarded by David Bryan/R7/USEPA/US on 12/16/2010 10:41 AM -----

From: Rich Hood/R7/USEPA/US  
To: David Bryan/R7/USEPA/US@EPA  
Date: 12/16/2010 10:35 AM  
Subject: Fw: sunflower- confidential

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Dave,

Can you please send the KDHE release to Karl as soon as we have it.

Thanks,

Rich Hood  
Associate Regional Administrator  
For Media, Intergovernmental Relations  
Region 7  
(o) 913-551-7906  
(c) 913-339-8327

----- Forwarded by Rich Hood/R7/USEPA/US on 12/16/2010 10:35 AM -----

From: Karl Brooks/R7/USEPA/US  
To: Rebecca Weber/R7/USEPA/US@EPA, "rice william" <rice.william@epa.gov>, Rich Hood/R7/USEPA/US@EPA, David Cozad/R7/USEPA/US@EPA  
Date: 12/16/2010 10:15 AM  
Subject: Re: sunflower- confidential

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Pls fwd me kdhe release asap aftr 2. Tx!  
Sent by EPA Wireless E-Mail Services  
Rebecca Weber

----- Original Message -----

**From:** Rebecca Weber  
**Sent:** 12/16/2010 08:34 AM CST  
**To:** Karl Brooks; rice.william@epa.gov; Rich Hood; David Cozad  
**Subject:** sunflower- confidential

At 9 am, KDHE will do a press release stating a press conference will be held at 2 pm to announce the Sunflower decision. The decision will be to issue the permit but they ask that we do not share that information until they announce at 2 pm.

Rich, may want to have some words put together as a response.....



Mark Parkinson, Governor  
John W. Mitchell, Acting Secretary

[www.kdheks.gov](http://www.kdheks.gov)

EMBARGOED until 2 p.m.:  
December 16, 2010

Contact: Kristi Pankratz, 785-296-5795  
[kpankratz@kdheks.gov](mailto:kpankratz@kdheks.gov)  
[www.kdheks.gov](http://www.kdheks.gov)

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"KDHE is committed to a fair and accurate process. Our staff has diligently and thoroughly reviewed this application and all public comments received. We have also worked with EPA and Sunflower throughout the entire process to ensure all requirements are met. I am confident that we have the best permit possible for Kansas," said Acting Secretary Mitchell.

To review a copy of the Sunflower permit and Responsiveness Summary, visit [www.kdheks.gov](http://www.kdheks.gov).

###

*As the state's environmental protection and public health agency, KDHE promotes responsible choices to protect the health and environment for all Kansans.*

*Through education, direct services and the assessment of data and trends, coupled with policy development and enforcement, KDHE will improve health and quality of life. We prevent illness, injuries and foster a safe and sustainable environment for the people of Kansas.*



01268-EPA-921

Scott Fulton/DC/USEPA/US  
12/27/2010 12:43 PM

To "Bob Perciasepe", "Bob Sussman", "David McIntosh",  
"Richard Windsor"

cc

bcc

Subject Boiler MACT

Hi Folks : As indicated by the note below, (b) (5) Deliberative, (b) (5) Attorney Client

[Redacted]

Scott

Wendy Blake

----- Original Message -----

**From:** Wendy Blake

**Sent:** 12/27/2010 10:05 AM EST

**To:** Scott Fulton; Avi Garbow; Janet McCabe; Gina McCarthy; Peter  
Tsirigotis

**Cc:** Patricia Embrey; Kevin Mclean; Paul Versace; Jonathan Averbach;  
Susmita Dubey; Joseph Goffman

**Subject:** Fw: SC opp. memo

Scott, Avi, Gina, Janet and Peter,

Attached is Sierra Club's opposition to EPA's motion to extend the January 16, 2011 deadline for Boilers,  
CISWI and SSI. (b) (5) Deliberative, (b) (5) Attorney Client

[Redacted]

[Redacted]

[Redacted]

[Redacted]

Wendy

----- Forwarded by Wendy Blake/DC/USEPA/US on 12/27/2010 09:53 AM -----

From: Amy Branning/DC/USEPA/US  
To: Wendy Blake/DC/USEPA/US@EPA  
Date: 12/27/2010 09:29 AM  
Subject: SC opp. memo



SC memo oppose extension 122410.pdf  
Amy Huang Branning  
EPA Office of General Counsel  
phone: (202) 564-1744

Attachment is 170 page legal memo  
in Case 1:01-cv-01537-PLF, Sierra  
Club v. Lisa P. Jackson. Please  
notify EPA if you would like complete  
copy of attachment.

fax: (202) 564-5603 or (202) 564-0070

Confidential Communication for Internal Deliberations Only; Attorney-Client Privileged Document; Do Not Distribute Outside EPA or DOJ

**UNITED STATES DISTRICT COURT FOR THE DISTRICT OF COLUMBIA**

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SIERRA CLUB	)	Case No. 1:01CV01537
	)	
Plaintiff,	)	(consolidated with
	)	Case No. 1:01CV01548
v.	)	Case No. 1:01CV01558
	)	Case No. 1:01CV01569
LISA P. JACKSON, <sup>1</sup> Administrator,	)	Case No. 1:01CV01578
U.S. Environmental Protection Agency,	)	Case No. 1:01CV01582
	)	Case No. 1:01CV01597)
Defendant.	)	
	)	Judge Paul L. Friedman

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**SIERRA CLUB'S MEMORANDUM OF POINTS AND AUTHORITIES IN  
OPPOSITION TO DEFENDANT'S MOTION TO AMEND ORDER OF MARCH 31, 2006**

EPA moves to extend this Court's deadline for air toxics rules that are now more than ten years overdue. The agency seeks a fifteen month delay of the emission standards for industrial boilers and incinerators necessary to meet the agency's obligations under Clean Air Act § 112(c)(6) and a six month delay of the emission standards for sewage sludge incinerators necessary to meet the agency's obligations under Clean Air Act § 112(c)(3). Mot. at 3. EPA's own analysis makes clear that the agency's delay to date has taken an appalling toll on the health of exposed Americans, and indicates that an additional year of delay in controlling pollution from industrial boilers and incinerators would cause between 2,000 and 5,100 premature deaths.

This Court's deadline order has been in place since March 31, 2006 and EPA has had – at a minimum – more than three and one half years to complete all the statutory duties it now seeks to extend. Because EPA has not met its heavy burden of proving that it was impossible to issue

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<sup>1</sup> Under Rule 25(d)(1), current Administrator Lisa P. Jackson is automatically substituted for former Administrator Stephen L. Johnson.

the overdue rules during the equitable extension of the statutory deadlines that this Court already has provided, the agency's motion for an additional extension should be denied.

## BACKGROUND

### I. SECTION § 112(c)(6) AND EPA'S RULES FOR INDUSTRIAL BOILERS AND INCINERATORS.

Congress designed § 112(c)(6) of the Clean Air Act to provide extra protection against some of the most dangerous air pollutants known: mercury, dioxins, polychlorinated biphenyls (PCBs), polycyclic organic matter (POM), hexachlorobenzene, and lead. 42 U.S.C. § 7412(c)(6). These pollutants can cause cancer, birth defects, and similarly catastrophic damage to human health even in tiny quantities, and are known to persist in the environment and to bioaccumulate in food sources and wildlife. Accordingly, although the Clean Air Act requires EPA to issue highly protective "maximum achievable control technology" (MACT) standards only for "major sources" of other hazardous air pollutants, it requires EPA to ensure that sources accounting for ninety percent of the § 112(c)(6) pollutants are subject to MACT standards regardless of whether they are "major." 42 U.S.C. § 7412(c)(6).<sup>2</sup> Section 112(c)(6) required EPA to list the categories of sources accounting for ninety percent of the enumerated pollutants by November 15, 1995 and to complete its MACT standards for all of these categories by November 15, 2000 – more than a decade ago. 42 U.S.C. § 7412(c)(6).<sup>3</sup>

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<sup>2</sup> The Clean Air Act defines a "major source" as any source with the potential to emit ten tons per year of any single hazardous air pollutant or twenty-five tons per year of any combination of hazardous air pollutants, and refers to any source that is not "major" as an "area source" as 42 U.S.C. § 7412(a)(1)-(2).

<sup>3</sup> In addition, EPA's industrial boilers standards were subject to the November 15, 2000 deadline in 42 U.S.C. § 7412(e)(1)(E), and the agency's industrial incinerators standards were subject to a November 15, 1994 standard in 42 U.S.C. § 7429(a)(D).

Sierra Club brought the present case to compel EPA to meet its § 112(c)(6) obligations after the agency missed the statute's November 15, 2000 deadline. *Sierra Club v. EPA*, 444 F. Supp.2d 46, 47-49 (D.D.C. 2006). Unable to resolve the issue, both parties sought summary judgment. *Id.* at 51-52. Rejecting EPA's claim that it should be given until 2012 to complete these obligations, "as well as defendant's argument that any faster would yield substantively or procedurally deficient rules," the Court ordered EPA to complete its § 112(c)(6) rules by December 15, 2007. *Id.* at 56, 61.

EPA agrees that to satisfy § 112(c)(6) it must issue MACT standards for industrial boilers and incinerators, and it is undisputed that these rules are not in place. Although EPA promulgated industrial incinerator rules in 2000 and industrial boiler rules in 2003, both rules were far less protective than the Clean Air Act required. In 2007, EPA was forced to seek the partial voluntary vacatur of its industrial boilers rule. EPA Mot. For Voluntary Partial Vacatur and Remand, Ex. A hereto. Shortly thereafter, the D.C. Circuit vacated the remainder of the boilers rule and the entire industrial incinerators rule as flatly unlawful. *NRDC v. EPA*, 489 F.3d 1250 (D.C. Cir. 2007).<sup>4</sup>

Following the June 2007 *NRDC* decision, EPA needed to reissue lawful standards for industrial boilers and incinerators by December 15, 2007 to satisfy this Court's March 31, 2006 Order. Claiming that it was unable to do so, EPA sought and obtained repeated extensions -- ultimately to the current January 16, 2011 deadline. EPA argued they were necessary to allow it not only to reissue the boilers and incinerators rules vacated in *NRDC* but to address two other

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<sup>4</sup> The Court's rationale had been made clear to EPA repeatedly before litigation. *See* Comments of Earthjustice *et al.* on EPA's 1999 Proposed Rule For Industrial Incinerators, Ex. B hereto at 11-14; Petition for Reconsideration of EPA's 2000 Final Rule For Industrial Incinerators, Ex. C hereto; Comments of Earthjustice on EPA's 2003 Proposed Rule for Industrial Boilers, Ex. D; Petition for Reconsideration of EPA's 2004 Final Rule For Industrial Boilers, Ex. E hereto.

decisions that allegedly necessitated changes in its approach to issuing MACT rules in general, *Sierra Club v. EPA*, 479 F.3d 875 (D.C. Cir. 2007) (“*Brick Kilns*”) and *NRDC v. EPA*, 489 F.3d 1364, (D.C. Cir. 2007) (“*Plywood Plants*”). See e.g., EPA’s October 12 Motion of Consent To Amend Order Of March 31, 2006.<sup>5</sup> Although Sierra Club viewed EPA’s stated inability to meet the December 15, 2007 deadline as the result of the agency’s attempts to issue and defend unlawful standards between 2000 and 2007 rather than any decision by the D.C. Circuit, it consented to the extensions so that EPA would have ample time to issue a defensible rule. See, e.g., EPA’s March 26, 2008 Unopposed Motion To Amend Order of March 31, 2006.

After conducting an extensive information gathering and rulemaking process, the agency signed proposed replacement rules for industrial boilers and incinerators on April 29, 2010. EPA Mot. at 13. Then, on December 7, 2010 – just five weeks before the January 16, 2011 deadline and more than three and one half years after the June 2007 vacatur of its prior rules – EPA filed a new motion seeking a fifteen month extension to re-propose the rule and seek another round of public comment. EPA Mot. at 3-4. The agency does not say what it intends to include in the re-proposal, but indicates that it may wish to make changes to the final rule that are not “logical outgrowths” from the proposed rule and wants to provide a full opportunity for public comment on these unspecified changes. Mot. at 17-19. In the alternative, EPA requests a five month extension to June 15, 2011, claiming that even if it does not issue a re-proposal it may need more time to fully respond to the comments it received on the proposed rules it issued on April 29, 2010. *Id.* at 4, 21-22.

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<sup>5</sup> Notably, EPA continues to advance this same argument three years later as a reason for further extensions. Mot. at 9-10, 11-12.

## II. PRACTICAL EFFECTS OF EPA'S DELAY IN SETTING STANDARDS FOR INDUSTRIAL BOILERS AND INCINERATORS.

When EPA publicly released its proposed replacement rules for industrial boilers and incinerators in April 2010, the agency at last acknowledged some of the suffering that its decade long delay in issuing these rules has inflicted on the American public. By EPA's own estimation, the failure to establish controls on just one of the pollutants that industrial boilers emit, fine particulate matter, causes between 2,000 and 5,100 premature deaths every year. EPA Fact Sheet, Proposed Air Toxics Standards for Industrial, Commercial, and Institutional Boilers and Process Heaters at Major Source Facilities (2010), Ex.F hereto, at 2-3; EPA Fact Sheet, Proposed Air Toxics Standards for Industrial, Commercial, and Institutional Boilers at Area Source Facilities (2010), Ex. G at 3. It also causes, according to EPA, nearly 3,200 non-fatal heart attacks, nearly 3,400 hospital and emergency room visits, more than 35,000 cases of aggravated asthma, and more than 260,000 missed days of work. *Id.* Although EPA has never quantified the health damage caused by its delay in controlling industrial boilers' and incinerators' emissions of mercury and other toxic pollutants, the agency's data indicate that these categories emit, *inter alia*, eleven tons of mercury, more than 5000 tons of lead and other toxic metals, and more than 1,270 grams of dioxins each year.<sup>6</sup>

According to EPA's numbers, the agency's ten-year delay in issuing emission standards for industrial boilers and incinerators has caused between 20,000 and 51,000 premature deaths, hundreds of thousands of aggravated asthma cases, and millions of missed work days. It also has

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<sup>6</sup> See EPA, Methodology for Estimating Cost and Emission Impacts for Industrial, Commercial, and Institutional Boilers and Process Heaters, National Emission Standards for Hazardous Air Pollutants – Major Source (April 15, 2010), App. B, Ex. H hereto at 8.

allowed the release of 110 tons of mercury and 50,000 tons of other toxic metals into the environment.

**III. SECTIONS 112(c)(3), 112(k)(3)(B), AND EPA’S RULE FOR SEWAGE SLUDGE INCINERATORS.**

Sections 112(c)(3) and 112(k)(3)(B) require EPA to list and regulate area sources that account for ninety percent of the thirty “urban” hazardous air pollutants, those EPA identified as presenting the greatest threat to public health in the largest number of urban areas. Mot. at 14-15. This Court’s March 31, 2006 Order required EPA to complete all of the rules necessary to satisfy these provisions by June 15, 2009. *Sierra Club*, 444 F. Supp.2d at 61. Like the deadline for § 112(c)(6), this deadline was extended several times with Sierra Club’s consent, ultimately to January 16, 2011. The only remaining categories subject to the § 112(c)(3) deadline are sewage sludge incinerators and area source boilers (which are also subject to the § 112(c)(6) deadline). Mot. at 3-4.

EPA did not attempt to collect the emissions information necessary to promulgate regulations for sewage sludge incinerators until October 23, 2009, and did not sign a proposed rule for them on September 30, 2010. Tsirigotis Dec. at ¶ 43. The agency now claims that it may not be able to complete responses to the eighty comments it received on the proposed rule by the current January 16, 2011 deadline, and seeks a six month extension to July 15, 2011. Mot. at 22.

EPA has estimated that the 218 sewage sludge incinerators operating in the United States emit more than three tons of mercury, more than three tons of cadmium, and more than six tons of lead each year. EPA, *Estimation of Baseline Emissions From Existing Sewage Sludge Incineration Units* (June 2010), Ex. I at 1.

## ARGUMENT

### **I. EPA HAS NOT JUSTIFIED ITS REQUEST FOR A FIVE MONTH EXTENSION OF THE JANUARY 16, 2011 DEADLINE FOR COMPLETING ITS OVERDUE § 112(c)(6) RULES.**

#### **A. EPA Has Not Satisfied The Test For An Equitable Extension.**

EPA claims to have just discovered that “it “may not be able to adequately complete” its response to comments by the current January 16, 2011 deadline. Mot. at 21. The agency requests a five month extension, to June 15, 2011. *Id.* at 21-22.

EPA is correct that “the sound discretion of an equity court does not embrace enforcement through contempt of a party’s duty to comply with an order that calls him to do an impossibility.” EPA Mot. At 16 (*quoting Sierra Club*, 444 F. Supp.2d at 52 (*quoting NRDC v. Train*, 510 F.2d 692, 713 (D.C. Cir. 1975))). “It would be unreasonable and unjust to hold in contempt a defendant who demonstrated that he was powerless to comply.” *Train*, 510 F.2d at 713. However, EPA “bears ‘a heavy burden to demonstrate the existence of an impossibility.’” *Sierra Club*, 444 F. Supp.2d at 53 (emphasis added) (*quoting Alabama Power Co. v. Costle*, 636 F.2d 323, 359 (D.C. Cir. 1979))). Further, the test for “impossibility” is not whether an agency – having waited until a few weeks before a statutory or court-ordered deadline – can show that it is not “currently” able to meet the deadline, Tsirigotis Dec. at ¶ 40. Such a test would enable agencies to opt out of compliance with court-ordered deadlines at their convenience just by not taking the steps necessary to meet them and then, at the last minute, pleading impossibility. In evaluating impossibility claims, courts carefully scrutinize agency conduct leading up to a missed deadline to determine whether the agency “was powerless to comply,” *Train*, 510 F.2d at 713 (emphasis added), and “has exercised ‘utmost diligence’ in its efforts to comply.” *Sierra Club*, 444 F. Supp.2d at 53 (emphasis added) (*quoting Train*, 510 F.2d at 713).

Here, EPA has not even claimed that it was powerless to comply. At most, the Tsirigotis declaration states that, now – five weeks before the January 16 deadline – EPA is not “currently” in a position to complete its responses to comments by that deadline. That assertion does not even speak to the relevant test: whether EPA could or could not have completed the rulemaking if the agency had exercised “utmost diligence” in the three and one half years that the existing deadline has already provided.

Further, the text of the Clean Air Act makes clear that Congress viewed two years as ample time to complete multiple MACT rules from start to finish. Section 112(e)(1)(A) required EPA to complete more than forty MACT rules in the two years November 15, 1990 and November 15, 1992, during which time § 129(a)(1)(B)-(C) also required the agency to complete MACT rules for large municipal waste incinerators, small municipal waste incinerators, and medical waste incinerators. 42 U.S.C. § 7412(a)(1)(A); § 7429(a)(1)(B)-(C). Section 112(e)(1)(E) required EPA to complete approximately 100 MACT rules in ten years, a pace requiring the completion of twenty MACT rules every two years for the entire decade. 42 U.S.C. § 7412(e)(1)(E). Further, § 112(c)(5) expressly provides two years to issue a MACT standard for any category listed after 2000. 42 U.S.C. § 7412(c)(5). EPA does not claim that this two year time period provided by Congress is too short, nor would such a position be tenable. Where Congress had made clear how long it intends a rulemaking to take, claims that such time period is too short do not demonstrate “impossibility” “but rather a difference in rulemaking philosophy from that evinced by Congress.” *Sierra Club*, 444 F. Supp.2d at 54 (*quoting State v. Gorsuch*, 554 F. Supp. 1060, 1064 (S.D.N.Y. 1983)). *See Sierra Club v. Gorsuch*, 551 F. Supp. 785, 788-789 (N.D. Cal. 1982) (“the EPA envisions a level of thoroughness and scientific certainty not

within the contemplation of Congress at the time it mandated the regulation of hazardous air pollutants.”).

Finally, EPA’s course of conduct demonstrates that far from “using ‘utmost diligence’ in its efforts to comply,” the agency adopted a rulemaking approach involving extensive discretionary delay. EPA Mot. at 12-13. EPA chose to collect information for the industrial boilers rule in two separate phases, a wholly discretionary decision that caused its information collection process to go on for more than two years. *Id.* See Tsirigotis Dec. at ¶¶16-21. EPA does not assert that its two-phase information gathering approach was necessary or that the agency could not have obtained equally valid data through a far more expeditious single-phase approach. EPA also chose not to ask the Office of Management and Budget (OMB) to waive its review of the agency’s information collection requests, even though OMB review alone consumed between six and eight months by EPA’s account. *Id.* The agency offers no explanation at all for its failure to seek a waiver of the lengthy OMB review process.<sup>7</sup>

**B. EPA Has Not Shown That It Cannot Currently Complete The Overdue Rules By January 16, 2011.**

Because EPA has not proved or even asserted that it was impossible to comply with the January 16, 2011 deadline in the three and one half years already provided, the Court should not entertain any claim that EPA cannot “currently” meet this deadline. As shown above, such claims do not meet the standard for demonstrating impossibility and provide no basis for the Court to grant any additional equitable extension of the statutory deadline. *See Alabama Power,*

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<sup>7</sup> Although EPA claims OMB review is required by the Paperwork Review Act (PRA) and “is a time-consuming process by design,” EPA Mot. at 12, the agency neglects to mention that statute provides for waiver of OMB review where the normal review process “is reasonably likely to cause a statutory or court-ordered deadline to be missed.” 44 U.S.C. § 3507(j)(2).

636 F.2d at 359 (equitable deadline extensions only appropriate where EPA has met its burden of proving impossibility). Should the Court consider it, however, EPA's motion also fails to prove that it is impossible even "currently" for the agency to issue its overdue rules by January 16, 2011.

First, only Mr. Tsirigotis states that EPA cannot meet the January 16 deadline. Tsirigotis Dec. at ¶ 40. EPA itself never makes or even endorses that statement, and merely speculates that it "may" not be able to do so. EPA Mot. at 21. EPA, not Mr. Tsirigotis, is the party before this Court. Although EPA may offer Mr. Tsirigotis' declaration in support of its litigation position, the agency must at a minimum assert the facts necessary to carry its heavy burden of proof. It is in no way sufficient for the agency to equivocate that compliance "may" not be able to meet the deadline while attempting to rest on a stronger conclusion by someone else.

Second, Mr. Tsirigotis's declaration provides only the unexplained and unsupported assertion that the agency needs more time to complete its response to comments. Tsirigotis Dec. at ¶¶ 5, 36, 40. Although Mr. Tsirigotis claims that EPA has "spent considerable time reviewing" the comments already and has "been working diligently to review and evaluate [them] since late August," *id.* at ¶ 34, ¶ 36, he does not say how much of the response to comments process is still unfinished and provides no reason to believe that process cannot be completed by January 16. For its part, EPA deemphasizes the response to comment process, stating that it has "completed its initial review ... and is now in the process of reevaluating the substance of some aspects of its proposals." Mot. at 12. It is well established that EPA's desire for further analysis and deliberation does not demonstrate impossibility. *Sierra Club*, 444 F.

Supp.2d at 56 (“courts evaluating claims of impossibility generally have rejected claims that additional time is needed to ensure substantively adequate regulations”).<sup>8</sup>

Third, although this Court plainly emphasized the importance of resource allocation issues to deadlines in its previous decision, 444 F. Supp.2d at 57-58, EPA’s motion and declaration fail to address the issue. Neither EPA nor Mr. Tsirigotis indicates how many employees and contractors are working on the job and whether more could be deployed. By failing to show or even claim that it has deployed all possible resources toward meeting the existing deadline, EPA precludes the Court from evaluating whether the agency is using “‘utmost diligence’ in its efforts to comply,” *Train*, 510 F.2d at 713. *See Sierra Club*, 444 F. Supp.2d at 57 (“it is inappropriate for an agency to divert to purely discretionary rulemaking resources that conceivably could go towards fulfilling obligations clearly mandated by Congress”); *NRDC v. Reilly*, 797 F. Supp. 194, 197 (E.D.N.Y. 1992) (“shifting resources in response to statutory requirements and court orders is commonplace for EPA”) (*quoting Sierra Club v. Thomas*, 658 F. Supp. at 174).

Fourth, the only actual evidence relevant to timing that EPA does provide – the number of comments it received – confirms that completing the response to comment process by January 16 is well within EPA’s ability. EPA emphasizes that it received approximately 4,800 “individual comments” (discounting about 50,000 “mass mailings”) on its industrial boilers and incinerators rules when the comment period closed on August 23, 2010. Mot. at 14, 21;

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<sup>8</sup> Allowing agencies to convert conclusory assertions into “proof” of impossibility merely by placing them in a declaration would effectively saddle plaintiffs with the burden of proving agencies can comply with a deadline. *See Sierra Club v. Ruckelshaus*, 602 F. Supp. At 899 (rejecting EPA effort to shift burden of proof to plaintiffs). Moreover that burden would be virtually insurmountable in cases like the present one where EPA provides nothing but a conclusory assertion and no basis for plaintiffs or the Court to evaluate it.

Tsirigotis Dec. at ¶¶ 4, 32-34, 40. By January 16, however, EPA will have had almost five months to respond to these comments. In other rulemakings, EPA has responded to far more comments in similar or shorter time periods.<sup>9</sup> For example, EPA responded to more than 400,000 comments including approximately 19,000 individual comments on its greenhouse gases tailoring rule in four and one half months between the close of its comment period on December 28, 2009 and the signature of its final rule on May 13, 2010. 75 Fed. Reg. 31514, 31518, 31,606 (June 3, 2010). See <http://www.regulations.gov> (Docket for GHG Tailoring rule, EPA-HQ-OAR-2009-0517, contains 19,532 public submissions). Similarly, EPA responded to more than 380,000 comments including 11,000 individual comments on its greenhouse gases endangerment finding in a period of five and one half months between the close of the comment period on June 23, 2009 and promulgation on December 6, 2009. 74 Fed. Reg. 66494, 66500 (December 15, 2009). EPA also evaluated and responded to more than 12,000 individual comments on its 2008 National Ambient Air Quality Standards for ozone (“2008 Ozone NAAQS”) in approximately five months from the close of its comment period on October 15, 2007 to promulgation on March 12, 2008. 73 Fed. Reg. 16436, 16511 (March 27, 2008). See <http://www.regulations.gov> (Docket for the 2008 Ozone NAAQS Rule, EPA-HQ-OAR-2005-0172, contains 12,742 public submissions).

**C. EPA Has Not Proved That It Cannot Complete The Overdue Rules Before June 15, 2011.**

Even if EPA had met its burden of proving that compliance with the January 16 deadline was impossible, *but see supra* at 7-9, the agency would still have to prove that the new June 15

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<sup>9</sup> Although EPA claims it did not anticipate the complexity of the comments it received, Mot. at 21, the agency provides no reason to believe that this body of comments is more complex than those it has received on other major air rules.

date it requests reflects “utmost diligence” and that a more expeditious schedule would be “impossible.” *Train*, 510 F.2d at 713. *See Sierra Club*, 444 F. Supp. 2d at 58 (rejecting EPA’s proposed schedule where the agency failed to prove that the faster schedule proposed by plaintiffs was “impossible”). Here again, EPA has not carried its heavy burden of proof.

EPA proffers only Mr. Tsirigotis’ “estimate” that “it would take approximately five more months,” Tsirigotis Dec. at ¶ 5, without providing any explanation or support for this estimate in terms of the actual tasks remaining, resources deployed, or resources available. *See supra* at 10-11. Nowhere does EPA even attempt to explain why more than nine months are needed to respond to approximately 4,800 comments on this rulemaking even though EPA has recently demonstrated the ability to review and respond to more than twice that number of comments in far shorter time periods. *See supra* at 11-12. In short, Mr. Tsirigotis’ “estimate” that the agency needs another five months does not demonstrate that it would be “impossible” for EPA to complete its overdue rules sooner and lends no support to the agency’s motion for a five month extension.

## **II. EPA HAS NOT JUSTIFIED ITS REQUEST FOR A FIFTEEN-MONTH EXTENSION OF THE JANUARY 16, 2011 DEADLINE FOR COMPLETING ITS OVERDUE § 112(c)(6).**

Although EPA concedes that it could “fully complete” its obligations under § 112(c)(6) in five months, Mot. at 21, the agency states that it would prefer a fifteen month extension, to April 13, 2012.

As noted above, even if EPA had met its burden of proving that compliance with the existing January 16 deadline was impossible – which it has not, *see supra* at 7-9 – the agency would still have to prove that the new schedule it seeks reflects “utmost diligence” and that a more expeditious schedule would be “impossible.” *Train*, 510 F.2d at 713. *See Sierra Club*, 444

F. Supp. 2d at 58 (rejecting EPA's proposed schedule where the agency failed to prove that a faster schedule was "impossible"). Here, having conceded that it can complete the overdue rules in five months, the agency cannot satisfy the heavy burden of proving that it is impossible to do so in less than fifteen months.

EPA argues that another round of notice and comment could improve the rule and would serve the public interest. EPA Mot. at 3, 18-19. As this Court has explained, however, claims "that additional time is needed simply improve the quality or soundness of the regulations to be enacted" do not suffice. *Sierra Club*, 444 F. Supp.2d at 53. Where Congress has enacted a mandatory deadline for agency action, "it is unseemly for the Administrator to assert that she is vested with discretion to balance the need for prompt regulation against the need for informed standards." *Id.* at 54 (*quoting State v. Gorsuch*, 554 F.Supp. at 1064).

EPA also hints that if this Court does not give it time to repropose its overdue rules and take further public comment, the agency might issue final rules that are not "logical outgrowths" from its proposed rules and are therefore vulnerable to procedural challenges. EPA Mot. at 3, 17-19. EPA made similar arguments on summary judgment, claiming that a schedule shorter than the one it proposed "would result in 'rules that fall short of meeting the substantive requirements of section 112(c)(6) ... or the applicable procedural requirements'" and that "it 'is of paramount importance' that it be afforded sufficient time to promulgate 'sound regulations that will survive judicial review.'" *Sierra Club*, 444 F. Supp.2d at 55 (*quoting Def. Opp.* at 12, 13, 19). The Court rejected those arguments, *id.* at 57, and the ones the agency raises now have even less merit. Here, EPA merely suggests that it might choose to make changes to the final rule that might not be logical outgrowths from the proposal. EPA does not claim that it needs to

make such changes or will make them.<sup>10</sup> Further, if EPA does make such changes, it will be the agency's discretionary decision – not this Court's order – that results in a final rule that is not a logical outgrowth from the proposal.

EPA argues that because the D.C. Circuit might vacate a final rule that was not a logical outgrowth from the proposal – forcing EPA to begin the entire process anew – the fifteen month delay it seeks would actually cause its overdue rules to be implemented sooner. Mot. at 17-19. That is merely another way of phrasing EPA's claim that more time is needed to promulgate sound regulations. *See Sierra Club*, 444 F. Supp.2d at 57. Further, EPA ignores Clean Air Act § 307(d)(7)(B), which provides that only objections to a rule that were raised during the public comment period can be raised in court. 42 U.S.C. § 7607(d)(7)(B). *See National Ass'n of Clean Air Agencies v. EPA*, 489 F.3d 1221, 1232 (D.C. Cir. 2007) (“even where ‘the ground for [an] objection arose after the period for public comment, ... the petitioner must first seek a proceeding for reconsideration. Only then may petitioner seek judicial review.’”) (*quoting Appalachian Power Co. v. EPA*, 249 F.3d 1024, 1055 (D.C. Cir. 2001)). Section 307(d)(7)(B) makes clear that even if EPA does issue a final rule that is not a logical outgrowth of its proposal – although the agency has provided no proof that it will need to do so – objections to the change will not lead to vacatur of the rule or otherwise delay its implementation.

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<sup>10</sup> The Tsirigotis declaration concedes (at ¶ 35) that EPA has not actually determined whether it wishes to make any significant changes to the final rule. Although Mr. Tsirigotis identifies three changes EPA may possibly wish to make in a re-proposal – changing some subcategories, adding standards for boilers that combust solely non-hazardous secondary materials, and revising the scope of its standards for industrial incinerators – he does not claim that EPA needs to make any of these changes. Nor does Mr. Tsirigotis state that, should EPA conclude that such changes are desirable, it could not make them in future rulemakings after its long overdue rules for industrial boilers and incinerators have been completed.

Finally, EPA argues that reconsideration proceedings under § 307(d) are “not the appropriate path here” because they are “time-consuming and prolong[] uncertainty as to what the final standards will be even as regulated entities are planning the actions necessary to come into compliance.” EPA Mot. at 20. The test is not whether, as a policy matter, re-proposing a rule is preferable to reconsidering it. Rather, the test is whether EPA has carried its heavy burden of proving that completing its overdue rules without re-proposing them is “impossible.” *Sierra Club*, 444 F. Supp.2d at 58 (“this case devolves to a single issue: whether defendant has met the ‘heavy burden’ of demonstrating that it would be impossible to comply with the plaintiff’s proposed schedule”) (quoting *Alabama Power*, 636 F.2d at 359). The agency has not shouldered that burden, and its alleged policy concerns about the § 307(d) reconsideration process add nothing relevant to its arguments. Because EPA can always revise its final rules in the future if it wishes to do so, the agency does not need to further flout the mandatory deadline in § 112(c)(6) to pursue its policy goals.

**III. EPA HAS NOT JUSTIFIED ITS REQUEST FOR A SIX MONTH EXTENSION OF THE JANUARY 16, 2011 DEADLINE FOR COMPLETING ITS OVERDUE § 112(c)(3) OBLIGATIONS FOR SEWAGE SLUDGE INCINERATORS.**

Claiming concern that it may not be able to respond to eighty (80) comments on its rule for sewage sludge incinerators by the January 16, 2011 deadline, EPA requests a six month extension of that deadline to July 15, 2011. Mot. at 22. EPA has had more than four and one half years – since this Court set a deadline for EPA to complete its § 112(c)(3) obligations in its Order of March 31, 2006 – to promulgate this rule. The agency does not even claim that it was impossible to complete the job in that time period or that it was acting with utmost diligence. Indeed, although EPA argues that its information-gathering process was delayed to some extent (Mot. at 14-15; Tsirigotis Dec. at ¶ 43), the agency admits that it did not even send out an

information collection request for sewage sludge incinerators until October 2009, three and one half years after this Court's March 31, 2006 Order. *Id.* Accordingly, EPA has not met the established standard for obtaining a further equitable extension of the court-ordered deadline. *See supra* 7-8.

For the reasons given above, EPA's claim that it may not be able to respond to eighty comments by January 16 deadline, Mot. at 22, does not show that it was impossible to issue in the last four years and thus does not meet the standard for demonstrating impossibility. *See supra* at 9 (citing *Alabama Power*, 636 F.2d at 359 (equitable deadline extensions only appropriate where EPA has met its burden of proving impossibility)). In any event, the agency's stated "concerns" about whether it can respond to eighty comments by January 16 (Mot. at 22) are speculation, not proof.

Mr. Tsirigotis' claim (at ¶ 43) that the agency cannot respond to all eighty comments – a claim EPA neither repeats nor endorses – says nothing about what tasks EPA has completed, what tasks remain, or why the remaining tasks cannot be completed by January 16. Further, neither EPA's motion nor Mr. Tsirigotis demonstrate that the agency already has deployed all possible resources on the completion of this overdue statutory obligation. *See supra* at 11 (citing *Sierra Club*, 444 F. Supp.2d at 57 ("it is inappropriate for an agency to divert to purely discretionary rulemaking resources that conceivably could go towards fulfilling obligations clearly mandated by Congress")). Moreover, the notion that EPA cannot respond to eighty comments in forty-five days (less than two comments per day) is directly refuted by the agency's demonstrated ability to respond to more than 10,000 comments in five months (more than sixty-five comments per day). *See supra* at 11-12.

Finally, even if EPA had demonstrated that compliance with the January 16 deadline was impossible – which it hasn't – the agency has not carried its burden of showing that the July 15 deadline it now seeks reflects the fastest possible compliance schedule. In particular, EPA does not claim and cannot credibly claim that it is impossible to completely respond to eighty comments in less than seven and one half months.

### CONCLUSION

For the reasons given above, EPA's motion to amend this Court's Order of March 31, 2006 should be denied.

DATED: December 24, 2010

Respectfully submitted,

/s/ James S. Pew

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ARGUMENT HELD FEBRUARY 23, 2007

IN THE UNITED STATES COURT OF APPEALS  
FOR THE DISTRICT OF COLUMBIA CIRCUIT

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NATURAL RESOURCES DEFENSE COUNCIL,	)	
	)	
et al.,	)	
Petitioners,	)	
	)	
v.	)	
	)	C.A. No. 04-1385 (and
	)	consolidated cases)
	)	
U.S. ENVIRONMENTAL PROTECTION	)	
AGENCY,	)	
	)	
Respondent.	)	

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**MOTION FOR VOLUNTARY PARTIAL  
VACATUR AND REMAND**

Respondent United States Environmental Protection Agency (“EPA”) hereby moves for voluntary vacatur and remand of the technology-based emissions limitations and compliance deadlines contained in the National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters, 69 Fed. Reg. 55,218 (Sept. 13, 2004) (“Boilers Rule”), to enable the Agency to revise the rule to conform to this Court’s recent holding in Sierra Club v. EPA, No. 03-1202 (D.C. Cir. March 13, 2007). Because EPA developed the challenged technology-based emissions limitations and standards of “No Emissions Reductions” in the Boilers Rule based on

substantially the same interpretation of section 112 of the Clean Air Act that the Court determined to be impermissible in Sierra Club, EPA requests that the Court partially remand the Boilers Rule to allow the Agency to establish emissions limitations consistent with the Court's recent opinion. Furthermore, EPA requests that the Court vacate 40 C.F.R. § 63.7495 (the compliance dates), Table 1 to Subpart DDDDD of Part 63 (the technology-based emissions limitations), and the following paragraphs in Subpart DDDDD that require compliance with the emissions limitations in Table 1 – sections 63.500(a)(1), 63.7506(a), 63.7540(a)(10)(ii).<sup>1/</sup> Vacatur of the compliance dates and challenged technology-based EPA emissions limitations is appropriate and equitable given the need for EPA to reevaluate the standards based on the Court's decision in Sierra Club.

The requested partial vacatur would eliminate the need for the Court to address the arguments raised in Argument Section II of the brief of Environmental Petitioners. EPA believes that it would still be appropriate for the Court to address the remaining issues raised by Environmental Petitioners, as well as the remaining issues raised by Municipal Petitioners. These issues are not affected by the Court's opinion in Sierra Club, and EPA is not requesting vacatur of anything

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<sup>1/</sup> The "No Emissions Reductions" standards are not codified.

other than the challenged technology-based emissions limitations and the compliance dates. Thus, there is no reason the remaining issues cannot be resolved now. Given that these issues have already been briefed and argued, resolution of these issues now would facilitate the efficient use of judicial resources.

### **ARGUMENT**

In these consolidated cases, Environmental and Municipal Petitioners challenge two distinct EPA rules. First, Environmental and Municipal Petitioners challenge several aspects of the Boilers Rule. Specifically, Environmental Petitioners challenge EPA's technology-based emissions limitations and standards (based on the Maximum Achievable Control Technology ("MACT") requirements in section 112(d) of the Clean Air Act) and the absence of such limitations where EPA determined the appropriate standard to be "No Emissions Reductions." The Petitioners also challenge EPA's establishment of alternative risk-based standards. Environmental Pets. Br., Argument Sections II and III. Municipal Petitioners challenge EPA's decision not to establish a separate subcategory for municipalities and the requirement that facilities comply with operating limits established during performance testing. Municipal Pets. Br., Argument Sections II

and III.<sup>2</sup> Second, Environmental Petitioners challenge a separate EPA final action, 70 Fed. Reg. 55,569 (Sept. 22, 2005) (“Definitions Rule”), that defines the applicability of EPA’s Standards of Performance for New Stationary Sources and Emissions Guidelines for Existing Sources governing Commercial and Industrial Solid Waste Incinerators (“CISWI”) Units, 65 Fed. Reg. 75,338 (Dec. 1, 2000).  
Environmental Pets. Br., Argument Section I.

This Court’s March 13 decision in Sierra Club addresses EPA’s establishment of MACT standards, including standards of No Emissions Reductions, for emissions of hazardous air pollutants from brick and ceramic kilns (“Brick Rule”). In its decision, the Court vacated those standards, holding that the methodology EPA used to establish those MACT standards was unlawful. Because the methodology used by EPA to establish the MACT standards in the Brick Rule is substantially the same as the methodology EPA used to establish the technology-based MACT standards in the Boiler Rule, EPA recognizes that the technology-based standards in the Boiler Rule derived using that methodology are

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<sup>2</sup> Municipal Petitioners had also challenged EPA’s analysis under the Small Business Regulatory Enforcement Fairness Act. Municipal Pets. Br., Argument Section I. However, the Court previously granted a voluntary remand to EPA of that issue to allow EPA to conduct further analysis and has stayed the compliance date contained in the Boilers Rule as to small municipal entities. Order of March 12, 2007.

inconsistent with the Court's opinion in Sierra Club, and thus should be vacated and remanded for revision consistent with that opinion.

EPA believes that vacatur is the appropriate remedy in this case. In determining whether vacatur or remand without vacatur is appropriate, this Court considers "the seriousness of the order's deficiencies (and thus the extent of doubt whether the agency chose correctly) and the disruptive consequences of an interim change that may itself be changed." Allied-Signal, Inc. v. United States Nuclear Regulatory Comm'n, 988 F.2d 146, 150-51 (D.C. Cir. 1993) (internal citations omitted). In this case, the methodology that EPA utilized in setting the challenged MACT standards in the Boilers Rule is inconsistent with the Court's decision in Sierra Club, and thus the Agency must reevaluate the basis for those standards. Thus, this is not a case where it may be likely that the Agency can keep all of the same standards with further explanation or support. Furthermore, in this case the compliance date is imminent, requiring existing sources to comply by September 13, 2007, and new sources to comply upon start-up. 40 C.F.R. § 63.7495. Leaving the compliance deadlines and challenged emissions limitations in place would have disruptive consequences for the regulated community by requiring compliance with an emissions limitation that may well be changed. It may require substantial investment in control equipment that would then have to be altered and

replaced. Thus, under the standards established by this Court's precedents, the technology-based emissions limitations and compliance deadlines should be vacated.

The requested partial vacatur would make it unnecessary for the Court to address the MACT standard issues raised in Argument Section II of Environmental Petitioners' Brief. However, EPA believes that it would be appropriate for the Court to resolve the other issues that have been briefed and argued. Environmental Petitioners' challenge to the Definitions Rule addresses a completely separate Agency action from the Boilers Rule. Nothing in the Court's decision in Sierra Club addresses the issues raised in the petitions challenging the Definitions Rule, and the determinations reached by the Agency in promulgating that Rule would not be altered by EPA's review of the challenged MACT standards on remand. Furthermore, if the Court were to hold in Petitioners' favor on that issue, the universe of facilities subject to the Boilers Rule, and thus the scope of EPA's analysis when revising the challenged MACT standards in the Boiler Rule consistent with Sierra Club, would be altered. Accordingly, resolution of that issue now will be of substantial benefit to both the Agency and the regulated community.

Environmental Petitioners' challenge to the risk-based standards for hydrogen chloride and manganese in the Boilers Rule (Environmental Pets. Br., Argument Section III) also raises fundamental issues of statutory interpretation that EPA believes would be appropriate for the Court to resolve at this time. The risk-based standards were established under a different statutory provision (i.e., Clean Air Act section 112(d)(4)) and using a completely different methodology than EPA used to establish the technology-based MACT standards at issue in Sierra Club.<sup>3/</sup> Accordingly, EPA is not requesting that those provisions (codified at 40 C.F.R. § 63.7507 and Appendix A to Part 63 Subpart DDDDD) be vacated, and those issues are ripe for a decision by the Court. Furthermore, because the issue has already been briefed and argued, the most efficient use of judicial resources would be to resolve the issue at this time.

The remaining issues raised by Municipal Petitioners are also ripe for review. Municipal Petitioners' challenge to EPA's decision not to create a separate subcategory for municipalities (Municipal Pets. Br., Argument Section II) addresses the factors that EPA must consider when creating subcategories of

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<sup>3/</sup> The alternative MACT standard for the other metals with which facilities that qualify for the risk-based standard for manganese must comply would be subject to review by EPA on remand. However, the risk-based standard for manganese remains ripe for review by this Court.

sources. It does not implicate the methodology EPA should use to develop standards within each subcategory, which is the only subject of the requested partial remand and vacatur. Similarly, Municipal Petitioners' claims regarding operating limits (Municipal Petits. Br., Argument Section III) are unrelated to the MACT standard-setting that is the subject of the remand because it relates to the appropriate method for demonstrating compliance with such standards. Again, given that these issues have been briefed and argued, it would be the most efficient use of judicial resources to resolve these issues now.

### **CONCLUSION**

EPA's motion for a voluntary vacatur and remand of the compliance deadline and MACT standards of the Boilers Rule should be granted, and the Court should resolve all other pending issues.

Respectfully submitted,

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March 26, 2007

**CERTIFICATE OF SERVICE**

I hereby certify that on this 26th day of March, 2007, I caused a true and correct copy of the foregoing Motion for Voluntary Partial Vacatur and to be served by first-class mail on the counsel listed below:

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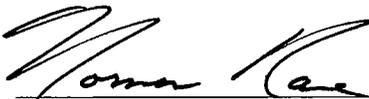
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UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

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Commercial and Industrial Solid Waste )  
Incineration Units; )  
Proposed Standards and Guidelines; )  
Proposed Rules ) Air and Radiation Docket Number  
) A-94-63  
64 Fed. Reg. 67092 )  
(November 30, 1999) )  
)  
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**COMMENTS OF SIERRA CLUB, CALIFORNIA COMMUNITIES AGAINST TOXICS  
AND DESERT CITIZENS AGAINST POLLUTION**

Sierra Club, California Communities Against Toxics and Desert Citizens Against Pollution (“Commenters”) submit the following comments on EPA’s proposed regulations for commercial and industrial solid waste incineration (CISWI) units, 64 Fed. Reg. 67092 (November 30, 1999).

**I. FLOOR ISSUES.**

**A. Existing Units.**

**1. EPA’s Technology-Based Floor Approach Is Unlawful.**

The Clean Air Act mandates floors based on “the average emissions limitation achieved by the best performing 12 percent of units.” 42 U.S.C. § 7429. This mandate requires EPA to show—and not merely assert—that its floors reasonably reflect the actual performance of the best performing twelve percent of units. *Sierra Club v. EPA*, 167 F.3d 658, 663-664 (D.C. Cir. 1999). EPA’s floors, however, do not even purport to reflect the actual performance of the best units; they reflect emission levels that the agency believes to be achievable with a particular type of control technology.<sup>1</sup>

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<sup>1</sup> It is not clear from the agency’s discussion what EPA regards as the “floors” for its standard. At one point, the agency refers to its technology choice as “the technology basis” for each floor, implying that the floor is the emission level that EPA believes to be achievable with that technology. 64 Fed. Reg. at 67099. In the very next paragraph, however, the agency refers to the “resulting emission limits associated with the MACT floors for each pollutant,” implying that the floors are the chosen technologies themselves. *Id.* (emphasis added). EPA’s failure to indicate whether it believes that the floors are the technologies themselves or the emission levels footnote continued on next page...

EPA's floor approach contravenes the Clean Air Act in several respects. First, setting floors based on the performance of a particular technology is flatly inconsistent with the Act's floor language. Quite simply, the alleged performance of a technology is not "the average emissions limitation achieved by the best performing twelve percent of units." 42 U.S.C. § 7429(a)(2) (emphasis added). EPA must set floors based on what the best performing CISWI units have achieved, not on what the agency believes a particular technology can achieve.<sup>2</sup>

Second, EPA has not claimed—far less shown—that its floors reasonably reflect the actual performance of the best units. EPA claims only that its floors reflect limits that are achievable through deployment of the technology used by the best performing units. Even if true, this claim would not show that EPA's floors reasonably reflect the actual performance of the best units, and thus would not bring EPA's floor approach within the requirements of § 129. See Sierra Club, 167 F.3d at 663 (if EPA bases floors on data other than actual emissions data, the agency must show that those data reasonably reflect the actual performance of the best units).

Third, even if EPA had claimed that its floors reasonably reflect the actual performance of the best units, the agency has not shown this to be correct. Sierra Club 167 F.3d at 663 (EPA must show and not merely assert that its floors reflect the actual performance of the best units). To begin with, EPA has never identified the best performing twelve percent of units or the emissions limitation those units achieved.<sup>3</sup> As a result, the agency cannot possibly compare its technology-based floors to such units' actual performance, and cannot possibly show that its floors reflect such performance. Moreover, as EPA is well aware, a unit's actual performance depends not just on the type of control technology it uses, but also on many other factors,

... footnote continued from previous page

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"associated with" those technologies renders the agency's attempted explanation of its floor approach difficult to understand.

<sup>2</sup> The first step in EPA's floor-setting approach was to rank control technologies according to effectiveness, based on the agency's review of "information about emission reduction in the literature and engineering judgment." Id. Second, EPA ranked the units in its database based on which control technology they used. Third, EPA "determined the technology basis of the MACT floor for each pollutant by identifying the best-performing 12 percent of units on a pollutant-by-pollutant basis." 64 Fed. Reg. at 67099. Finally, EPA established an emission level that the agency believed to be "achievable" with the chosen technology. That level was the "maximum concentration of emissions reported for the given pollutant/control combination"—i.e., apparently, the very worst emissions test reported.

<sup>3</sup> Although EPA claims that it "determined the technology basis of the MACT floor for each pollutant by identifying the best-performing 12 percent of units on a pollutant-by-pollutant basis" (64 Fed. Reg. at 67099 (emphasis added)), EPA did not identify the best performing units. Instead, the agency simply chose a particular technology, and declared that the best performing units were the units that used that technology. The agency then declared that that technology—i.e. the very technology EPA had chosen in the first place—is the technology used by the best performing units. In short, the agency's claims to have identified the best performing units and the technology that those units deploy both rest on circular reasoning.

including the materials being burned, pollution prevention measures, and combustion conditions (which in turn vary with the type of combustor and the manner in which it is run). Thus, the alleged performance of a control technology alone cannot possibly give a reasonable indication of the performance of the best units.

Fourth, EPA's floor approach virtually guarantees that its floors do not reasonably reflect the actual performance of the best units. The emission limits that EPA "associated" with the chosen technologies was the "maximum concentration" reported for that technology—i.e., apparently, the worst emission test result for each pollutant/control technology combination. Quite simply, the worst emissions test result for any unit using a particular technology does not reasonably reflect the actual performance of the "best performing" units.<sup>4</sup> See Sierra Club, 167 F.3d at 663-664 (rejecting as "hopelessly irrational" EPA's attempt to characterize the worst emissions test results as reflective of the actual performance of the best performing units). If EPA were to make such an Orwellian claim, the agency would find no support in the record. Indeed, EPA's own emissions data show that the best performing twelve percent of units are achieving emission limits that are substantially better than the agency's floors. See Table 1, infra at 5.

Fifth, EPA's decision to inject its own notion of what is "achievable" into the floor analysis blatantly contravenes the Clean Air Act. EPA's discussion of its floor approach indicates that the agency did not even attempt to set floors that reasonably reflect the actual performance of the best units. Instead, EPA admits that, after choosing a technology, it "examined the emissions data for CISWI to determine achievable emission limits." 67 Fed. Reg. at 67099 (emphasis added). The Clean Air Act, however, does not direct EPA to set floors reflecting the emissions limitations that it believes to be "achievable," but rather the emissions limitations that are "achieved" by specific units—the "best performing 12 percent."<sup>5</sup> The difference between what EPA believes to be "achievable" and what the best units actually "achieved" is enormous. The first reflects a subjective judgment by the agency; the second is an objective measurement. By substituting the agency's subjective judgment for the objective measurement that § 129 requires, EPA's approach writes the floor language out of § 129 altogether.

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<sup>4</sup> Indeed, even assuming arguendo that EPA could lawfully identify the best performing 12 percent of units solely by reference to the technology they deploy, the agency would still be obliged to set floors that reasonably reflect the performance of those units. Because EPA's floors are based on the worst emissions test result for any unit using a particular technology, however, those floors do not reasonably reflect the performance of units using that technology. A fortiori, EPA's floors do not reflect the performance of the best units using the chosen technology.

<sup>5</sup> Although the Act requires EPA to determine what additional reductions are "achievable" beyond-the-floor, the Act's floor language simply mandates that all units match the performance of the best units. Obviously, "the average emissions limitation achieved by the best performing 12 percent of units" has been "achieved." Therefore, that performance level is achievable. How units that are not in the top twelve percent match the performance level of the best performing twelve percent is not EPA's concern.

Moreover, EPA's approach renders the agency's MACT standards indistinguishable from best available control technology (BACT) standards under § 111 of the Clean Air Act, which merely requires standards that:

reflect[] the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.

42 U.S.C. § 7411(a)(1). Had Congress intended this result, it need not have included the floor language in § 129 and, indeed, need not have enacted § 129 at all.

**2. EPA's Emission Standards Are Less Stringent than Required by the Clean Air Act.**

The actual floors for existing units, based on EPA's own emissions data, are set forth in Table 1, *infra*.<sup>6</sup> As Table 1 demonstrates, EPA's proposed standards for existing units are not as stringent as the Clean Air Act requires. If EPA does not believe that it has enough emissions data to represent the actual performance of individual units, or if EPA does not believe that it has data for enough units to represent the ICWI population, the agency must use its authority under § 114 of the Clean Air Act to obtain such data. *See* 42 U.S.C. § 7414(a). If EPA does not use its authority to collect more emissions data, it must be assumed that the data in the agency's database accurately reflect the performance of existing ICWI units, and the agency must promulgate final standards that are at least as stringent as the floors set forth in Table 1.

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<sup>6</sup> For each pollutant, the actual floors were calculated using the emissions test data in EPA's ICCR Emission Test Database. First, the three test runs for each unit were averaged to obtain each unit's average performance. Second, the best performing 12 percent of units in the database was identified based on average performance. Third, floors were calculated by averaging the average performance of the best performing 12 percent of units in the database.

TABLE 1 (EXISTING UNITS)

<u>HAP</u>	<u>Units</u>	<u>Actual Floors</u>	<u>EPA's Final Emissions Standards</u>
Cadmium	mg/dscm	0.0006443	0.03
CO	ppm	3.6071667	157
Dioxins <sup>7</sup>	ng/dscm	0.0035	0.37
HCl	ppm	0.5516167	62
Lead	mg/dscm	0.00387	2.1
Mercury	mg/dscm	0.00097567	0.005
NOx	ppm	20.716667	388
PM	mg/dscm	15.910	70
Sulfur Dioxide	ppm	0.8126667	20

**3. EPA's Floors for Oxides of Nitrogen and Carbon Monoxide Are Unlawful.**

EPA's floors for oxides of nitrogen (NOx) and carbon monoxide (CO), which are both unlawful for all the reasons discussed above (see *supra* at 1-4), are also unlawful for an additional reason. EPA concedes that CISWI have deployed technologies to reduce emissions of NOx and CO (combustion modification techniques for NOx and afterburners for CO), but asserts that the emissions data do not demonstrate that these technologies significantly reduce emissions. 64 Fed. Reg. at 67100. Thus, although, EPA used "information about emission reduction in the literature and engineering judgment," to evaluate the effectiveness of pollution control technology for other pollutants, the agency evaluated the effectiveness of NOx and CO control technologies—that are admittedly in use—solely on the basis of emissions test data and without regard to "information about emission reduction in the literature and engineering judgment." Further, EPA provided no reason for failing to use information in literature and engineering judgement to evaluate the control technologies for NOx and CO. Using different criteria to evaluate these control technologies is arbitrary and capricious, especially given EPA's failure to explain why it did so. Moreover, the agency's different approaches suggests that EPA deliberately used different approaches to reach different results—i.e., used actual emissions data

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<sup>7</sup> In EPA's database, the dioxin emissions data were recorded in parts per million (ppm). To provide a comparison with the agency's final dioxin standards, these results were converted to nanograms per dry standard cubic meter (ng/dscm) according to the following formula: 1 ppm = 22.4 ng/dscm. See <http://palimpsest.stanford.edu/byorg/abbey/an/an11/an11-7/an11-714.html> (citing Thompson, *The Museum Environment*, 125 (1978)).

to avoid setting floors for NO<sub>x</sub> and CO, but refused to use actual emissions data where such data would have led to more stringent floors for other pollutants.

Based on its arbitrary and capricious finding that NO<sub>x</sub> and CO controls have not been demonstrated on CISWI units, EPA determined that “the MACT floor reflects no control of these pollutants.” 64 Fed. Reg. at 67100. Accordingly EPA set floors that “represent the highest uncontrolled emission rates of [NO<sub>x</sub> and CO] in the emissions database” (*id.* (emphasis added))—effectively no floor at all. This result, and the inconsistent and manipulative means by which it was reached, contravene the Clean Air Act. Further, the fact that EPA’s floor approach led the agency to conclude that there is no floor for NO<sub>x</sub> and CO—even where the agency conceded that emissions control methods are in use—underscores the irrationality of that approach.

#### **4. The Proposed Mercury Limits Are Not Too Stringent.**

EPA requests comment on whether the proposed mercury limits are too stringent. EPA set the final mercury standard at the floor level—i.e. the level that it believes to be achievable with a wet scrubber. Nonetheless, the agency expresses concern that, because wet scrubbers may not be effective in removing non-water-soluble mercury species, CISWI units that burn relatively more of these species of mercury may not be able to meet the standard solely by using a wet scrubber. 64 Fed. Reg. at 67100.

Far from suggesting that EPA’s mercury standard is too stringent, the possibility that that some units may not be able to meet the standard solely by using a wet scrubber merely reconfirms that EPA’s floor approach is not what Congress intended. As explained above, the Act requires floors based on the “average emissions limitation achieved by the best performing 12 percent of units.” This language emphasizes the best units’ actual performance—a concept that encompasses not just the control technologies used but also every other factor that affects performance, including pollution prevention measures, the waste being burned, the quality of the combustion unit, and the parameters of the combustion process. Thus, EPA’s concern—which results from the agency’s erroneous belief that all units should be able to achieve the floor levels just by employing a particular technology—is unfounded.

### **B. New Units.**

#### **1. EPA’s Technology-Based Floor Approach Is Unlawful.**

EPA’s floor approach for new units was identical to its approach for existing units, and is unlawful for all the same reasons. See supra at 1-5.

**2. EPA’s Emission Standards Are Less Stringent than Required by the Clean Air Act.**

The actual floors for new units, based on EPA’s own emissions data, are set forth in Table 2, infra.<sup>8</sup> As Table 2 demonstrates, the proposed standards for new units are not as stringent as the Clean Air Act requires. If EPA does not believe that it has enough emissions data to represent the actual performance of individual units, or if EPA does not believe that it has data for enough units to represent the ICWI population, the agency must use its authority under § 114 of the Clean Air Act to obtain such data. See 42 U.S.C. § 7414(a). If EPA does not use its authority to collect more emissions data, it must be assumed that the data in the agency’s database accurately reflect the performance of existing ICWI units, and the agency must promulgate final standards that are at least as stringent as the floors set forth in Table 2.

TABLE 2 (NEW UNITS)

<u>HAP</u>	<u>Units</u>	<u>Actual Floors</u>	<u>EPA’s Final Emissions Standards</u>
Cadmium	mg/dscm	0.0006443	0.03
CO	ppm	2.79	157
Dioxins	ng/dscm	0.0035	0.37
HCl	ppm/dscm	0.3415667	62
Lead	mg/dscm	0.00387	2.1
Mercury	mg/dscm	0.000975667	0.005
NOx	ppm	11.366667	388
PM	mg/dscm	8.0233333	70
Sulfur Dioxide	ppm	0.8126667	20

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<sup>8</sup> For each pollutant, the actual floor levels were calculated using the emissions test data in EPA’s ICCR Emission Test Database. First, the three test runs for each unit were averaged to obtain each unit’s average performance. Second, the best performing unit in the database was identified based on average performance. The floors equal the average performance of the best performing unit in the database.

### **3. EPA's Floors for Oxides of Nitrogen and Carbon Monoxide Are Unlawful.**

EPA's new unit floors for NO<sub>x</sub> and CO are unlawful for the same reasons as its existing unit floors. See supra at 5-6.

### **4. The Proposed Mercury Limits Are Not Too Stringent.**

EPA's new unit mercury limits are too weak, not too stringent, for the same reasons as its existing unit mercury limits. See supra at 6.

## **II. BEYOND THE FLOOR ISSUES**

The Clean Air Act mandates that EPA "shall" establish emissions standards that reflect "the maximum degree of reductions" that the agency determines to be achievable 42 U.S.C. § 7429(a)(2). Thus, the Act imposes an obligation on EPA to set standards that are more stringent than the floor where additional reductions are achievable. The Clean Air Act further requires that final emission standards be based on "methods and technologies for removal or destruction of pollutants before, during or after combustion." 42 U.S.C. § 7429(a)(3). Thus the Act requires EPA to look beyond the reductions that are achievable through the deployment of control technologies, and determine whether additional reductions are achievable through methods to remove or destroy pollutants before or during combustion—i.e., pollution prevention methods and methods based on combustion technologies and techniques. If such reductions are achievable and would further reduce emissions, EPA must require them to obtain the "maximum degree of reductions." Finally, in determining what reductions are achievable, EPA must consider "non-air quality health and environmental impacts." For CISWI units, EPA must consider the effects of dioxin and mercury emissions that are deposited on land or water, bioaccumulate in food chain, and threaten the health of wildlife and humans. In particular, EPA must consider the health effects on populations that are highly exposed to these pollutants, such as subsistence fishing communities.

For both new and existing units and for all of its emission standards, EPA states that it considered only one beyond-the-floor option, a fabric filter with carbon injection and a wet scrubber. 64 Fed. Reg. at 67099, 67100. Although EPA found that this option would provide further reductions of dioxin and possibly mercury, the agency rejected it, asserting that "the incremental cost effectiveness of applying this dry/wet system is considered excessive." Id. Significantly, EPA did not state why it felt that the incremental cost effectiveness was excessive. Nor did the agency what criteria it uses to determine whether a given cost effectiveness is excessive or acceptable. Absent any such explanation, EPA's decision not to set beyond the floor standards based on the "wet/dry system" is arbitrary and capricious.

EPA also failed to consider any other beyond the floor options (although the agency requests comment on this subject). Under the Act, EPA must consider options based on banning or restricting the combustion of certain materials and on good combustion technology and good combustion techniques. See supra at 8 (discussing 42 U.S.C. § 7429(a)(3)). In particular, EPA must consider banning or restricting the combustion of any mercury-bearing waste and chlorinated plastics. It is beyond dispute that eliminating or reducing mercury in the waste stream will eliminate or reduce mercury emissions. See Letter from O'Sullivan to Porter of July

7, 1997 (Ex. A hereto); Response to Comment Document for Medical Waste Incineration Rule (Excerpt attached as Ex. B hereto). Likewise, it is beyond dispute that eliminating or restricting chlorinated plastics in the waste stream will reduce hydrogen chloride emissions. Ex. B at 7-17 – 7-18. Further, there is ample evidence that these pollution reduction methods are achievable. Therefore, the agency must set beyond-the-floor standards that reflect the additional reductions that can be achieved through these measures.<sup>9</sup>

Finally, although EPA considered cost in determining whether to set beyond the floor standards, the agency failed to consider “non-air quality health and environmental impacts,” such as the effects (discussed above) of bioaccumulated mercury and dioxins. EPA’s failure to consider these impacts contravenes the Clean Air Act.<sup>10</sup>

### III. MONITORING AND TESTING

The Clean Air Act mandates that EPA’s regulations must require the owner or operator of each CISWI unit “to monitor emissions ... as necessary to protect public health.” 42 U.S.C. § 7429(c)(1). Under EPA’s monitoring hierarchy, continuous emissions monitors (CEMS) are the first and foremost means of monitoring emissions, and the agency considers other options only when CEMs are not available or when the costs are “unreasonable.” 64 Fed. Reg. 67100 – 67101. The Clean Air Act also requires: (1) such monitoring of parameters relating to the operation of a unit and its control equipment as EPA determines to be appropriate (42 U.S.C. § 7429(c)(2)); (2) all monitoring results to be reported and made available to the public (42 U.S.C. § 7429(c)(3)); and, (3) all CISWI units to have Title V permits (42 U.S.C. § 7429(e)), a requirement of which is that owners and operators promptly report each and every deviation from emissions standards (42 U.S.C. § 7661b(b)(2)). In short, owners and operators of CISWI units must know their emission levels and compliance status at all times.

Notwithstanding the need for effective monitoring and EPA’s reiteration of its oft-stated monitoring hierarchy, the agency proposes not to require CEMs. EPA claims that HCl CEMs are too costly. This claim is based entirely on the argument that the annual operating costs are

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<sup>9</sup> Even if EPA believes that it cannot determine what emission levels are achievable through eliminating or reducing mercury-bearing waste and chlorinated plastics, the agency still should ban or restrict the combustion of mercury-bearing waste and chlorinated plastics as a separate requirement in addition to its emission standards. These measures themselves are achievable, and would reduce emissions. Therefore, it is unnecessary—and, indeed, creates an unnecessary regulatory obstacle—to condition the adoption of these measures on the agency’s ability to incorporate them into numerical emission standards. Commenters recommend the following regulatory language: “CISWI units shall not combust any materials containing mercury or chlorinated plastics.”

<sup>10</sup> EPA did consider water and solid waste impacts (the amount of extra water that would be required for wet scrubber use and the amount of additional solid waste that would be generated), but this consideration did not satisfy the agency’s obligations to consider non-air quality health and environmental impacts. The latter impacts encompass far more than extra water usage or solid waste generation including—at a minimum—the effects of bioaccumulated mercury and dioxin. See supra at 8.

approximately \$36,000, about seventy percent of the annual operating costs of a wet scrubber. The agency does not indicate, however, why \$36,000 is too costly or why seventy percent is too much. Absent some explanation, EPA's decision on this issue is arbitrary and capricious.

EPA also claims that CEMs for particulate matter (PM) and mercury "have not been demonstrated in the United States for the purpose of determining compliance." *Id.* at 67100. This claim is puzzling at best. Is the agency attempting to distinguish between CEMs that have been demonstrated for the purpose of compliance and those that have been demonstrated for some other purpose? If so, what is the basis for this distinction? If a CEM has been demonstrated to be effective, it should be used to determine compliance. Absent some explanation, EPA's rejection of CEMs on the grounds that they have not been demonstrated "for the purpose of determining compliance" is arbitrary and capricious.

Yearly stack testing, the only emissions monitoring that EPA has proposed, will not protect public health, as required by § 129(c)(1). EPA claims that these tests will "ensure on an ongoing basis, the air pollution control device is operating properly and that its performance has not deteriorated." 64 Fed. Reg. at 67101. Accepting this claim *arguendo*, the mere fact that a pollution control device is operating properly on one day out of the year does not guarantee that it is functioning properly (or at all) on other days. Proper functioning requires the device to be turned on and properly operated, requirements that are elementary but often flouted. Moreover, even if a facility's air pollution control device is turned on and functioning, other factors—unrelated to the performance of the control device—may still cause the facility to exceed emission standards. In short, yearly stack testing can only ensure that a pollution control device is capable of functioning, it cannot ensure that facilities will meet emission standards continually or even consistently. Therefore, yearly stack testing does not satisfy § 129's requirement for emissions monitoring that is protective of public health. If CEMs are, in fact, too costly or otherwise unavailable, EPA should require other types of periodic emissions testing. In particular, EPA should require the use of portable emissions analyzers to test emissions at periodic intervals. These analyzers are affordable and have been demonstrated to be effective. Periodic emissions testing, although not as good as continual emissions monitoring, would significantly improve the quality of emissions data available to EPA and the public.

Because parameter monitoring is not emissions monitoring, EPA's proposed parameter monitoring requirements cannot—as a statutory matter—remedy the agency's failure to provide emissions monitoring that is adequate to protect public health. Compare 42 U.S.C. § 7429(c)(2) with 42 U.S.C. 7429(c)(3). Nonetheless, effective parameter monitoring could help to fill the gap as a practical matter. Unfortunately, EPA's parameter monitoring requirements appear to be of little value in determining compliance, and may be unlawful. EPA states that it selected parameters to monitor "that indicate the proper operation of a wet scrubber and that can be monitored continuously at a reasonable expense," yet the agency does not indicate what these parameters are. EPA also states that the maximum and minimum operating parameters are established by determining "what range of operating parameter values represents good operation of the unit and control device and is necessary to achieve compliance with the proposed emission limits." Yet the agency does not even claim that a unit that stays within this range is also in compliance with its emission standards. Nor does the agency claim that failure to stay within these ranges constitutes an enforceable violation. Only if the right parameters are monitored and

only if the ranges for those parameters are correlated directly (i.e. through emissions test data) with emission limits can parameter monitoring be effective.<sup>11</sup> If operating within EPA's chosen parameters does not equal compliance, (and if deviating from those parameters does not equal non-compliance), parameter monitoring is of little use as a compliance tool.

More problematically, the proposal implies that operation within EPA's chosen ranges will be treated as compliance—even though a correlation between the two has not been demonstrated. If this were the case, EPA's range of operating parameters would constitute a different set of de facto emissions standards that does not even purport to comply with the Act's stringency requirements.

In short neither EPA's emissions monitoring requirements nor its operating parameter monitoring requirements will protect public health or allow owners and operators to promptly report deviations, as required by § 503.

Finally, EPA's stated purpose for its monitoring requirements raises serious concerns that these requirements will not support—and were never intended to support—citizen enforcement actions. The agency states that the purpose of its monitoring requirements is to “allow the EPA to determine whether a source is operating in compliance with the regulations.” 64 Fed. Reg. at 67100 (emphasis added). Yet the Clean Air Act plainly provides for enforcement by citizens as well as EPA. 42 U.S.C. § 7604. Given the many and serious flaws in EPA's proposed monitoring scheme, it is unlikely that even EPA will be able to enforce the agency's ICWI standards effectively. See *supra* at 9-10. For citizens, who lack EPA's authority to make inspections and require testing, enforcement will be virtually impossible. Specifically, the absence of any reliable day-to-day emissions information (or information that can be reliably correlated to emissions) will make it impossible for citizens to determine CISWI units' compliance status. By promulgating regulations that openly fail to provide for citizen enforcement—indeed, as a practical matter, preclude it—EPA will contravene the Clean Air Act and frustrate the purpose of Congress.

#### **IV. DEFINITION OF “SOLID WASTE”**

EPA has defined “solid waste” unlawfully and far too narrowly. As a result, many CISWI units will not be subject to § 129 regulations, and may not be regulated at all. Because the exempted units emit hazardous air pollutants, EPA's failure to regulate these facilities would threaten public health.

The Clean Air Act provides that solid waste shall have the meaning established by EPA pursuant to the Solid Waste Disposal Act (SWDA), which in turn defines “solid waste” as:

any garbage, refuse, sludge from a waste treatment plant, or air pollution control facility and other discarded material.

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<sup>11</sup> To improve the correlation between parameter monitoring and actual emissions, EPA should require periodic emissions testing with portable emissions analyzers.

42 U.S.C. § 6903(27) (emphasis added). See 42 U.S.C. § 7429(g)(6). The only regulatory definition of the crucial term “discarded material” that existed when § 129 was enacted—and, indeed, the only regulatory definition that exists today—is codified in EPA’s regulations for identification and listing of hazardous waste. 40 C.F.R. § 261.2. By providing that “solid waste” shall have the meaning “established by the Administrator pursuant to the SWDA,” Clean Air Act § 129(g)(6) incorporates that Part 261 definition by reference.

EPA appears to argue that because the Part 261 only applies to “hazardous” solid waste, Congress did not intend Part 261’s definition of “solid waste” to be used for regulations under Clean Air Act § 129. 64 Fed. Reg. at 67104 (citing 40 C.F.R. § 261.1(b)(1)). This argument is flatly wrong. Because the definition in 40 C.F.R. § 261.2 was the only definition of “discarded material” that existed when Congress enacted § 129, it is plainly the definition to which Congress referred in § 129(g)(6). Congress cannot be assumed to have defined “solid waste,” by reference to a regulatory definition that EPA might promulgate sometime in the future—i.e., a definition that did not even exist. EPA’s apparent belief that § 129(g)(6) was meaningless until the agency decided to breath life into it nine years later must be rejected as contrary to basic principles of statutory construction. Section 129(g)(6) must be construed to have had meaning when it was enacted, and the only possible meaning is provided by the definition in 40 C.F.R. § 261.2.

EPA’s argument for rejecting the Part 261 definition of “solid waste” finds no support in the fact that the agency chose to limit the application of that definition to hazardous solid waste. See 40 C.F.R. § 261.1(b)(1). Congress was free to use the Part 261 definition regardless of how EPA chose to limit the application of that definition in its regulations: EPA’s decisions about how to use a definition in its regulations do not govern Congress’s decisions about how to use the same definition in its legislation. Moreover the broad definition of solid waste in 40 C.F.R. § 261.2 is entirely consistent with Congress’s plain intent—established by the language and legislative history of § 129—to define “solid waste” broadly as a means to ensure that all solid waste incinerators are covered by § 129. This consistency confirms that § 129(g)(6) incorporates by reference the Part 261 definition of solid waste.

In short, the definition of “solid waste” in 40 C.F.R. § 261.2 does apply to nonhazardous solid waste for the purpose of Clean Air Act § 129. Therefore, EPA must use that definition in its § 129 regulations, and is not free to redefine “solid waste” now.

Even assuming arguendo that EPA is at liberty to redefine solid waste, the agency’s proposed definition still must be rejected as inconsistent with the SWDA and the Clean Air Act. First, the SWDA defines “solid waste” to include “discarded material,” and this term has been held to have its ordinary meaning. AMC v. EPA, 824 F.2d 1177, 1185-1186 (D.C. Cir. 1987). Accordingly, a material that has been disposed of or abandoned is still “discarded material”—and thus “solid waste,” pursuant to the SWDA—even if it is later used for some other purpose. API v. EPA, 906 F.2d 729, 740-741 (D.C. Cir. 1990) (slag from steel making process

was “discarded” even when it entered reclamation furnace).<sup>12</sup> EPA’s proposed definition of “solid waste” excludes any material that has a heat value of 5000 btu/lb and is burned to recover energy—regardless of whether it was previously “discarded.” 64 Fed. Reg. at 67105. Therefore, EPA’s proposed definition fails to give the term “discarded material” its proper meaning under SWDA, and must be rejected.

Second, the Clean Air Act provides that “solid waste” shall have the meaning established by EPA “pursuant to the Solid Waste Disposal Act.” EPA indicates repeatedly, however, that the proposed definition is solely for the purpose of Clean Air Act § 129. 64 Fed. Reg. at 67104-67105. When Congress referred to a definition established “pursuant to” the SWDA, it did not merely mean that the regulatory definition should be governed by the SWDA definition, but also that it should be promulgated under the SWDA and for the purpose of implementing the SWDA. Thus, the proposed definition, which would be established solely for the purpose of Clean Air Act regulations, would not be established “pursuant to” the SWDA. 42 U.S.C. § 7429(g)(6). Moreover, Congress’s reference to the SWDA indicates its intent that “solid waste” have a consistent definition under the Clean Air Act and the SWDA. Inventing a special definition for the purpose of § 129 would frustrate this intent.

EPA’s excessively narrow definition of “solid waste” may also cause the agency to violate §§ 129(a)(1) and 129(g)(1) of the Clean Air Act, which require the agency to establish § 129 regulations for:

any facility which combusts any solid waste material from commercial or industrial establishments.

42 U.S.C. § 7429(g)(1) (emphasis added). Apparently following on its argument that “discarded material” is “fuel” if it has a heat value of 5000 btu/lb or more and is burned for energy recovery, the agency has stated:

EPA ... is developing regulations to limit emissions from hazardous waste combustion in boilers and industrial furnaces. In addition, EPA is also developing regulations under section 112 to limit emissions from burning fuels in stationary sources, such as boilers.

64 Fed. Reg. at 67104 (emphasis added). Because many boilers and process heaters combust waste with a heat value of at least 5000 btu/lb for energy recovery, the waste combustion in these units would qualify as fuel combustion under EPA’s proposed definition of solid waste. 60 Fed. Reg. at 67116 (definition of “solid waste”). Thus, as a result of this regulatory legerdemain, such units would escape § 129 regulation.

Contrary to EPA’s arguments, however, facilities burning “discarded material” are solid waste incineration units whether or not they are burning such material for energy recovery and whether or not such material has a heat value of 5000 btu/lb. See supra at 11-13. Therefore,

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<sup>12</sup> Only if the material is part of an ongoing manufacturing or industrial process within the generating industry is it not “solid waste.” Id. (citing AMC, 824 F.2d at 1186).

EPA's failure to regulate these facilities under § 129 would contravene the Clean Air Act, which defines boilers and process heaters that combust solid waste as "solid waste incineration units" (42 U.S.C. § 7429(g)(1)) and mandates that all such units be regulated under § 129. 42 U.S.C. §§ 7429(a)(1).

EPA attempts to deflect concerns about failure to regulate certain facilities under § 129 by claiming such facilities will be regulated under § 112:

the main purpose of this definition of nonhazardous solid waste is merely to identify which materials (when burned) are subject to regulations developed under section 129 and which materials (when burned) are subject to regulations developed under section 112.

64 Fed. Reg. at 67104. As EPA is well aware, however, many solid waste incineration units (including boilers and process heaters) would not meet major source threshold for regulation under § 112. See 42 U.S.C. § 7412(a)(1) (defining "major source" as any source emitting ten tons per year of any single hazardous air pollutant or twenty-five tons per year of any combination of hazardous air pollutants). Because these incinerators would not be regulated under § 112, the effect of the proposed definition of "solid waste" (whatever EPA's "main purpose" may have been) would be to ensure that they will not be regulated at all.<sup>13</sup>

In sum, EPA's proposed definition of "solid waste" is unlawful and dangerous. Because the emissions from incinerators are toxic whether or not the materials being combusted have a heat value of 5000 btu/lb and whether or not the incinerator is being used for heat recovery, a failure to regulate these facilities threatens public health and the environment. EPA must abandon the proposed definition. The agency must use the definition established in Part 261. In the alternative, EPA must—at a minimum—promulgate a definition that gives proper weight and effect to the term "discarded material." See supra at 12-13.

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<sup>13</sup> It is possible that area source incinerators could be regulated under §§ 112(c)(3) or 112(c)(6) of the Act, but EPA has provided no indication that these facilities would meet the requirements of those sections. Nor has EPA provided any assurance that it plans to use its authority under those sections to regulate area source incinerators. Indeed, in a recent meeting with environmental groups, EPA indicated that it deliberately planned to exploit § 112's major source threshold as a means to avoid promulgating regulations for another category of incinerators comprised entirely of area sources, sewage sludge incinerators. Specifically, the agency announced it would: (1) determine that sewage sludge incinerators—a category previously slated for § 129 regulations—are subject to § 112, not § 129; (2) find that no sewage sludge incinerators are major sources; and, (3) then decline to promulgate any regulations. In short, even if area source incinerators could be regulated under § 112, the agency's apparent willingness to engage in such cynical tactics to avoid regulation indicates that promulgation of § 112 regulations for area source incinerators is highly unlikely.

## V. FAILURE TO REGULATE DRUM RECLAIMER INCINERATORS AND PARTS RECLAIMER INCINERATORS.

Based on the Incinerator Working Group's Regulatory Alternatives Paper (September 8, 1998) ("September RAP"), it appears that more than 1500 CISWI units are operating in the United States. September RAP (Ex. C hereto) at 18-24. Nonetheless, EPA expects that the proposed rule to affect a maximum of only 116 units. 64 Fed. Reg. at 67107. The difference of approximately 1400 units appears largely to reflect a decision by the agency not to regulate approximately 1350 parts reclaimer incinerators and fifty-five drum reclaimer incinerators. See Ex. C at 22.

Parts reclaimer incinerators and drum reclaimer incinerators, by EPA's own description, combust solid waste—the residue in steel containers and the coatings on various types of metal parts. Ex. C at 41. See supra at 11-14 (regarding definition of "solid waste") Further, the steel containers and metal parts that are placed in these incinerators may also be solid waste, although EPA's description of this category leaves that issue unclear.

Because the residue and coatings burned in parts reclaimer incinerators and drum reclaimer incinerators is solid waste (and because the drums and parts that are placed in these incinerators may also be solid waste), these facilities are CISWI units and must be subject to EPA's CISWI regulations. Accordingly, EPA's failure to regulate these units under its CISWI regulations would be unlawful. In addition, EPA's failure to explain its decision not to regulate parts reclaimer incinerators and drum reclaimer incinerators would be arbitrary and capricious.

EPA's apparent decision not to regulate drum reclaimer incinerators under § 129 is particularly disturbing.<sup>14</sup> Among the waste that is placed in these units are containers that held hazardous waste, and that still hold significant amounts of residue from that waste.<sup>15</sup> Burning this type of residue has the obvious potential to cause extremely toxic emissions. Given this potential, the agency's decision not to regulate these facilities under § 129 is reprehensible. As

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<sup>14</sup> Although EPA's proposal provides no explanation for this decision, it appears that drum reclaimer incinerators can combust the waste in any container that is "empty," as that term is defined under the SWDA. Regulatory Options Paper (Docket A-94-63, Item II-B-1) ("ROP"). Under EPA's regulatory definition, a drum is "empty" even if it still has up to one inch of residue on the bottom or (for a drum of less than 110 gallons) if it still contains residue equaling three percent of its total capacity. 40 C.F.R. § 261.7. Therefore, drum reclaimer incinerators can combust large quantities of waste that, but for EPA's definition of "empty," would qualify as hazardous waste under the SWDA.

<sup>15</sup> Even in the absence of emissions data, EPA experts have recognized that drum reclaimer incinerators emit dioxin. See EPA, The Inventory of Sources of Dioxin in the United States, (excerpts attached as Ex. D hereto) at 7-18 – 7-20. Moreover, given that the drums contain concentrated residue that (but for EPA's definition of "empty") would qualify as hazardous waste, it is likely that they emit significant quantities of many other toxins as well. Regrettably, it appears that EPA has made no effort to determine what substances are being combusted in drum reclaimer incinerators, or what substances are being emitted from the combustion process. See Ex. C at 39-40 (indicating EPA has no emissions test data for drum reclaimer incinerators).

EPA is well aware, few (if any) drum reclaimer incinerators meet the “major source” threshold under Clean Air Act § 112. Therefore, it is likely that if EPA does not regulate these facilities under § 129, the category will escape regulation altogether. See supra at 14 n.13. In short, it appears that EPA is deliberately refusing to regulate drum reclaimer incinerators, even though the agency knows that its refusal is likely to have serious effects on the environment and on people’s health.

**VI. FAILURE TO ESTABLISH STANDARDS FOR POLYCHLORINATED BIPHENYLS, POLYCYCLIC ORGANIC MATTER AND POLYAROMATIC HYDROCARBONS.**

The Clean Air Act authorizes EPA to establish numerical emission limits for substances other than those enumerated in § 129(a)(4). In this rulemaking, EPA should use that authority to establish emission limits for polychlorinated hydrocarbons (PCBs), polycyclic organic matter (POM) and polyaromatic hydrocarbons (PAHs). These are all highly toxic, persistent bioaccumulative pollutants that probably are emitted by CISWI units (including drum reclaimer incinerators and parts reclaimer incinerators). Failure to establish emission standards for these pollutants in this rulemaking would mark yet another missed opportunity to obtain the reductions in these pollutants that Congress intended. See 42 U.S.C. § 7412(c)(6). Therefore, if EPA has emissions data for these pollutants, it should use that data to establish emission standards. If EPA does not have the emissions data necessary to establish emissions standards for PCBs, POM and PAHs, the agency should use its authority under § 114 of the Clean Air Act to obtain such data.



**EARTH JUSTICE**  
LEGAL DEFENSE FUND

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**January 30, 2001**

Michael McCabe  
Acting Administrator,  
Environmental Protection Agency  
401 M. Street, SW  
Washington D.C. 20460

RE: Petition To Reconsider Regulations for Commercial and Industrial Solid Waste  
Incineration Units

Dear Mr. McCabe:

This is a petition under Clean Air Act § 307(d)(7)(B), 42 U.S.C. § 7607(d)(7)(B). The parties submitting this petition are the Louisiana Environmental Action Network, 162 Croydon Avenue, Baton Rouge, LA 70806 and the National Wildlife Federation, 506 East Liberty Street, 2<sup>nd</sup> Floor, Ann Arbor, MI 48104-2210 (collectively, "Petitioners"). By this petition, Petitioners request that EPA reconsider its regulations for Commercial and Industrial Solid Waste Incineration Units, 40 C.F.R. Part 60, Subparts CCCC and DDDD, 65 Fed. Reg. 75338 *et seq.* (December 1, 2000).

Section 307(d)(7)(B) of the Clean Air Act provides that if grounds for an objection to a rulemaking arise "after the period for public comment (but within the time specified for judicial review) and is such objection is of central relevance to the outcome of the rule, the Administrator shall convene a proceeding for reconsideration of the rule and provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed." 42 U.S.C. § 7607(d)(7)(B).

After the period for public comment on EPA's regulations for Commercial and Industrial Solid Waste Incineration Units (CIWI), EPA promulgated a definition of the term "commercial and industrial waste." 40 C.F.R. § 60.2265, 65 Fed. Reg. at 75359. EPA's proposed regulations for CIWI did not contain any definition of that term. 64 Fed. Reg. 67092, 67125 (November 30, 1999). Nor did EPA provide any indication in the proposed CIWI regulations (or the preamble thereto) that the agency intended to promulgate a definition of the term "commercial and industrial waste."

Also after the comment period, EPA promulgated a definition of "commercial and industrial solid waste incineration unit" that was significantly different than the definition of that term that EPA had proposed. Specifically, the final definition of "commercial and industrial solid waste incineration unit" incorporated the newly promulgated definition of "commercial and industrial waste." 40 C.F.R. § 60.2265; 65 Fed. Reg. at 75359. Thus, the final definition of

“commercial and industrial solid waste incineration unit” is “any combustion device that combusts commercial and industrial waste, as defined in this subpart.” *Id.* (emphasis added) The proposed definition, by comparison, was “an enclosed device using controlled flame combustion that burns solid waste or an air curtain incinerator that burns solid waste, and that is a distinct operating unit of any commercial or industrial facility.” 64 Fed. Reg. at 67125.

EPA’s definition of “commercial and industrial waste” and the agency’s changed definition of “commercial and industrial solid waste incineration unit” provide “grounds for objection” to EPA’s CIWI regulations. 42 U.S.C. § 7607(d)(7)(B). Specifically, these regulatory definitions exclude solid waste incineration units at commercial and industrial facilities that combust solid waste with energy recovery. 40 C.F.R. § 60.2265; 65 Fed. Reg. at 75359.

Excluding such solid waste incineration units from the definition of “commercial and industrial solid waste incineration unit” contravenes Clean Air Act § 129(a)(1)(A), 42 U.S.C. § 7429(a)(1)(A). Specifically, § 129(a)(1)(A) requires EPA to promulgate standards under §§ 111 and 129 for “each category of solid waste incineration units.” Solid waste incineration units at commercial and industrial facilities that combust waste with energy recovery are “distinct operating unit[s]” of facilities “which combust[] ... solid waste material from commercial or industrial establishments or the general public.” 42 U.S.C. § 7429(g)(1). Further, such incineration units are not covered by any of the exclusions set forth in § 129(g)(1). Accordingly, they are “solid waste incineration unit[s]” pursuant to § 129(g)(1), and must be regulated under § 129. 42 U.S.C. § 7429(a)(1). In particular, they must be regulated under § 129(a)(1)(D), 42 U.S.C. § 7429(a)(1)(D).

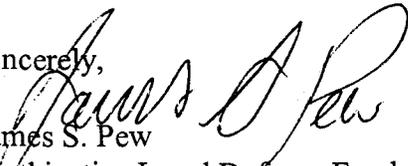
The above-described objection to EPA’s CIWI regulations is of “central relevance to the outcome of the rule.” 42 U.S.C. § 7607(d)(7)(B). Judicial review of EPA’s definitions of “commercial and industrial waste” and “commercial and industrial solid waste incineration unit,” will establish that those definitions are unlawful, and must be changed to include all solid waste incineration units operating at commercial and industrial facilities. Thus, the above-described objection will substantially change the number of solid waste incineration units covered by EPA’s CIWI regulations.

Grounds for the above-described objection to EPA’s CIWI regulations “arose after the period for public comment (but within the time specified for judicial review).” 42 U.S.C. § 7607(d)(7)(A). Specifically, they arose when EPA promulgated the final rule containing the definition of “commercial and industrial waste” and the changed definition of “commercial and industrial solid waste incineration unit.”

Pursuant to Clean Air Act § 307(d)(7)(B), you must convene a proceeding for reconsideration of the CIWI rule and “provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed.” 42 U.S.C. § 7607(d)(7)(B). “Such consideration shall not postpone the effectiveness of the rule.” *Id.*

Petitioners request a prompt response to this petition.

Sincerely,



James S. Pew  
Earthjustice Legal Defense Fund  
Attorney for Louisiana Environmental Action Network  
and National Wildlife Federation

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

_____ )	
National Emission Standards for )	
Hazardous Air Pollutants for )	
Industrial/Commercial/Institutional )	
Boilers and Process Heaters; Proposed Rule )	
)	Docket ID No.
)	OAR-2002-0058
68 Fed. Reg. 1660 )	
(January 13, 2003) )	
_____ )	

COMMENTS OF EARTHJUSTICE

**I. EPA MUST PROMULGATE § 129 STANDARDS FOR ALL UNITS THAT COMBUST SOLID WASTE.**

**A. Failure to Promulgate § 129 Standards for all Units That Combust Solid Waste Would Contravene the Clean Air Act.**

EPA's proposed regulations for "industrial/commercial/institutional boilers and process heaters" apply to industrial boilers, institutional boilers, and process heaters. 68 Fed. Reg. 1660, 1663 (January 13, 2003). An industrial, commercial or institutional boiler, according to EPA, "is an enclosed device using controlled flame combustion and having the primary purpose of recovering thermal energy in the form of steam or hot water." 68 Fed. Reg. at 1703. Such boilers do not include "waste heat boilers, which the agency defines as "a device that recovers normally unused energy and converts it to usable heat." *Id.* at 1714. A "process heater," according to EPA, "is an enclosed device using controlled flame with the unit's primary purpose being to transfer heat indirectly to process streams (liquids, gases, or solids) instead of generating steam." *Id.* at 1703.

EPA's proposed regulations do not apply to units that are subject to EPA's current standards for commercial and industrial solid waste incinerators (CISWI) or to fossil fuel-fired utility boilers — i.e., fossil fuel fired combustion units that have a heat input greater than twenty-five megawatts and that serve a generator producing electricity for sale. 68 Fed. Reg. at 1663. Nor do they apply to boilers that combust hazardous waste. *Id.*

Within the category of boilers and process heaters to which the proposed regulations do apply are a wide range of units combusting a wide range of different materials. The materials combusted in these boilers and process heaters include fossil fuels and a wide variety of waste including, *inter alia*: coke oven gas, blast furnace gas and other waste gases, wood waste, shredded tires, paper mill sludge and various other sludges, various waste oils, used creosote,

railroad ties (assumed to be treated), glue, paper, waste from recycling newspapers and magazines, and agricultural waste.

Although EPA proposes to regulate all units in the "industrial/commercial/institutional boilers and process heaters" category under § 112 of the Clean Air Act, any such unit that "combusts any solid waste material from commercial or industrial establishments or the general public (including single and multiple residences, hotels and motels)" is a "solid waste incineration unit" under § 129 of the Clean Air Act. 42 U.S.C. § 7429(g)(1). The Clean Air Act clearly mandates that all such units must be regulated under § 129. 42 U.S.C. § 7429(a)(1)(A). Because EPA must regulate such units under § 129, it may not regulate them under § 112. 42 U.S.C. § 7429(h)(2).

As EPA's description of the "industrial/commercial/institutional boilers and process heaters" category indicates, many of the units therein combust commercial and industrial waste. All such units must be regulated under § 129(a)(1)(D). EPA's failure to promulgate standards for such units in its regulations that purported to satisfy § 129(a)(1)(D) contravened the Clean Air Act and was arbitrary and capricious. EPA's continued failure to promulgate standards for such units under § 129(a)(1)(D) also represents a blatant and egregious violation of the deadline set forth in § 129(a)(1)(D) which required the agency to have promulgated regulations for all such units no later than November 15, 1994.

**B. Failure to Conduct the Promised Notice and Comment Rulemaking Would Contravene the Clean Air Act and Violate EPA Commitments.**

In its CISWI regulations, EPA sought to avoid promulgating § 129 regulations for a wide variety of solid waste incineration units — including many units in the "industrial/commercial/institutional boilers and process heaters" category for which the agency has just proposed regulations — by promulgating unlawful and arbitrary definitions of "commercial and industrial waste" and "commercial and industrial solid waste incineration unit." 40 C.F.R. § 60.2265, 65 Fed. Reg. 75338, 75359 (December 1, 2000).

Sierra Club petitioned for review of EPA's regulations under § 307(d) of the Clean Air Act. *Sierra Club v. EPA*, D.C. Cir. No. 01-1048. Among the issues raised by Sierra Club was EPA's exemption of units that combust waste for energy recovery. Non-binding statement of issues in No. 01-1048, Ex. A hereto. In addition, Louisiana Environmental Action Network (LEAN) and National Wildlife Federation (NWF) filed a petition for reconsideration with the agency. Letter from Pew to McCabe of January 30, 2001, Ex. B hereto. Their petition challenged EPA's definitions of "commercial and industrial waste" and "commercial and industrial solid waste incineration unit" — neither of which had been proposed and both of which were elements in EPA's unlawful and arbitrary exemption of units combusting waste for energy recovery.<sup>1</sup>

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<sup>1</sup> EPA had proposed a similar exemption on different grounds, and commenters pointed out that such exemption was unlawful. Comments of Sierra Club, *et al.*, Ex. C hereto. The agency then promulgated final rules advancing new argument for exempting units that combust waste for energy recovery. That argument is addressed in the petitions for agency reconsideration. Ex. A.

EPA granted the petition for reconsideration filed by LEAN and NWF, promising that it would "convene further proceedings to allow an opportunity for additional public comment" on the issues presented therein. Letter from Seitz to Pew of August 17, 2001, Ex. D hereto. In addition, the agency sought and obtained a voluntary remand in No. 01-1048 by representing to the Court and Sierra Club that, *inter alia*, the agency had granted the petition for reconsideration and that it had "decided to provide all parties interested in this rulemaking (including Petitioner and Intervenors) with the opportunity to participate in additional notice-and-comment proceedings" with respect to the definitions of "commercial and industrial waste" and "commercial and industrial solid waste incineration unit." Motion for Voluntary Remand, Ex. E hereto at 3. EPA further represented to the Court and Sierra Club that it "recognizes that the statutory date for establishing emission standards and related requirements for commercial and industrial solid waste incinerators passed in 1993" and that the agency "intends to act with all due speed in repromulgating emissions standards and related requirements for commercial and industrial solid waste incinerators." *Id.* at 4.

Based on EPA's representations, the Court granted its motion for a voluntary remand, but did not issue a formal mandate. Order of September 6, 2001, Ex. F hereto.

Although more than eighteen months have passed, EPA has not conducted the notice and comment rulemaking that it promised. Nor has the agency communicated with LEAN, NWF or Sierra Club in any way regarding that rulemaking, or otherwise indicated that it had begun the rulemaking process in any way.

Instead, EPA apparently has made the decision to move forward with regulating waste-combusting boilers and process heaters under § 112. To do so would violate the commitments that EPA made in granting the petition for agency reconsideration and in obtaining a voluntary remand from the court. Indeed, it would render those commitments a fraud on the Court and on Sierra Club, LEAN and NWF. Clearly, despite its representations, EPA was not willing to engage in any meaningful rulemaking that even considers the proper regulation of waste burning boilers and process heaters under § 129 of the Act if the agency already has determined to regulate them under § 112.

Failure to conduct a meaningful rulemaking in a timely manner would also contravene the Clean Air Act. 42 U.S.C. § 7607(d)(7)(B).

Further, if the promised notice and comment rulemaking takes place after EPA has made a decision to regulate waste burning boilers and process heaters under § 112, it necessarily would either be meaningless or would result in a huge waste of time and resources. Specifically, for the promised rulemaking to have any meaning whatsoever, EPA must actually be open to the conclusion that all waste burning units must be regulated under § 129. If EPA concluded that such units must be regulated under § 129 after having already decided to regulate them under § 112, however, the agency would have to redo the rulemaking completely to comply with § 129.

Accordingly, EPA must reverse its course now. Any further progress toward regulating waste burning units under § 112 instead of § 129 will simply waste time resources and delay promulgation of the regulations that the Clean Air Act requires.

**C. Any Distinction Based on Whether a Unit Recovers Energy From the Combustion of Solid Waste Would Be Unlawful and Arbitrary and Capricious.**

EPA does not offer any reason in the proposal for setting § 112 standards rather than § 129 standards for waste-burning units in its proposal for the “industrial/commercial/institutional boilers and process heaters” category. Instead, the agency appears to simply take for granted that it can do so — even though that very issue already has been raised in court and even though the agency has agreed that notice and comment rulemaking is necessary to address it. Because the Act requires all units combusting solid waste to be regulated under § 129, EPA’s failure to promulgate § 129 standards is unlawful, and the agency’s failure to explain its decision is arbitrary and capricious.

To the extent EPA is relying on arguments that it advanced in its CISWI rulemaking, the agency is relying on an unlawful interpretation of the statute. In its CISWI rulemaking, EPA stated that the “overall intent of the CAA provisions is that section 129 rules are to apply to devices conventionally regarded as incinerators, that is, devices burning wastes in order to destroy the wastes.” 65 Fed. Reg. at 75342/2 (emphasis added). Elaborating, the agency argued

commercial and industrial units burning materials without energy recovery are disposing of the materials, that is, they are treating such materials as commercial or industrial waste, and should be regulated ... under section 129. In contrast, commercial and industrial units burning materials with energy recovery, that is treating such materials as fuel, should be regulated under section 112.

*Id.* at 75343/1.

Boilers and process heaters that combust solid waste are solid waste incineration units subject to § 129 of the Clean Air Act regardless of whether they recover heat or energy from such combustion.

First, § 129(a)(1) of the Clean Air Act requires the EPA to “establish performance standards and other requirements pursuant to section 7411 of this title and this section for each category of solid waste incineration units.” 42 U.S.C. § 7429(a)(1)(A) (emphasis added). Section 129(g)(1) defines the term “solid waste incineration unit” to mean “a distinct operating unit of any facility which combusts any solid waste material from commercial or industrial establishments.” 42 U.S.C. § 7429(g)(1). Thus, the Clean Air Act plainly required EPA to promulgate § 129 standards for each unit that combusts any solid waste. The agency was required to promulgate standards for units combusting commercial and industrial waste by November 15, 1994. 42 U.S.C. § 7429(a)(1)(D).

Second, § 129(g)(1) shows that Congress expressly considered and rejected the notion of a broad exemption from § 129 for units that combust solid waste for energy recovery. Section

129(g)(1) broadly defines "solid waste incineration unit" and then enumerates the only exceptions for energy recovery units:

The term "solid waste incineration unit" means a distinct operating unit of any facility that combusts any solid waste material from commercial or industrial establishments or the general public...

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The term "solid waste incineration unit" does not include (A) materials recovery facilities (including primary or secondary lead smelters) which combust waste for the primary purpose of recovering metals, (B) qualifying small power production facilities, as defined in section 796(17)(C) of Title 16, or qualifying cogeneration facilities, as defined in section 796(18)(B) of Title 16, which burn homogeneous waste (such as units which burn tires or used oil, but not including refuse-derived fuel) for the production of electric energy or in the case of qualifying cogeneration facilities which burn homogeneous waste for the production of electric energy and steam or forms of useful energy (such as heat) which are used for industrial, commercial, heating or cooling purposes, or (C) air curtain incinerators provided that such incinerators only burn wood wastes, yard wastes, and clean lumber and that such air curtain incinerators comply with opacity limitations to be established by the Administrator by rule.

42 U.S.C. § 7429(g)(1) (emphasis added). By enumerating the categories of solid waste incineration units that are not covered by § 129, Congress made plain that all other categories are covered.

Third, the definition of solid waste is also broad, and encompasses waste that is burned for energy recovery. The Clean Air Act provides that the term "solid waste" shall have the meaning established by EPA pursuant to the Solid Waste Disposal Act (SWDA). 42 U.S.C. § 7429(g)(6). The SWDA, in turn, defines "solid waste" broadly to mean

any garbage, refuse, sludge from a waste treatment plant, water supply treatment plant, or air pollution control facility and other discarded material, including solid, liquid, semisolid, or contained gaseous material resulting from industrial, commercial, mining, and agricultural operations and from community activities...

42 U.S.C. § 6903((27)). The only regulatory definition of the terms "solid waste" and "discarded material" that EPA had provided under the SWDA when § 129 was enacted — and, indeed the only definition that EPA has ever provided under the SWDA — is at 40 C.F.R. § 261.2. That provision makes clear that material is "discarded material," and therefore solid waste, if it is burned or incinerated regardless of whether is burned or incinerated for energy recovery.

Finally, because § 129(g)(6) refers to the EPA definition of solid waste under the SWDA that existed at the time Congress enacted § 129 (i.e., in 1990), any subsequent attempts by EPA to narrow that definition would be irrelevant under § 129.

## II. EPA'S FLOOR APPROACH IS UNLAWFUL AND ARBITRARY AND CAPRICIOUS.

### A. After Separating Out All Units Combusting Solid Waste for Separate Regulation Under § 129, EPA Must Completely Redo The Floors for Units Combusting Fossil Fuel.

As explained in detail below, EPA must regulate all units that combust any solid waste under § 129. Thus, EPA must completely redo its standards for all such units, to bring such standards fully into compliance with all the requirements of § 129. Among other things, EPA must promulgate standards for all units that combust any solid waste, regardless of size. Further, EPA must promulgate numerical emission standards for each of the pollutants enumerated in § 129(a)(4).

In addition, because EPA must regulate units that do combust any solid waste separately from units that do not combust any solid waste, the agency must completely redo its § 112 standards for the latter. Specifically, EPA must recalculate the floors for the boilers and process heaters that do not combust any waste (and that are therefore subject to § 112 rather than § 129) by identifying the best performing twelve percent for which it has emissions information and then setting floors reflecting the average emission levels achieved by those sources. Accordingly, comment on the specific flaws in EPA's floor approach are beside the point. However, even assuming *arguendo* that EPA could choose to ignore the law by moving forward to regulate both sources that combust solid waste and sources that do not combust solid waste under § 112, the agency still would have to correct the additional flaws described in detail below.

### B. EPA's Floor Approach Contravenes § 112 and Is Arbitrary and Capricious.

It is now well established that the "floor" for EPA's emission standards under Clean Air Act § 112(d) — i.e., the statutory minimum stringency — must reflect the "emission level achieved" by the relevant best performing sources. *Cement Kiln Recycling Coalition v EPA*, 255 F.3d 855, 865 (D.C. Cir. 2001) (*CKRC*). Thus, because all of the subcategories within the Industrial/Commercial/Institutional Boilers and Process Heaters category have more than 30 sources, existing source floors for each subcategory must reflect the average emission level achieved by the best performing twelve percent of sources for which EPA has emissions information. 42 U.S.C. § 7412(d)(3). *See CKRC*, 255 F.3d at 861, 865. Floors for new sources must reflect the emission level achieved by the single best performing source in each category. 42 U.S.C. § 7412(d)(3).

Although EPA may estimate the emission levels achieved by the relevant best performing sources, it must do so reasonably and its estimates must provide an "accurate picture" of the relevant best sources' performance. *Sierra Club v. EPA*, 167 F.3d 658, 663 (D.C. Cir. 1999). As the D.C. Circuit has made very plain, EPA may not use the performance of a chosen control technology as an estimate of the emission levels achieved by the relevant best sources, where other factors also influence such performance:

we explained in [*National Lime Ass'n v. EPA*, 233 F.3d 625 (D.C. Cir. 2000)] that such an approach would satisfy the statute “if pollution control technology were the only factor determining emission levels of that HAP, 233 F.3d at 633.

*CKRC*, 255 F.3d at 863 (emphasis in original).

Here, the record makes abundantly clear that pollution control technology is not “the only factor determining emission levels” of any of the HAP that boilers and process heaters emit. For example, EPA states “[b]oilers and process heaters can emit a wide variety of compounds depending on the fuel burned.” 68 Fed. Reg. at 1671. Similarly, the agency argues

a unit without any add-on controls, but burning a fuel containing lower amounts of HAP, can have emission levels that are lower than the emissions from a unit with the best add-on controls.

68 Fed. Reg. at 1672. In addition, even within the various subcategories of boilers and process heaters that EPA has created, sources vary widely with respect to size, design and age. Likewise, even control devices of the same type (*e.g.*, fabric filters) can and do vary widely in performance, and some sources may use more than one end-of-stack control technologies or a combination of different control technologies. Finally, boilers and process heaters are operated differently; different companies require different levels of equipment maintenance, operator training and operator care. All of these factors — in addition to the variations in fuel used and the different types of control device installed — affect HAP emission levels. Thus, by attempting to base floors on the performance of chosen control technology, EPA contravenes the Clean Air Act. *CKRC*, 255 F.3d at 863-865; *National Lime Ass'n*, 233 F.3d at 633. Indeed, given that the D.C. Circuit has now ruled on this very issue twice, it appears that EPA and its lawyers are either unaware of such basic concepts as the rule of law and the separation of powers or have simply decided that the agency is above the law.

EPA argues that it could not set floors at the emission levels achieved by the best performing sources because these sources did not necessarily have the best add-on control equipment. 68 Fed. Reg. at 1672. The agency goes on to claim that the best performing units are not necessarily the “best-controlled” because they may have lower efficiency end-of-stack control equipment. *Id.* EPA completely misreads the mandate of § 112’s floor requirement — a remarkable achievement given that the D.C. Circuit has now explained that requirement three times. Floors under § 112 must reflect the emission levels actually achieved by the “best performing” sources — *i.e.*, those with the lowest emission levels — not the ones that EPA deems to be the “best-controlled”. *CKRC*, 255 F.3d at 861, 865. It does not matter how these sources achieve their superior emission levels; they may do so by burning a cleaner fuel, by being better designed or newer, by being better maintained or operated, by using better end-of-stack control technologies, or by using more than one control technology. EPA’s simple but mandatory task is to identify the relevant best performing sources — regardless of how they are achieving their superior emission levels — and set standards reflecting the average emission level these sources are achieving. Thus, EPA’s contention that floors reflecting the emission levels achieved by the best performers may not reflect what is achievable for all sources through using a chosen control technology is irrelevant. Further, EPA’s contention that floors must

reflect what is achievable through using a chosen control technology is flatly unlawful; indeed, that contention has already been rejected twice by the D.C. Circuit. *CKRC*, 255 F.3d at 861, 865; *National Lime Ass'n*, 233 F.3d at 633.

EPA goes on to argue that, because the HAP content of fuels used in different boilers and process heaters varies, floors based on the emission levels actually achieved by the best performers may not necessarily be achievable for all sources in the same subcategory. 68 Fed. Reg. at 1672. For example, EPA claims that “coal burning boilers may never be able to achieve the mercury HAP level of [a] wood-fired unit, no matter what add-on controls are used.” *Id.* (emphasis added) EPA does not assert, however, all sources would not be able to match the performance of the best performers, far less demonstrate any such assertion with record evidence. Moreover, EPA completely neglects to consider the extraordinarily high emission reduction levels that can be achieved through advanced emission control technologies (e.g., carbon injection and carbon absorption); and thus necessarily neglects to consider that it very well may be possible, for example, for coal burning units to match the mercury emissions performance of wood fired units.

In any case, floors need not be achievable for all units in a subcategory through the application of an end-of-stack control technology; the Clean Air Act requires only that floors reflect the emission levels actually achieved by the relevant best sources. *CKRC*, 255 F.3d at 861, 865. Thus, even assuming *arguendo* that some sources cannot meet floor standards through the application of any single end-of-stack control technology or any combination of end-of-stack control technologies, the Clean Air Act still would not allow EPA to set floors do not reflect the relevant best performers’ emission levels. Rather, the sources that could not meet floor levels would have to shut down or switch fuels.

EPA argues that “fuel switching was not an appropriate control technology for purposes of determining the MACT floor level of control for any subcategory.” 68 Fed. Reg. at 1672. Floors, however, must reflect the emission levels actually achieved by the relevant best performers. That mandate applies regardless of whether some sources may have to switch fuels and regardless of whether EPA believes that fuel switching is an appropriate “control technology.” As noted above, floors must not be based on any single control measure unless that measure is the only factor affecting emissions. Here, it is undisputed that ICI sources’ HAP emissions are not affected by just one factor.

### **III. EPA’S FAILURE TO SET EMISSION STANDARDS FOR EACH HAP THAT BOILERS AND PROCESS HEATERS EMIT IS UNLAWFUL AND ARBITRARY AND CAPRICIOUS.**

Regulations under § 112 of the Clean Air Act must include emission standards for each hazardous air pollutant (HAP) that a category emits. 42 U.S.C. § 7412(d). *National Lime Ass’n v. EPA*, 233 F.3d 625, 633-634 (D.C. Cir. 2000). EPA’s proposed regulations fail to comply with that mandate. Although the agency indicates that boilers and process heaters emit many different HAPs, including dioxin and a wide variety of metals (68 Fed. Reg. at 1690), the agency has proposed standards for only a few of these pollutants. Specifically, existing sources need only comply with a mercury standard, a hydrogen chloride (HCl) standard and a standard for either particulate matter (PM) standard or total metals. For new units the requirements are

similar, but also include a carbon monoxide (CO) standard. Because EPA did not set emission standards for each HAP that boilers and process heaters emit, its regulations are unlawful. 42 U.S.C. § 7412(d). *National Lime Ass'n*, 233 F.3d at 633-634.

EPA claims that PM is a surrogate for all non-mercury metals. 68 Fed. Reg. at 1671. The agency argues that: (1) the same control techniques that would be used to control fly-ash PM would also control non-mercury metallic HAPs; (2) the use of PM as a surrogate will eliminate the need for performance testing to show compliance with individual metal standards.

For a number of reasons, PM is not a valid surrogate for non-mercury metal emissions from boilers and process heaters. First, as explained above, factors other than the end-of-stack PM control technologies affect emissions of these HAPs. Accordingly, a PM standard would not reflect the metal emission levels actually achieved by the relevant best performing sources. It is now well established that EPA must set emission standards for each HAP that a category emits (*National Lime Ass'n*) and that such standards must at least match the emission levels achieved by the relevant best sources (*CKRC*). Accordingly, EPA may not use a surrogate where — as here — it results in regulations that do not include standards for each HAP or do not reflect the emission levels achieved by the best performers. For this reason, the *National Lime Ass'n* Court expressly recognized that the use of PM as a surrogate for HAP metals would be unreasonable (and therefore unlawful) if “switching fuels would decrease HAP metal emissions without causing a corresponding reduction in total PM emissions.” 233 F.3d at 639. Here, it bears emphasis that EPA admits that factors other than PM control affect HAP metal emissions.

Second, EPA has admitted in the past that PM is not a valid surrogate for semivolatile metals such as lead and cadmium. 64 Fed. Reg. 53014, 52845-52846 (September 30, 1999). Nowhere does EPA explain how that admission can be reconciled with its apparent position here that PM is a valid surrogate for such metals.

Third, EPA’s argument that that the use of PM as a surrogate pollutant for HAP metals would reduce costs do not relieve the agency of its clear statutory obligation to set standards for each HAP that a category emits. Likewise, cost concerns do not allow the agency to use an inadequate surrogate, as the agency proposes to do here.

Fourth, EPA does not explain why its only choice is either to set individual standards for each metal HAP or to use PM as a surrogate for all of them. In the past, EPA has grouped metals with similar characteristics together. *See, e.g.*, 64 Fed. Reg. at 52845-52847. Nowhere does EPA explain why that same approach could not be used here.

EPA also used CO as a surrogate for all organic compounds, arguing that CO levels are indicative of good or bad combustion. 68 Fed. Reg. at 1671. As EPA is well aware, one of the organic compounds emitted by boilers and process heaters is dioxin. *Id.* Although good combustion is one factor affecting dioxin emissions, it is by no means the only factor. As EPA is well aware, dioxin emissions also are affected by the temperature of the emissions, how quickly that temperature is lowered. In addition they are affected by the levels of chlorine in the materials that are being combusted. Further, they are affected by control devices, such as

activated carbon injection, and others. Because factors other than good combustion affect dioxin emission levels, CO is not an adequate surrogate for dioxins. *See supra* at 9.

**IV. EPA'S FINAL STANDARDS AND BEYOND-THE-FLOOR ANALYSIS ARE UNLAWFUL AND ARBITRARY AND CAPRICIOUS.**

The Clean Air Act directs EPA to consider "non-air quality health and environmental impacts" in determining the maximum degree of reduction in emissions that is achievable. 42 U.S.C. § 7412(d)(2). EPA claims that it considered "non-air quality, health impacts" (68 Fed. Reg. at 1684), but nowhere did the agency consider the non-air quality health and environmental impacts caused by the deposition, persistence and bioaccumulation of HAP metals, such as mercury, cadmium and lead and persistent organic pollutants such as dioxins. EPA already has recognized that such impacts exist. *See, e.g.*, 64 Fed. Reg. 52828, 53014 (September 30, 1999) 64 Fed. Reg. 31898, 31908-31909 (June 14, 1999); 63 Fed. Reg. 14182, 14193 (March 28, 1998); 61 Fed. Reg. 17358, 17478 (April 19, 1996) (due to bioaccumulation, mercury levels may be 10,000,000 higher in fish than in the water those fish inhabit). Further, EPA has recognized that such impacts are "non-air quality health and environmental impacts" within the meaning of § 112(d). 61 Fed. Reg. at 17382. EPA's failure to consider these effects in setting final standards was unlawful and arbitrary and capricious. *See National Lime Ass'n*, 233 F.3d at 634-635.

**V. EPA'S RISK-BASED EXEMPTION SCHEMES ARE UNLAWFUL AND ARBITRARY AND CAPRICIOUS.**

**A. Section 129 Does Not Allow Risk Based Exemptions Under any Circumstances.**

As explained in detail above, EPA must regulate all units that combust any solid waste under § 129 rather than § 112. Because § 129 does not permit EPA to establish any risk-based exemptions, it would be unlawful for EPA to do so for any boilers and process heaters that combust any solid waste.

**B. "Applicability Cutoffs" Under § 112(d)(4) Would Be Unlawful and Arbitrary and Capricious.**

In its proposal EPA solicits comment on what the agency describes as "applicability cutoffs" for threshold pollutants under § 112(d)(4) of the Clean Air Act. 68 Fed. Reg. at 1688. Specifically, the agency requests comment on an industry interpretation of § 112(d)(4) of the Act under which the agency could exempt individual facilities that can demonstrate that their emissions will not result in air concentrations above the threshold levels with an ample margin of safety even if the category is otherwise subject to MACT. *Id.*

The Clean Air Act allows no such cutoffs. Rather, it provides only that "[w]ith respect to pollutants for which a health threshold has been established, the Administrator may consider such threshold level, with an ample margin of safety, when establishing emission standards under this subsection." 42 U.S.C. § 7412(d)(4) (emphasis added). Had Congress intended to give EPA discretion to consider threshold levels in such a way as to exempt facilities from

compliance with emission standards the Clean Air Act would say so. The notion that Congress created such a gaping loophole in the Act *sub silentio* is nothing short of absurd.

Indeed, Congress considered and expressly rejected the applicability cutoffs on which EPA now solicits comment. The House version of the 1990 Amendments allowed States to issue permits that exempted a source from compliance with MACT rules if the source presented sufficient evidence to demonstrate negligible risk:

(g) Alternative Emissions Limitations.—(1) Notwithstanding the requirements of subsection (d), a State ... may issue a permit that authorizes—

(A) a major source to comply with alternative emission limitations in lieu of standards under this section, if the owner or operator presents sufficient evidence to demonstrate that emissions from the source in compliance with such limitations present a negligible risk to public health under criteria issued by the Administrator...

H.R. 3030, 101<sup>st</sup> Cong., 1<sup>st</sup> Sess. (1989) at 203, 2 A Legislative History of the Clean Air Act Amendments of 1990 (“Legislative History”) at 3939.

The Senate version of the 1990 Amendments, however, contained no such provision. Instead, it contained language similar to current § 112(d)(4): “[w]ith respect to pollutants for which a health threshold can be established, the Administrator may consider such threshold level, with an ample margin of safety, when establishing emission standards under this subsection.” S. 1630, 101<sup>st</sup> Cong., 2<sup>nd</sup> Sess. (1990) 307, 3 Legislative History at 4425.

In conference, Congress considered both the House and Senate versions. It rejected the House bill’s exemption for specific facilities in favor of the Senate bill’s language. Explaining the decision (in the context of a draft alternatives paper prepared by EPA), Senator Durenberger stated

The fourth set of alternatives reviewed in the paper concern source-by-source exemptions from MACT based on risk assessments, a provision contained in the House bill. The authority for such exemptions was not present in the Senate bill, and the House receded to the Senate on this point. The provision was deleted in conference. As a result, the paper’s discussion of this provision is irrelevant to the final legislation.

1 Legislative History at 866. In short, any discussion of source-by-source exemptions has no basis in the Clean Air Act.

EPA’s alternatives paper also asserted that “a facility may be subject to a MACT regulation but ... cutoffs specified in the standard may result in no additional controls being applied.” 1 Leg. Hist. at 869. Senator Durenberger commented

No such authority has been retained in the final statute. While various categories and subcategories of sources may be established, emissions from all facilities

within a category or subcategory must be controlled by the MACT standard. The managers specifically disapprove of EPA's practice — evident in recent new source performance standards under section 111 of current law — for example, the air oxidation and distillation standards — of establishing cutoffs that result in excluding some sources within the category or subcategory from the emission limitations or control measures otherwise required.

1 Leg. Hist. at 869.

In sum, the text and legislative history of the Clean Air Act make clear that the applicability cutoffs on which EPA solicits comment are unlawful. By attempting to resuscitate an exemption that Congress expressly considered and rejected, the agency would blatantly contravene the Clean Air Act.

Even if applicability cutoffs for individual sources were not inherently unlawful, they would be unlawful here. First, EPA has indicated that sources in the automobile and light-duty truck surface coating category emit carcinogens including at least four carcinogens: benzene, formaldehyde, EGBE and nickel compounds. 67 Fed. Reg. at 78626. As the legislative history makes clear, Congress did not intend EPA to establish any carcinogens as "threshold" pollutants under § 112(d)(4):

where health thresholds are well-established, for instance in the case of ammonia, and the pollutant presents no risk of other adverse health effects, including cancer, for which no health threshold can be established, the Administrator may use the threshold with an ample margin of safety (and not considering cost) to set emissions limitations for sources in the category or subcategory. Employing a health threshold or safety level rather than the MACT criteria to set standards shall not result in adverse environmental effects which would otherwise be reduced or eliminated.

S. Rep. No. 228, 101<sup>st</sup> Cong., 1<sup>st</sup> Sess. (1989) at 171, 5 Leg. Hist. at 8511 (emphasis added). As Senator Durenberger stated:

With respect to pollutants for which a safe threshold can be set, the authority to set a standard less stringent than the maximum achievable control technology is contained in subsection (d)(4). With respect to carcinogens and other non-threshold pollutants, no such authority exists in subsection (d) or any other provision of the Act.

1 Leg. Hist. at 876-877 (emphasis added). Thus, providing § 112(d)(4) cutoffs for sources that emit carcinogens or other non-threshold pollutants is plainly unlawful.

Second, EPA appears simply to assume that it need consider only inhalation based risks. Nowhere, however, does the agency demonstrate (or even claim) that people are exposed only through inhalation to the hazardous air pollutants emitted by the automobile and light-duty truck surface coating category. Absent any such demonstration, it is reasonable to conclude that there is a possibility of exposure through other pathways (e.g. ingestion). Section 112(d)(4) refers to

pollutants “for which a health threshold has been established.” As this language and the legislative history make clear, it refers to pollutants that have no adverse health or environmental effects. See 5 Legislative History at 8511. Thus, § 112(d)(4) necessarily requires EPA to consider all possible ways that a pollutant could affect human health or the environment.

With respect to carcinogens, EPA requests comment on “how we should consider the state of the science as it relates to the treatment of threshold pollutants when making determinations under section 112(d)(4).” 68 Fed. Reg. at 1692. As shown above, Congress made clear that it did not regard carcinogens as threshold pollutants. Thus, it is irrelevant whether EPA may ultimately conclude that some carcinogens are threshold pollutants; applying § 112(d)(4) to carcinogens is unlawful.

EPA also requests comment on “whether there is a level of emissions of a nonthreshold carcinogenic HAP ... at which it would be appropriate” to allow a facility to use the ... the section 112(d)(4) approach. *Id.* As explained above, the answer is no; regardless of what EPA thinks the risks from any particular carcinogen might be, Congress has plainly indicated its intent that carcinogens are not threshold pollutants. Therefore, no level of emissions of carcinogens is insignificant for the purpose of § 112(d)(4).

Even assuming *arguendo* that EPA’s applicability cutoff proposal were not otherwise unlawful, the agency’s proposed methods for determining a hazard index would contravene § 112(d)(4)’s mandate to “provide an ample margin of safety.” Specifically, none of these methods accounts for the fact that the potency of a mixture of HAP can be more potent than the sum of the individual HAP potencies. Without accounting for the synergistic effects of two or more pollutants, EPA cannot possibly provide an ample margin of safety.

**C. Subcategory Delisting Under § 112(C)(9)(b) Would Be Unlawful and Arbitrary and Capricious.**

EPA also states that it is considering whether it would be possible to establish a subcategory of facilities within the larger automobile and light-duty truck surface coating category that would meet the risk-based criteria for delisting under § 112(c)(9). 68 Fed. Reg. at 1692. Any such action would be flatly unlawful. Section 112(c)(9)(B) provides that EPA “may delete any source category” from the § 112(c) list upon making certain determinations. 42 U.S.C. § 7412(c)(9)(B). Congress was well aware of the difference between a “category” and a “subcategory” when it enacted § 112(c) and, when Congress wished to refer to subcategories as well as categories, it did so expressly. See, e.g., 42 U.S.C. § 7412(c)(1). By referring only to “category,” Congress made plain that § 112(c)(9)(B) does not allow EPA to delist a “subcategory” for any reason.

Even if EPA could delist a subcategory, it could not do so based on risk. Section 112(c) states that “[t]o the extent practicable, categories and subcategories listed under this subsection shall be consistent with the list of source categories established pursuant to section 111 and part C.” 42 U.S.C. § 7412(c)(1). Subcategories based on risk would not be “consistent with” either the § 111 list or part C.

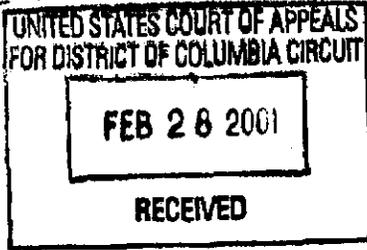
Also, § 112(d) makes plain that EPA can only subcategorize based on “classes, types and sizes.” 42 U.S.C. § 7412(d)(1). In addition, EPA itself has interpreted the term “subcategory” to mean equipment that shares physical characteristics relevant to the degree of pollution control that can be achieved. Because risk is not such a characteristic, EPA may not subcategorize based on risk. Further, risk based subcategories would be at odds with Congress’s purpose in enacting § 112 — i.e., requiring technology-based standards with a performance-based floor — which was precisely to overcome EPA’s all but complete failure to promulgate any health-based standards.

Moreover, EPA has offered no reason for departing from its current interpretation of subcategory other than its apparent desire to avoid setting emission standards. Therefore, if EPA subcategorizes based on risk, it will be reversing its own stated policy in an arbitrary and capricious manner. Thus, by attempting to subcategorize based on risk — a necessary step in delisting a subcategory based on risk — EPA would contravene § 112(d)(1).

Nor could EPA render risk-based subcategories any less unlawful by creating them under the pretense of subcategorizing by technology — a possibility the agency admits to considering. 68 Fed. Reg. at 1693.

Even assuming *arguendo* that EPA could subcategorize by risk, it would be unlawful for the agency to refuse to consider the low risk sources in its floor calculations. Section 112’s floor language does not provide for any exception to its mandate to base floors on the emission levels achieved by the relevant best performing sources.

## EXHIBIT A



UNITED STATES COURT OF APPEALS  
DISTRICT OF COLUMBIA CIRCUIT

SIERRA CLUB,	)
	)
Petitioner,	)
	)
v.	)
	)
U.S. ENVIRONMENTAL PROTECTION	)
AGENCY and	)
CHRISTINE T. WHITMAN, Administrator,	)
U.S. Environmental Protection Agency, <sup>1</sup>	)
	)
Respondents.	)
	)
	)

No. 01-1048

**SIERRA CLUB'S NONBINDING STATEMENT OF ISSUES**

Pursuant to this Court's docketing order of January 31, 2001, Sierra Club hereby submits the following nonbinding statement of issues to be raised in this proceeding:

1. Whether respondents acted unlawfully, or arbitrarily and capriciously, in promulgating regulations for "solid waste incineration units combusting commercial and industrial waste," 42 U.S.C. § 7429(a)(1)(D), that exempt units that burn waste for energy recovery;
2. Whether respondents acted unlawfully, or arbitrarily and capriciously, in promulgating regulations that exempt parts reclaimer incinerators and drum reclaimer incinerators;

<sup>1</sup> This case initially named Carol M. Browner as respondent in her capacity as Administrator of the U.S. Environmental Protection Agency. Pursuant to Fed. R. App. P. 43(c)(2), Christine T. Whitman is automatically substituted for Carol M. Browner.

3. Whether respondents acted unlawfully, or arbitrarily and capriciously, in determining the statutory minimum stringency (pursuant to 42 U.S.C. § 7429(a)(2)) for its emission standards;

4. Whether respondents acted unlawfully, or arbitrarily and capriciously, in setting emission standards that are less stringent than required by 42 U.S.C. § 7429;

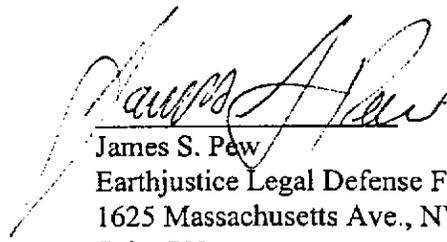
5. Whether respondents acted unlawfully, or arbitrarily and capriciously, in setting emission standards that do not reflect the consideration of non-air quality health and environmental impacts, as required by 42 U.S.C. § 7429(a)(2);

6. Whether respondents acted unlawfully, or arbitrarily and capriciously, in setting emission standards that do not require maximum degree of reduction in emissions that is achievable through (1) banning or restricting the combustion of certain materials, (2) combustion technologies, (3) operating practices, or (4) pollution control technologies;

7. Whether respondents failed to promulgate standards that are "based on methods and technologies for removal or destruction of pollutants before, during or after combustion," as required by 42 U.S.C. § 7429(a)(3);

8. Whether respondents acted unlawfully, or arbitrarily and capriciously, in setting emission standards that do not include the monitoring and reporting requirements mandated by 42 U.S.C. § 7429(c)(3);

DATED: February 28, 2001



James S. Pew  
Earthjustice Legal Defense Fund  
1625 Massachusetts Ave., NW  
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(202) 667-4500

Attorney for Sierra Club

## EXHIBIT B



**EARTHJUSTICE**  
LEGAL DEFENSE FUND

BOZEMAN, MONTANA DENVER, COLORADO HONOLULU, HAWAII  
JUNEAU, ALASKA NEW ORLEANS, LOUISIANA SAN FRANCISCO, CALIFORNIA  
SEATTLE, WASHINGTON TALLAHASSEE, FLORIDA WASHINGTON, D.C.

January 30, 2001

Michael McCabe  
Acting Administrator,  
Environmental Protection Agency  
401 M. Street, SW  
Washington D.C. 20460

RE: Petition To Reconsider Regulations for Commercial and Industrial Solid Waste Incineration Units

Dear Mr. McCabe:

This is a petition under Clean Air Act § 307(d)(7)(B), 42 U.S.C. § 7607(d)(7)(B). The parties submitting this petition are the Louisiana Environmental Action Network, 162 Croydon Avenue, Baton Rouge, LA 70806 and the National Wildlife Federation, 506 East Liberty Street, 2<sup>nd</sup> Floor, Ann Arbor, MI 48104-2210 (collectively, "Petitioners"). By this petition, Petitioners request that EPA reconsider its regulations for Commercial and Industrial Solid Waste Incineration Units, 40 C.F.R. Part 60, Subparts CCCC and DDDD, 65 Fed. Reg. 75338 *et seq.* (December 1, 2000).

Section 307(d)(7)(B) of the Clean Air Act provides that if grounds for an objection to a rulemaking arise "after the period for public comment (but within the time specified for judicial review) and is such objection is of central relevance to the outcome of the rule, the Administrator shall convene a proceeding for reconsideration of the rule and provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed." 42 U.S.C. § 7607(d)(7)(B).

After the period for public comment on EPA's regulations for Commercial and Industrial Solid Waste Incineration Units (CIWI), EPA promulgated a definition of the term "commercial and industrial waste." 40 C.F.R. § 60.2265, 65 Fed. Reg. at 75359. EPA's proposed regulations for CIWI did not contain any definition of that term. 64 Fed. Reg. 67092, 67125 (November 30, 1999). Nor did EPA provide any indication in the proposed CIWI regulations (or the preamble thereto) that the agency intended to promulgate a definition of the term "commercial and industrial waste."

Also after the comment period, EPA promulgated a definition of "commercial and industrial solid waste incineration unit" that was significantly different than the definition of that term that EPA had proposed. Specifically, the final definition of "commercial and industrial solid waste incineration unit" incorporated the newly promulgated definition of "commercial and industrial waste." 40 C.F.R. § 60.2265; 65 Fed. Reg. at 75359. Thus, the final definition of

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"commercial and industrial solid waste incineration unit" is "any combustion device that combusts commercial and industrial waste, as defined in this subpart." *Id.* (emphasis added) The proposed definition, by comparison, was "an enclosed device using controlled flame combustion that burns solid waste or an air curtain incinerator that burns solid waste, and that is a distinct operating unit of any commercial or industrial facility." 64 Fed. Reg. at 67125.

EPA's definition of "commercial and industrial waste" and the agency's changed definition of "commercial and industrial solid waste incineration unit" provide "grounds for objection" to EPA's CIWI regulations. 42 U.S.C. § 7607(d)(7)(B). Specifically, these regulatory definitions exclude solid waste incineration units at commercial and industrial facilities that combust solid waste with energy recovery. 40 C.F.R. § 60.2265; 65 Fed. Reg. at 75359.

Excluding such solid waste incineration units from the definition of "commercial and industrial solid waste incineration unit" contravenes Clean Air Act § 129(a)(1)(A), 42 U.S.C. § 7429(a)(1)(A). Specifically, § 129(a)(1)(A) requires EPA to promulgate standards under §§ 111 and 129 for "each category of solid waste incineration units." Solid waste incineration units at commercial and industrial facilities that combust waste with energy recovery are "distinct operating unit[s]" of facilities "which combust[] ... solid waste material from commercial or industrial establishments or the general public." 42 U.S.C. § 7429(g)(1). Further, such incineration units are not covered by any of the exclusions set forth in § 129(g)(1). Accordingly, they are "solid waste incineration unit[s]" pursuant to § 129(g)(1), and must be regulated under § 129. 42 U.S.C. § 7429(a)(1). In particular, they must be regulated under § 129(a)(1)(D), 42 U.S.C. § 7429(a)(1)(D).

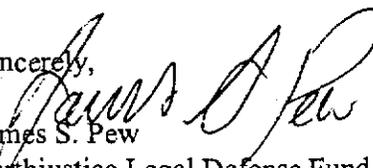
The above-described objection to EPA's CIWI regulations is of "central relevance to the outcome of the rule." 42 U.S.C. § 7607(d)(7)(B). Judicial review of EPA's definitions of "commercial and industrial waste" and "commercial and industrial solid waste incineration unit," will establish that those definitions are unlawful, and must be changed to include all solid waste incineration units operating at commercial and industrial facilities. Thus, the above-described objection will substantially change the number of solid waste incineration units covered by EPA's CIWI regulations.

Grounds for the above-described objection to EPA's CIWI regulations "arose after the period for public comment (but within the time specified for judicial review)." 42 U.S.C. § 7607(d)(7)(A). Specifically, they arose when EPA promulgated the final rule containing the definition of "commercial and industrial waste" and the changed definition of "commercial and industrial solid waste incineration unit."

Pursuant to Clean Air Act § 307(d)(7)(B), you must convene a proceeding for reconsideration of the CIWI rule and "provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed." 42 U.S.C. § 7607(d)(7)(B). "Such consideration shall not postpone the effectiveness of the rule." *Id.*

Petitioners request a prompt response to this petition.

Sincerely,

  
James S. Pew

Earthjustice Legal Defense Fund  
Attorney for Louisiana Environmental Action Network  
and National Wildlife Federation

## EXHIBIT C

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY

_____ )	
Commercial and Industrial Solid Waste )	
Incineration Units; )	
Proposed Standards and Guidelines; )	
Proposed Rules )	Air and Radiation Docket Number
)	A-94-63
64 Fed. Reg. 67092 )	
(November 30, 1999) )	
)	
_____ )	

**COMMENTS OF SIERRA CLUB, CALIFORNIA COMMUNITIES AGAINST TOXICS  
AND DESERT CITIZENS AGAINST POLLUTION**

Sierra Club, California Communities Against Toxics and Desert Citizens Against Pollution (“Commenters”) submit the following comments on EPA’s proposed regulations for commercial and industrial solid waste incineration (CISWI) units, 64 Fed. Reg. 67092 (November 30, 1999).

**I. FLOOR ISSUES.**

**A. Existing Units.**

**1. EPA’s Technology-Based Floor Approach Is Unlawful.**

The Clean Air Act mandates floors based on “the average emissions limitation achieved by the best performing 12 percent of units.” 42 U.S.C. § 7429. This mandate requires EPA to show—and not merely assert—that its floors reasonably reflect the actual performance of the best performing twelve percent of units. *Sierra Club v. EPA*, 167 F.3d 658, 663-664 (D.C. Cir. 1999). EPA’s floors, however, do not even purport to reflect the actual performance of the best units; they reflect emission levels that the agency believes to be achievable with a particular type of control technology.<sup>1</sup>

<sup>1</sup> It is not clear from the agency’s discussion what EPA regards as the “floors” for its standard. At one point, the agency refers to its technology choice as “the technology basis” for each floor, implying that the floor is the emission level that EPA believes to be achievable with that technology. 64 Fed. Reg. at 67099. In the very next paragraph, however, the agency refers to the “resulting emission limits associated with the MACT floors for each pollutant,” implying that the floors are the chosen technologies themselves. *Id.* (emphasis added). EPA’s failure to indicate whether it believes that the floors are the technologies themselves or the emission levels footnote continued on next page...

EPA's floor approach contravenes the Clean Air Act in several respects. First, setting floors based on the performance of a particular technology is flatly inconsistent with the Act's floor language. Quite simply, the alleged performance of a technology is not "the average emissions limitation achieved by the best performing twelve percent of units. 42 U.S.C. § 7429(a)(2) (emphasis added). EPA must set floors based on what the best performing CISWI units have achieved, not on what the agency believes a particular technology can achieve.<sup>2</sup>

Second, EPA has not claimed—far less shown—that its floors reasonably reflect the actual performance of the best units. EPA claims only that its floors reflect limits that are achievable through deployment of the technology used by the best performing units. Even if true, this claim would not show that EPA's floors reasonably reflect the actual performance of the best units, and thus would not bring EPA's floor approach within the requirements of § 129. See Sierra Club, 167 F.3d at 663 (if EPA bases floors on data other than actual emissions data, the agency must show that those data reasonably reflect the actual performance of the best units).

Third, even if EPA had claimed that its floors reasonably reflect the actual performance of the best units, the agency has not shown this to be correct. Sierra Club 167 F.3d at 663 (EPA must show and not merely assert that its floors reflect the actual performance of the best units). To begin with, EPA has never identified the best performing twelve percent of units or the emissions limitation those units achieved.<sup>3</sup> As a result, the agency cannot possibly compare its technology-based floors to such units' actual performance, and cannot possibly show that its floors reflect such performance. Moreover, as EPA is well aware, a unit's actual performance depends not just on the type of control technology it uses, but also on many other factors,

... footnote continued from previous page

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"associated with" those technologies renders the agency's attempted explanation of its floor approach difficult to understand.

<sup>2</sup> The first step in EPA's floor-setting approach was to rank control technologies according to effectiveness, based on the agency's review of "information about emission reduction in the literature and engineering judgment." Id. Second, EPA ranked the units in its database based on which control technology they used. Third, EPA "determined the technology basis of the MACT floor for each pollutant by identifying the best-performing 12 percent of units on a pollutant-by-pollutant basis." 64 Fed. Reg. at 67099. Finally, EPA established an emission level that the agency believed to be "achievable" with the chosen technology. That level was the "maximum concentration of emissions reported for the given pollutant/control combination"—i.e., apparently, the very worst emissions test reported.

<sup>3</sup> Although EPA claims that it "determined the technology basis of the MACT floor for each pollutant by identifying the best-performing 12 percent of units on a pollutant-by-pollutant basis" (64 Fed. Reg. at 67099 (emphasis added)), EPA did not identify the best performing units. Instead, the agency simply chose a particular technology, and declared that the best performing units were the units that used that technology. The agency then declared that that technology—i.e. the very technology EPA had chosen in the first place—is the technology used by the best performing units. In short, the agency's claims to have identified the best performing units and the technology that those units deploy both rest on circular reasoning.

including the materials being burned, pollution prevention measures, and combustion conditions (which in turn vary with the type of combustor and the manner in which it is run). Thus, the alleged performance of a control technology alone cannot possibly give a reasonable indication of the performance of the best units.

Fourth, EPA's floor approach virtually guarantees that its floors do not reasonably reflect the actual performance of the best units. The emission limits that EPA "associated" with the chosen technologies was the "maximum concentration" reported for that technology—i.e., apparently, the worst emission test result for each pollutant/control technology combination. Quite simply, the worst emissions test result for any unit using a particular technology does not reasonably reflect the actual performance of the "best performing" units.<sup>4</sup> See *Sierra Club*, 167 F.3d at 663-664 (rejecting as "hopelessly irrational" EPA's attempt to characterize the worst emissions test results as reflective of the actual performance of the best performing units). If EPA were to make such an Orwellian claim, the agency would find no support in the record. Indeed, EPA's own emissions data show that the best performing twelve percent of units are achieving emission limits that are substantially better than the agency's floors. See Table 1, *infra* at 5.

Fifth, EPA's decision to inject its own notion of what is "achievable" into the floor analysis blatantly contravenes the Clean Air Act. EPA's discussion of its floor approach indicates that the agency did not even attempt to set floors that reasonably reflect the actual performance of the best units. Instead, EPA admits that, after choosing a technology, it "examined the emissions data for CISWI to determine achievable emission limits." 67 Fed. Reg. at 67099 (emphasis added). The Clean Air Act, however, does not direct EPA to set floors reflecting the emissions limitations that it believes to be "achievable," but rather the emissions limitations that are "achieved" by specific units—the "best performing 12 percent."<sup>5</sup> The difference between what EPA believes to be "achievable" and what the best units actually "achieved" is enormous. The first reflects a subjective judgment by the agency; the second is an objective measurement. By substituting the agency's subjective judgment for the objective measurement that § 129 requires, EPA's approach writes the floor language out of § 129 altogether.

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<sup>4</sup> Indeed, even assuming arguendo that EPA could lawfully identify the best performing 12 percent of units solely by reference to the technology they deploy, the agency would still be obliged to set floors that reasonably reflect the performance of those units. Because EPA's floors are based on the worst emissions test result for any unit using a particular technology, however, those floors do not reasonably reflect the performance of units using that technology. A fortiori, EPA's floors do not reflect the performance of the best units using the chosen technology.

<sup>5</sup> Although the Act requires EPA to determine what additional reductions are "achievable" beyond-the-floor, the Act's floor language simply mandates that all units match the performance of the best units. Obviously, "the average emissions limitation achieved by the best performing 12 percent of units" has been "achieved." Therefore, that performance level is achievable. How units that are not in the top twelve percent match the performance level of the best performing twelve percent is not EPA's concern.

Moreover, EPA's approach renders the agency's MACT standards indistinguishable from best available control technology (BACT) standards under § 111 of the Clean Air Act, which merely requires standards that:

reflect[] the degree of emission limitation achievable through the application of the best system of emission reduction which (taking into account the cost of achieving such reduction and any nonair quality health and environmental impact and energy requirements) the Administrator determines has been adequately demonstrated.

42 U.S.C. § 7411(a)(1). Had Congress intended this result, it need not have included the floor language in § 129 and, indeed, need not have enacted § 129 at all.

**2. EPA's Emission Standards Are Less Stringent than Required by the Clean Air Act.**

The actual floors for existing units, based on EPA's own emissions data, are set forth in Table 1, *infra*.<sup>6</sup> As Table 1 demonstrates, EPA's proposed standards for existing units are not as stringent as the Clean Air Act requires. If EPA does not believe that it has enough emissions data to represent the actual performance of individual units, or if EPA does not believe that it has data for enough units to represent the ICWI population, the agency must use its authority under § 114 of the Clean Air Act to obtain such data. See 42 U.S.C. § 7414(a). If EPA does not use its authority to collect more emissions data, it must be assumed that the data in the agency's database accurately reflect the performance of existing ICWI units, and the agency must promulgate final standards that are at least as stringent as the floors set forth in Table 1.

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<sup>6</sup> For each pollutant, the actual floors were calculated using the emissions test data in EPA's ICCR Emission Test Database. First, the three test runs for each unit were averaged to obtain each unit's average performance. Second, the best performing 12 percent of units in the database was identified based on average performance. Third, floors were calculated by averaging the average performance of the best performing 12 percent of units in the database.

TABLE 1 (EXISTING UNITS)

<u>HAP</u>	<u>Units</u>	<u>Actual Floors</u>	<u>EPA's Final Emissions Standards</u>
Cadmium	mg/dscm	0.0006443	0.03
CO	ppm	3.6071667	157
Dioxins <sup>7</sup>	ng/dscm	0.0035	0.37
HCl	ppm	0.5516167	62
Lead	mg/dscm	0.00387	2.1
Mercury	mg/dscm	0.00097567	0.005
NOx	ppm	20.716667	388
PM	mg/dscm	15.910	70
Sulfur Dioxide	ppm	0.8126667	20

**3. EPA's Floors for Oxides of Nitrogen and Carbon Monoxide Are Unlawful.**

EPA's floors for oxides of nitrogen (NOx) and carbon monoxide (CO), which are both unlawful for all the reasons discussed above (see *supra* at 1-4), are also unlawful for an additional reason. EPA concedes that CISWI have deployed technologies to reduce emissions of NOx and CO (combustion modification techniques for NOx and afterburners for CO), but asserts that the emissions data do not demonstrate that these technologies significantly reduce emissions. 64 Fed. Reg. at 67100. Thus, although, EPA used "information about emission reduction in the literature and engineering judgment," to evaluate the effectiveness of pollution control technology for other pollutants, the agency evaluated the effectiveness of NOx and CO control technologies—that are admittedly in use—solely on the basis of emissions test data and without regard to "information about emission reduction in the literature and engineering judgment." Further, EPA provided no reason for failing to use information in literature and engineering judgement to evaluate the control technologies for NOx and CO. Using different criteria to evaluate these control technologies is arbitrary and capricious, especially given EPA's failure to explain why it did so. Moreover, the agency's different approaches suggests that EPA deliberately used different approaches to reach different results—i.e., used actual emissions data

<sup>7</sup> In EPA's database, the dioxin emissions data were recorded in parts per million (ppm). To provide a comparison with the agency's final dioxin standards, these results were converted to nanograms per dry standard cubic meter (ng/dscm) according to the following formula: 1 ppm = 22.4 ng/dscm. See <http://palimpsest.stanford.edu/byorg/abbey/an/an11/an11-7/an11-714.html> (citing Thompson, *The Museum Environment*, 125 (1978)).

to avoid setting floors for NO<sub>x</sub> and CO, but refused to use actual emissions data where such data would have led to more stringent floors for other pollutants.

Based on its arbitrary and capricious finding that NO<sub>x</sub> and CO controls have not been demonstrated on CISWI units, EPA determined that “the MACT floor reflects no control of these pollutants.” 64 Fed. Reg. at 67100. Accordingly EPA set floors that “represent the highest uncontrolled emission rates of [NO<sub>x</sub> and CO] in the emissions database” (*id.* (emphasis added))—effectively no floor at all. This result, and the inconsistent and manipulative means by which it was reached, contravene the Clean Air Act. Further, the fact that EPA’s floor approach led the agency to conclude that there is no floor for NO<sub>x</sub> and CO—even where the agency conceded that emissions control methods are in use—underscores the irrationality of that approach.

#### **4. The Proposed Mercury Limits Are Not Too Stringent.**

EPA requests comment on whether the proposed mercury limits are too stringent. EPA set the final mercury standard at the floor level—i.e. the level that it believes to be achievable with a wet scrubber. Nonetheless, the agency expresses concern that, because wet scrubbers may not be effective in removing non-water-soluble mercury species, CISWI units that burn relatively more of these species of mercury may not be able to meet the standard solely by using a wet scrubber. 64 Fed. Reg. at 67100.

Far from suggesting that EPA’s mercury standard is too stringent, the possibility that that some units may not be able to meet the standard solely by using a wet scrubber merely reconfirms that EPA’s floor approach is not what Congress intended. As explained above, the Act requires floors based on the “average emissions limitation achieved by the best performing 12 percent of units.” This language emphasizes the best units’ actual performance—a concept that encompasses not just the control technologies used but also every other factor that affects performance, including pollution prevention measures, the waste being burned, the quality of the combustion unit, and the parameters of the combustion process. Thus, EPA’s concern—which results from the agency’s erroneous belief that all units should be able to achieve the floor levels just by employing a particular technology—is unfounded.

### **B. New Units.**

#### **1. EPA’s Technology-Based Floor Approach Is Unlawful.**

EPA’s floor approach for new units was identical to its approach for existing units, and is unlawful for all the same reasons. See supra at 1-5.

**2. EPA's Emission Standards Are Less Stringent than Required by the Clean Air Act.**

The actual floors for new units, based on EPA's own emissions data, are set forth in Table 2, *infra*.<sup>8</sup> As Table 2 demonstrates, the proposed standards for new units are not as stringent as the Clean Air Act requires. If EPA does not believe that it has enough emissions data to represent the actual performance of individual units, or if EPA does not believe that it has data for enough units to represent the ICWI population, the agency must use its authority under § 114 of the Clean Air Act to obtain such data. See 42 U.S.C. § 7414(a). If EPA does not use its authority to collect more emissions data, it must be assumed that the data in the agency's database accurately reflect the performance of existing ICWI units, and the agency must promulgate final standards that are at least as stringent as the floors set forth in Table 2.

TABLE 2 (NEW UNITS)

<u>HAP</u>	<u>Units</u>	<u>Actual Floors</u>	<u>EPA's Final Emissions Standards</u>
Cadmium	mg/dscm	0.0006443	0.03
CO	ppm	2.79	157
Dioxins	ng/dscm	0.0035	0.37
HCl	ppm/dscm	0.3415667	62
Lead	mg/dscm	0.00387	2.1
Mercury	mg/dscm	0.000975667	0.005
NOx	ppm	11.366667	388
PM	mg/dscm	8.0233333	70
Sulfur Dioxide	ppm	0.8126667	20

<sup>8</sup> For each pollutant, the actual floor levels were calculated using the emissions test data in EPA's ICCR Emission Test Database. First, the three test runs for each unit were averaged to obtain each unit's average performance. Second, the best performing unit in the database was identified based on average performance. The floors equal the average performance of the best performing unit in the database.

**3. EPA's Floors for Oxides of Nitrogen and Carbon Monoxide Are Unlawful.**

EPA's new unit floors for NO<sub>x</sub> and CO are unlawful for the same reasons as its existing unit floors. See supra at 5-6.

**4. The Proposed Mercury Limits Are Not Too Stringent.**

EPA's new unit mercury limits are too weak, not too stringent, for the same reasons as its existing unit mercury limits. See supra at 6.

**II. BEYOND THE FLOOR ISSUES**

The Clean Air Act mandates that EPA "shall" establish emissions standards that reflect "the maximum degree of reductions" that the agency determines to be achievable 42 U.S.C. § 7429(a)(2). Thus, the Act imposes an obligation on EPA to set standards that are more stringent than the floor where additional reductions are achievable. The Clean Air Act further requires that final emission standards be based on "methods and technologies for removal or destruction of pollutants before, during or after combustion." 42 U.S.C. § 7429(a)(3). Thus the Act requires EPA to look beyond the reductions that are achievable through the deployment of control technologies, and determine whether additional reductions are achievable through methods to remove or destroy pollutants before or during combustion—i.e., pollution prevention methods and methods based on combustion technologies and techniques. If such reductions are achievable and would further reduce emissions, EPA must require them to obtain the "maximum degree of reductions." Finally, in determining what reductions are achievable, EPA must consider "non-air quality health and environmental impacts." For CISWI units, EPA must consider the effects of dioxin and mercury emissions that are deposited on land or water, bioaccumulate in food chain, and threaten the health of wildlife and humans. In particular, EPA must consider the health effects on populations that are highly exposed to these pollutants, such as subsistence fishing communities.

For both new and existing units and for all of its emission standards, EPA states that it considered only one beyond-the-floor option, a fabric filter with carbon injection and a wet scrubber. 64 Fed. Reg. at 67099, 67100. Although EPA found that this option would provide further reductions of dioxin and possibly mercury, the agency rejected it, asserting that "the incremental cost effectiveness of applying this dry/wet system is considered excessive." Id. Significantly, EPA did not state why it felt that the incremental cost effectiveness was excessive. Nor did the agency what criteria it uses to determine whether a given cost effectiveness is excessive or acceptable. Absent any such explanation, EPA's decision not to set beyond the floor standards based on the "wet/dry system" is arbitrary and capricious.

EPA also failed to consider any other beyond the floor options (although the agency requests comment on this subject). Under the Act, EPA must consider options based on banning or restricting the combustion of certain materials and on good combustion technology and good combustion techniques. See supra at 8 (discussing 42 U.S.C. § 7429(a)(3)). In particular, EPA must consider banning or restricting the combustion of any mercury-bearing waste and chlorinated plastics. It is beyond dispute that eliminating or reducing mercury in the waste stream will eliminate or reduce mercury emissions. See Letter from O'Sullivan to Porter of July

7, 1997 (Ex. A hereto); Response to Comment Document for Medical Waste Incineration Rule (Excerpt attached as Ex. B hereto). Likewise, it is beyond dispute that eliminating or restricting chlorinated plastics in the waste stream will reduce hydrogen chloride emissions. Ex. B at 7-17–7-18. Further, there is ample evidence that these pollution reduction methods are achievable. Therefore, the agency must set beyond-the-floor standards that reflect the additional reductions that can be achieved through these measures.<sup>9</sup>

Finally, although EPA considered cost in determining whether to set beyond the floor standards, the agency failed to consider “non-air quality health and environmental impacts,” such as the effects (discussed above) of bioaccumulated mercury and dioxins. EPA’s failure to consider these impacts contravenes the Clean Air Act.<sup>10</sup>

### III. MONITORING AND TESTING

The Clean Air Act mandates that EPA’s regulations must require the owner or operator of each CISWI unit “to monitor emissions ... as necessary to protect public health.” 42 U.S.C. § 7429(c)(1). Under EPA’s monitoring hierarchy, continuous emissions monitors (CEMS) are the first and foremost means of monitoring emissions, and the agency considers other options only when CEMs are not available or when the costs are “unreasonable.” 64 Fed. Reg. 67100 – 67101. The Clean Air Act also requires: (1) such monitoring of parameters relating to the operation of a unit and its control equipment as EPA determines to be appropriate (42 U.S.C. § 7429(c)(2)); (2) all monitoring results to be reported and made available to the public (42 U.S.C. § 7429(c)(3)); and, (3) all CISWI units to have Title V permits (42 U.S.C. § 7429(e)), a requirement of which is that owners and operators promptly report each and every deviation from emissions standards (42 U.S.C. § 7661b(b)(2)). In short, owners and operators of CISWI units must know their emission levels and compliance status at all times.

Notwithstanding the need for effective monitoring and EPA’s reiteration of its oft-stated monitoring hierarchy, the agency proposes not to require CEMs. EPA claims that HCl CEMs are too costly. This claim is based entirely on the argument that the annual operating costs are

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<sup>9</sup> Even if EPA believes that it cannot determine what emission levels are achievable through eliminating or reducing mercury-bearing waste and chlorinated plastics, the agency still should ban or restrict the combustion of mercury-bearing waste and chlorinated plastics as a separate requirement in addition to its emission standards. These measures themselves are achievable, and would reduce emissions. Therefore, it is unnecessary—and, indeed, creates an unnecessary regulatory obstacle—to condition the adoption of these measures on the agency’s ability to incorporate them into numerical emission standards. Commenters recommend the following regulatory language: “CISWI units shall not combust any materials containing mercury or chlorinated plastics.”

<sup>10</sup> EPA did consider water and solid waste impacts (the amount of extra water that would be required for wet scrubber use and the amount of additional solid waste that would be generated), but this consideration did not satisfy the agency’s obligations to consider non-air quality health and environmental impacts. The latter impacts encompass far more than extra water usage or solid waste generation including—at a minimum—the effects of bioaccumulated mercury and dioxin. See supra at 8.

approximately \$36,000, about seventy percent of the annual operating costs of a wet scrubber. The agency does not indicate, however, why \$36,000 is too costly or why seventy percent is too much. Absent some explanation, EPA's decision on this issue is arbitrary and capricious.

EPA also claims that CEMs for particulate matter (PM) and mercury "have not been demonstrated in the United States for the purpose of determining compliance." *Id.* at 67100. This claim is puzzling at best. Is the agency attempting to distinguish between CEMs that have been demonstrated for the purpose of compliance and those that have been demonstrated for some other purpose? If so, what is the basis for this distinction? If a CEM has been demonstrated to be effective, it should be used to determine compliance. Absent some explanation, EPA's rejection of CEMs on the grounds that they have not been demonstrated "for the purpose of determining compliance" is arbitrary and capricious.

Yearly stack testing, the only emissions monitoring that EPA has proposed, will not protect public health, as required by § 129(c)(1). EPA claims that these tests will "ensure on an ongoing basis, the air pollution control device is operating properly and that its performance has not deteriorated." 64 Fed. Reg. at 67101. Accepting this claim *arguendo*, the mere fact that a pollution control device is operating properly on one day out of the year does not guarantee that it is functioning properly (or at all) on other days. Proper functioning requires the device to be turned on and properly operated, requirements that are elementary but often flouted. Moreover, even if a facility's air pollution control device is turned on and functioning, other factors—unrelated to the performance of the control device—may still cause the facility to exceed emission standards. In short, yearly stack testing can only ensure that a pollution control device is capable of functioning, it cannot ensure that facilities will meet emission standards continually or even consistently. Therefore, yearly stack testing does not satisfy § 129's requirement for emissions monitoring that is protective of public health. If CEMs are, in fact, too costly or otherwise unavailable, EPA should require other types of periodic emissions testing. In particular, EPA should require the use of portable emissions analyzers to test emissions at periodic intervals. These analyzers are affordable and have been demonstrated to be effective. Periodic emissions testing, although not as good as continual emissions monitoring, would significantly improve the quality of emissions data available to EPA and the public.

Because parameter monitoring is not emissions monitoring, EPA's proposed parameter monitoring requirements cannot—as a statutory matter—remedy the agency's failure to provide emissions monitoring that is adequate to protect public health. Compare 42 U.S.C. § 7429(c)(2) with 42 U.S.C. 7429(c)(3). Nonetheless, effective parameter monitoring could help to fill the gap as a practical matter. Unfortunately, EPA's parameter monitoring requirements appear to be of little value in determining compliance, and may be unlawful. EPA states that it selected parameters to monitor "that indicate the proper operation of a wet scrubber and that can be monitored continuously at a reasonable expense," yet the agency does not indicate what these parameters are. EPA also states that the maximum and minimum operating parameters are established by determining "what range of operating parameter values represents good operation of the unit and control device and is necessary to achieve compliance with the proposed emission limits." Yet the agency does not even claim that a unit that stays within this range is also in compliance with its emission standards. Nor does the agency claim that failure to stay within these ranges constitutes an enforceable violation. Only if the right parameters are monitored and

only if the ranges for those parameters are correlated directly (i.e. through emissions test data) with emission limits can parameter monitoring be effective.<sup>11</sup> If operating within EPA's chosen parameters does not equal compliance, (and if deviating from those parameters does not equal non-compliance), parameter monitoring is of little use as a compliance tool.

More problematically, the proposal implies that operation within EPA's chosen ranges will be treated as compliance—even though a correlation between the two has not been demonstrated. If this were the case, EPA's range of operating parameters would constitute a different set of de facto emissions standards that does not even purport to comply with the Act's stringency requirements.

In short neither EPA's emissions monitoring requirements nor its operating parameter monitoring requirements will protect public health or allow owners and operators to promptly report deviations, as required by § 503.

Finally, EPA's stated purpose for its monitoring requirements raises serious concerns that these requirements will not support—and were never intended to support—citizen enforcement actions. The agency states that the purpose of its monitoring requirements is to “allow the EPA to determine whether a source is operating in compliance with the regulations.” 64 Fed. Reg. at 67100 (emphasis added). Yet the Clean Air Act plainly provides for enforcement by citizens as well as EPA. 42 U.S.C. § 7604. Given the many and serious flaws in EPA's proposed monitoring scheme, it is unlikely that even EPA will be able to enforce the agency's ICWI standards effectively. See *supra* at 9-10. For citizens, who lack EPA's authority to make inspections and require testing, enforcement will be virtually impossible. Specifically, the absence of any reliable day-to-day emissions information (or information that can be reliably correlated to emissions) will make it impossible for citizens to determine CISWI units' compliance status. By promulgating regulations that openly fail to provide for citizen enforcement—indeed, as a practical matter, preclude it—EPA will contravene the Clean Air Act and frustrate the purpose of Congress.

#### **IV. DEFINITION OF “SOLID WASTE”**

EPA has defined “solid waste” unlawfully and far too narrowly. As a result, many CISWI units will not be subject to § 129 regulations, and may not be regulated at all. Because the exempted units emit hazardous air pollutants, EPA's failure to regulate these facilities would threaten public health.

The Clean Air Act provides that solid waste shall have the meaning established by EPA pursuant to the Solid Waste Disposal Act (SWDA), which in turn defines “solid waste” as:

any garbage, refuse, sludge from a waste treatment plant, or air pollution control facility and other discarded material.

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<sup>11</sup> To improve the correlation between parameter monitoring and actual emissions, EPA should require periodic emissions testing with portable emissions analyzers.

42 U.S.C. § 6903(27) (emphasis added). See 42 U.S.C. § 7429(g)(6). The only regulatory definition of the crucial term “discarded material” that existed when § 129 was enacted—and, indeed, the only regulatory definition that exists today—is codified in EPA’s regulations for identification and listing of hazardous waste. 40 C.F.R. § 261.2. By providing that “solid waste” shall have the meaning “established by the Administrator pursuant to the SWDA,” Clean Air Act § 129(g)(6) incorporates that Part 261 definition by reference.

EPA appears to argue that because the Part 261 only applies to “hazardous” solid waste, Congress did not intend Part 261’s definition of “solid waste” to be used for regulations under Clean Air Act § 129. 64 Fed. Reg. at 67104 (citing 40 C.F.R. § 261.1(b)(1)). This argument is flatly wrong. Because the definition in 40 C.F.R. § 261.2 was the only definition of “discarded material” that existed when Congress enacted § 129, it is plainly the definition to which Congress referred in § 129(g)(6). Congress cannot be assumed to have defined “solid waste,” by reference to a regulatory definition that EPA might promulgate sometime in the future—i.e., a definition that did not even exist. EPA’s apparent belief that § 129(g)(6) was meaningless until the agency decided to breath life into it nine years later must be rejected as contrary to basic principles of statutory construction. Section 129(g)(6) must be construed to have had meaning when it was enacted, and the only possible meaning is provided by the definition in 40 C.F.R. § 261.2.

EPA’s argument for rejecting the Part 261 definition of “solid waste” finds no support in the fact that the agency chose to limit the application of that definition to hazardous solid waste. See 40 C.F.R. § 261.1(b)(1). Congress was free to use the Part 261 definition regardless of how EPA chose to limit the application of that definition in its regulations: EPA’s decisions about how to use a definition in its regulations do not govern Congress’s decisions about how to use the same definition in its legislation. Moreover the broad definition of solid waste in 40 C.F.R. § 261.2 is entirely consistent with Congress’s plain intent—established by the language and legislative history of § 129—to define “solid waste” broadly as a means to ensure that all solid waste incinerators are covered by § 129. This consistency confirms that § 129(g)(6) incorporates by reference the Part 261 definition of solid waste.

In short, the definition of “solid waste” in 40 C.F.R. § 261.2 does apply to nonhazardous solid waste for the purpose of Clean Air Act § 129. Therefore, EPA must use that definition in its § 129 regulations, and is not free to redefine “solid waste” now.

Even assuming arguendo that EPA is at liberty to redefine solid waste, the agency’s proposed definition still must be rejected as inconsistent with the SWDA and the Clean Air Act. First, the SWDA defines “solid waste” to include “discarded material,” and this term has been held to have its ordinary meaning. AMC v. EPA, 824 F.2d 1177, 1185-1186 (D.C. Cir. 1987). Accordingly, a material that has been disposed of or abandoned is still “discarded material”—and thus “solid waste,” pursuant to the SWDA—even if it is later used for some other purpose. API v. EPA, 906 F.2d 729, 740-741 (D.C. Cir. 1990) (slag from steel making process

was “discarded” even when it entered reclamation furnace).<sup>12</sup> EPA’s proposed definition of “solid waste” excludes any material that has a heat value of 5000 btu/lb and is burned to recover energy—regardless of whether it was previously “discarded.” 64 Fed. Reg. at 67105. Therefore, EPA’s proposed definition fails to give the term “discarded material” its proper meaning under SWDA, and must be rejected.

Second, the Clean Air Act provides that “solid waste” shall have the meaning established by EPA “pursuant to the Solid Waste Disposal Act.” EPA indicates repeatedly, however, that the proposed definition is solely for the purpose of Clean Air Act § 129. 64 Fed. Reg. at 67104-67105. When Congress referred to a definition established “pursuant to” the SWDA, it did not merely mean that the regulatory definition should be governed by the SWDA definition, but also that it should be promulgated under the SWDA and for the purpose of implementing the SWDA. Thus, the proposed definition, which would be established solely for the purpose of Clean Air Act regulations, would not be established “pursuant to” the SWDA. 42 U.S.C. § 7429(g)(6). Moreover, Congress’s reference to the SWDA indicates its intent that “solid waste” have a consistent definition under the Clean Air Act and the SWDA. Inventing a special definition for the purpose of § 129 would frustrate this intent.

EPA’s excessively narrow definition of “solid waste” may also cause the agency to violate §§ 129(a)(1) and 129(g)(1) of the Clean Air Act, which require the agency to establish § 129 regulations for:

any facility which combusts any solid waste material from commercial or industrial establishments.

42 U.S.C. § 7429(g)(1) (emphasis added). Apparently following on its argument that “discarded material” is “fuel” if it has a heat value of 5000 btu/lb or more and is burned for energy recovery, the agency has stated:

EPA ... is developing regulations to limit emissions from hazardous waste combustion in boilers and industrial furnaces. In addition, EPA is also developing regulations under section 112 to limit emissions from burning fuels in stationary sources, such as boilers.

64 Fed. Reg. at 67104 (emphasis added). Because many boilers and process heaters combust waste with a heat value of at least 5000 btu/lb for energy recovery, the waste combustion in these units would qualify as fuel combustion under EPA’s proposed definition of solid waste. 60 Fed. Reg. at 67116 (definition of “solid waste”). Thus, as a result of this regulatory legerdemain, such units would escape § 129 regulation.

Contrary to EPA’s arguments, however, facilities burning “discarded material” are solid waste incineration units whether or not they are burning such material for energy recovery and whether or not such material has a heat value of 5000 btu/lb. See supra at 11-13. Therefore,

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<sup>12</sup> Only if the material is part of an ongoing manufacturing or industrial process within the generating industry is it not “solid waste.” Id. (citing AMC, 824 F.2d at 1186).

EPA's failure to regulate these facilities under § 129 would contravene the Clean Air Act, which defines boilers and process heaters that combust solid waste as "solid waste incineration units" (42 U.S.C. § 7429(g)(1)) and mandates that all such units be regulated under § 129. 42 U.S.C. §§ 7429(a)(1).

EPA attempts to deflect concerns about failure to regulate certain facilities under § 129 by claiming such facilities will be regulated under § 112:

the main purpose of this definition of nonhazardous solid waste is merely to identify which materials (when burned) are subject to regulations developed under section 129 and which materials (when burned) are subject to regulations developed under section 112.

64 Fed. Reg. at 67104. As EPA is well aware, however, many solid waste incineration units (including boilers and process heaters) would not meet major source threshold for regulation under § 112. See 42 U.S.C. § 7412(a)(1) (defining "major source" as any source emitting ten tons per year of any single hazardous air pollutant or twenty-five tons per year of any combination of hazardous air pollutants). Because these incinerators would not be regulated under § 112, the effect of the proposed definition of "solid waste" (whatever EPA's "main purpose" may have been) would be to ensure that they will not be regulated at all.<sup>13</sup>

In sum, EPA's proposed definition of "solid waste" is unlawful and dangerous. Because the emissions from incinerators are toxic whether or not the materials being combusted have a heat value of 5000 btu/lb and whether or not the incinerator is being used for heat recovery, a failure to regulate these facilities threatens public health and the environment. EPA must abandon the proposed definition. The agency must use the definition established in Part 261. In the alternative, EPA must—at a minimum—promulgate a definition that gives proper weight and effect to the term "discarded material." See supra at 12-13.

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<sup>13</sup> It is possible that area source incinerators could be regulated under §§ 112(c)(3) or 112(c)(6) of the Act, but EPA has provided no indication that these facilities would meet the requirements of those sections. Nor has EPA provided any assurance that it plans to use its authority under those sections to regulate area source incinerators. Indeed, in a recent meeting with environmental groups, EPA indicated that it deliberately planned to exploit § 112's major source threshold as a means to avoid promulgating regulations for another category of incinerators comprised entirely of area sources, sewage sludge incinerators. Specifically, the agency announced it would: (1) determine that sewage sludge incinerators—a category previously slated for § 129 regulations—are subject to § 112, not § 129; (2) find that no sewage sludge incinerators are major sources; and, (3) then decline to promulgate any regulations. In short, even if area source incinerators could be regulated under § 112, the agency's apparent willingness to engage in such cynical tactics to avoid regulation indicates that promulgation of § 112 regulations for area source incinerators is highly unlikely.

## V. FAILURE TO REGULATE DRUM RECLAIMER INCINERATORS AND PARTS RECLAIMER INCINERATORS.

Based on the Incinerator Working Group's Regulatory Alternatives Paper (September 8, 1998) ("September RAP"), it appears that more than 1500 CISWI units are operating in the United States. September RAP (Ex. C hereto) at 18-24. Nonetheless, EPA expects that the proposed rule to affect a maximum of only 116 units. 64 Fed. Reg. at 67107. The difference of approximately 1400 units appears largely to reflect a decision by the agency not to regulate approximately 1350 parts reclaimer incinerators and fifty-five drum reclaimer incinerators. See Ex. C at 22.

Parts reclaimer incinerators and drum reclaimer incinerators, by EPA's own description, combust solid waste—the residue in steel containers and the coatings on various types of metal parts. Ex. C at 41. See *supra* at 11-14 (regarding definition of "solid waste") Further, the steel containers and metal parts that are placed in these incinerators may also be solid waste, although EPA's description of this category leaves that issue unclear.

Because the residue and coatings burned in parts reclaimer incinerators and drum reclaimer incinerators is solid waste (and because the drums and parts that are placed in these incinerators may also be solid waste), these facilities are CISWI units and must be subject to EPA's CISWI regulations. Accordingly, EPA's failure to regulate these units under its CISWI regulations would be unlawful. In addition, EPA's failure to explain its decision not to regulate parts reclaimer incinerators and drum reclaimer incinerators would be arbitrary and capricious.

EPA's apparent decision not to regulate drum reclaimer incinerators under § 129 is particularly disturbing.<sup>14</sup> Among the waste that is placed in these units are containers that held hazardous waste, and that still hold significant amounts of residue from that waste.<sup>15</sup> Burning this type of residue has the obvious potential to cause extremely toxic emissions. Given this potential, the agency's decision not to regulate these facilities under § 129 is reprehensible. As

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<sup>14</sup>Although EPA's proposal provides no explanation for this decision, it appears that drum reclaimer incinerators can combust the waste in any container that is "empty," as that term is defined under the SWDA. Regulatory Options Paper (Docket A-94-63, Item II-B-1) ("ROP"). Under EPA's regulatory definition, a drum is "empty" even if it still has up to one inch of residue on the bottom or (for a drum of less than 110 gallons) if it still contains residue equaling three percent of its total capacity. 40 C.F.R. § 261.7. Therefore, drum reclaimer incinerators can combust large quantities of waste that, but for EPA's definition of "empty," would qualify as hazardous waste under the SWDA.

<sup>15</sup> Even in the absence of emissions data, EPA experts have recognized that drum reclaimer incinerators emit dioxin. See EPA, The Inventory of Sources of Dioxin in the United States, (excerpts attached as Ex. D hereto) at 7-18 – 7-20. Moreover, given that the drums contain concentrated residue that (but for EPA's definition of "empty") would qualify as hazardous waste, it is likely that they emit significant quantities of many other toxins as well. Regrettably, it appears that EPA has made no effort to determine what substances are being combusted in drum reclaimer incinerators, or what substances are being emitted from the combustion process. See Ex. C at 39-40 (indicating EPA has no emissions test data for drum reclaimer incinerators).

EPA is well aware, few (if any) drum reclaimer incinerators meet the "major source" threshold under Clean Air Act § 112. Therefore, it is likely that if EPA does not regulate these facilities under § 129, the category will escape regulation altogether. See supra at 14 n.13. In short, it appears that EPA is deliberately refusing to regulate drum reclaimer incinerators, even though the agency knows that its refusal is likely to have serious effects on the environment and on people's health.

**VI. FAILURE TO ESTABLISH STANDARDS FOR POLYCHLORINATED BIPHENYLS, POLYCYCLIC ORGANIC MATTER AND POLYAROMATIC HYDROCARBONS.**

The Clean Air Act authorizes EPA to establish numerical emission limits for substances other than those enumerated in § 129(a)(4). In this rulemaking, EPA should use that authority to establish emission limits for polychlorinated hydrocarbons (PCBs), polycyclic organic matter (POM) and polyaromatic hydrocarbons (PAHs). These are all highly toxic, persistent bioaccumulative pollutants that probably are emitted by CISWI units (including drum reclaimer incinerators and parts reclaimer incinerators). Failure to establish emission standards for these pollutants in this rulemaking would mark yet another missed opportunity to obtain the reductions in these pollutants that Congress intended. See 42 U.S.C. § 7412(c)(6). Therefore, if EPA has emissions data for these pollutants, it should use that data to establish emission standards. If EPA does not have the emissions data necessary to establish emissions standards for PCBs, POM and PAHs, the agency should use its authority under § 114 of the Clean Air Act to obtain such data.

## EXHIBIT D



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
RESEARCH TRIANGLE PARK, NC 27711

AUG 17 2001

OFFICE OF  
AIR QUALITY PLANNING  
AND STANDARDS

Mr. James S. Pew  
Earthjustice Legal Defense Fund  
1625 Massachusetts Ave., NW, Suite 702  
Washington, D.C. 20036-2212

Dear Mr. Pew:

This letter is to inform you that the Environmental Protection Agency (EPA) is granting the petition that you filed on behalf of the Louisiana Environmental Action Network and the National Wildlife Federation requesting that the Agency reconsider certain elements of its regulations for commercial and industrial solid waste incinerators (CISWI). Specifically, the petition notes that after the period for public comment on the CISWI regulations, the EPA promulgated a definition of "commercial and industrial waste." The petition also notes that this definition was not included in the proposed rule, and that there was no indication in the proposed rule that the EPA intended to promulgate such a definition. Finally, the petition notes that EPA modified its definition of "commercial and industrial solid waste incineration unit" after publication of the proposed rule, and that this modified definition referred to and incorporated the newly adopted definition of "commercial and industrial waste." You indicated that you believe that these definitions are of central relevance to the outcome of the rule, and requested that EPA convene a proceeding for reconsideration of these elements of the CISWI regulations in order to provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed.

The EPA agrees that the definitions of "commercial and industrial waste" and "commercial and industrial solid waste incineration unit" are of central importance to the CISWI rule. We believe that as a matter of regulatory prudence it is appropriate in this instance for the Agency to convene further proceedings to allow an opportunity for additional public comment on these issues.

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Therefore, the EPA is granting your petition for reconsideration, and shall convene a proceeding for reconsideration of those elements of the CISWI rule related to the definitions of "commercial and industrial waste" and "commercial and industrial solid waste incineration unit."

Sincerely,

  
John A. Seitz  
Director  
Office of Air Quality Planning  
and Standards

cc: Louisiana Environmental Action Network  
162 Croydon Avenue  
Baton Rouge, LA 70806

National Wildlife Federation  
506 East Liberty Street, 2<sup>nd</sup> Floor  
Ann Arbor MI 48104-2210

## EXHIBIT E

UNITED STATES COURT OF APPEALS  
FOR THE DISTRICT OF COLUMBIA CIRCUIT

SIERRA CLUB, )  
 )  
 Petitioner, ) Case No. 01-1048  
 )  
 v. )  
 )  
 ENVIRONMENTAL PROTECTION AGENCY, )  
 )  
 Respondent. )  
 \_\_\_\_\_ )

**EPA'S UNOPPOSED MOTION FOR  
VOLUNTARY REMAND WITHOUT VACATUR**

Respondent United States Environmental Protection Agency ("EPA" or "Agency") moves the Court to remand without vacatur the final rule at issue here to EPA. By so doing, the Court will allow the Agency to (1) conduct further proceedings to allow an opportunity for additional public comment on certain aspects of the final rule, and (2) reconsider the Agency's approach to setting certain emissions limits in light of a recent decision by this Court that controls key issues in this case. The requested remand without vacatur will serve the interests of judicial efficiency and economy, without any prejudice to Petitioner Sierra Club, Intervenor or any other person.

Counsel for EPA has spoken to counsel for Petitioner Sierra Club, and Petitioner supports this motion for remand without vacatur. Counsel for EPA has spoken to counsel for each group of Intervenor, and Intervenor do not oppose this motion.

In further support of this motion for voluntary remand, EPA states as follows:

1. Petitioner seeks review of a final rule by EPA setting standards for new and existing commercial and industrial solid waste incineration ("CISWI") units pursuant to sections 111 and 129 of the Clean Air Act ("CAA"), 42 U.S.C. §§ 7511, 7429. The rule was published in 65 Fed. Reg. 75,338 (December 1, 2000).

2. The bases for Petitioner's challenge to EPA's rule can be divided into two sets of issues: (1) issues relating to EPA's definition of "commercial and industrial waste" and "commercial and industrial solid waste incinerator" under which the rule does not apply to units that burn waste as fuel for energy recovery, and (2) issues relating the establishment of emission standards and related requirements under 42 U.S.C. § 7429.

3. This Court has noted that agency motions for remand to permit an agency to reconsider its prior proceedings are commonly granted to avoid wasting the resources of the courts and the parties in litigation. Ethyl Corp. v. Browner, 989 F.2d 522, 524 (D.C. Cir. 1993) ("We commonly grant such motions, preferring to allow agencies to cure their own mistakes rather than wasting the courts' and the parties' resources . . .").

4. Remand of this rule is appropriate because both sets of issues before this Court may become moot or, at a minimum, will be significantly narrowed if this motion for remand is granted.

a. With respect to the issues relating to EPA's definition of "commercial and industrial waste" and "commercial and industrial solid waste incineration unit," EPA has granted a petition for agency reconsideration of those definitions filed by National Wildlife Federation ("NWF") and the Louisiana Environmental Action Network ("LEAN") under 42 U.S.C.

§ 7607(d)(7)(B) seeking further proceedings on these issues. In particular, EPA has decided to provide all parties interested in this rulemaking (including Petitioner and Intervenors) with the opportunity to participate in additional notice-and-comment proceedings with respect to these definitions. Remand of the challenged rule to EPA to conduct further proceedings will serve the interests of judicial economy. Moreover, remand to the agency for further proceedings will not prejudice Petitioner, Intervenors or any other person. Indeed, opportunity for further agency proceedings is the relief that Petitioner would obtain if it prevailed before this Court.

b. With respect to issues relating to EPA's approach in establishing emissions standards and related requirements for commercial and industrial solid waste incinerators, a remand of this rule is appropriate to allow EPA to reconsider this rule in light of this Court's recent decision in Cement Kiln Recycling Coalition v. EPA, No. 99-1457, 2001 WL 826523 (D.C. Cir. July 24, 2001), which was decided after EPA promulgated the final rule at issue here. In Cement Kiln, this Court remanded an EPA rule establishing emissions standards and related requirements for another group of incinerators (hazardous waste incinerators). The Court remanded that rule on the grounds that EPA's approach in establishing the minimum stringency of its emissions standards (or "emissions floors") did not meet the requirements of 42 U.S.C. § 7412(d)(3). The language of 42 U.S.C. § 7429(a)(2), which governs the establishment of emissions floors for the standards at issue here, is nearly identical to the statutory provision governing emission floors for hazardous waste incinerators, and EPA's approach to setting emissions floors in the rule at issue here is substantially the same as the approach rejected by this Court in Cement Kiln. Therefore, remand of the rule here is appropriate to allow EPA to reconsider its regulatory approach in light of this recent decision.

5. A remand of the rule without vacatur will not prejudice Petitioner, Intervenors or any other person. All interested parties will have an opportunity to participate in EPA's administrative process that will follow the remand. To the extent that any interested party is not satisfied with EPA's final action following the remand, that party may obtain review in this Court in accordance with the relevant statutory provisions governing judicial review.<sup>4</sup>

6. EPA recognizes that the statutory date for establishing emissions standards and related requirements for commercial and industrial solid waste incinerators passed in 1993. Accordingly, following the requested remand without vacatur, EPA intends to act with all due speed in repromulgating emissions standards and related requirements for commercial and industrial solid waste incinerators consistent with this Court's decision in Cement Kiln.

#### CONCLUSION

For these reasons, EPA's motion for remand without vacatur should be granted.

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<sup>4</sup> Further, this case is unlike Cement Kiln, in which this Court ordered a vacatur and remand because there were industry petitioners that had brought substantive challenges to the rule that were not reached when the Court ordered a remand based on other claims. 2001 WL 826523, \*17 ("we have chosen not to reach the bulk of industry petitioners' claims, and leaving the regulations in place during remand would ignore petitioners' potentially meritorious challenges."). In contrast to Cement Kiln, there are no industry petitioners in this case, and the sole petitioner (Sierra Club) supports a remand without vacatur. Thus, this case is analogous to Sierra Club v. EPA, 167 F.3d 658, 664 (D.C. Cir. 1999), in which there was no industry petitioner and the agency action was remanded without vacatur on Petitioner Sierra Club's request. See also National Lime Ass'n v. EPA, 233 F.3d 625, 635 (D.C. Cir. 2000) (remand without vacatur granted where industry petitioners' claims were considered and rejected); Cement Kiln, 2001 WL 826523, \*17 (discussing these cases).

Respectfully submitted,

JOHN CRUDEN  
Acting Assistant Attorney General



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Office of General Counsel

August 23, 2001

**CERTIFICATE OF SERVICE**

I hereby certify that a copy of the foregoing was served by telecopier and by United States mail, postage prepaid, on August 23, 2000, upon:

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## EXHIBIT F

**United States Court of Appeals**  
FOR THE DISTRICT OF COLUMBIA CIRCUIT

**No. 01-1048**

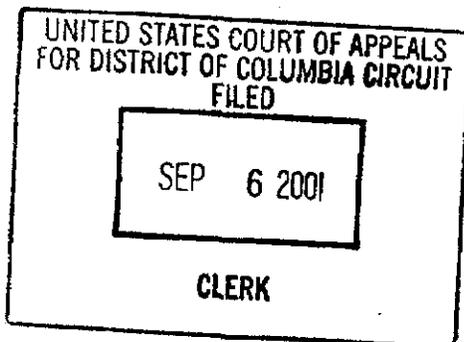
**September Term, 2001**

Sierra Club,  
Petitioner

Filed On:

v.

Environmental Protection Agency,  
Respondent



Utility Solid Waste Activities Group, et al.,  
Intervenors

**ORDER**

Upon consideration of respondent's unopposed motion for voluntary remand without vacatur, it is

**ORDERED** that the motion be granted, and this case is hereby remanded to the *Environmental Protection Agency*.

The Clerk is directed to transmit forthwith to the Environmental Protection Agency a certified copy of this order in lieu of formal mandate.

**FOR THE COURT:**  
Mark J. Langer, Clerk

BY:   
Mark Butler  
Deputy Clerk

November 11, 2004

Michael O. Leavitt  
Administrator, Environmental Protection Agency  
1101A EPA Headquarters  
Ariel Rios Building  
1200 Pennsylvania Ave., NW  
Washington, DC 20460

BY ELECTRONIC MAIL

Dear Administrator Leavitt:

This is a petition under Clean Air Act § 307(d)(7)(B), 42 U.S.C. § 7607(d)(7)(B), submitted by the Natural Resources Defense Council, 1200 New York Avenue, NW, Ste. 400, Washington, DC 20005, and the Environmental Integrity Project, 919 18th Street, NW, Ste. 975, Washington, DC 20006. By this petition, we request that you reconsider certain aspects of the final action taken at 69 Fed. Reg. 55,218 *et seq.* (September 13, 2004) and entitled National Emission Standards for Hazardous Air Pollutants for Industrial, Commercial, and Institutional Boilers and Process Heaters.

Sincerely,

Amanda Leiter  
Natural Resources Defense Council

Eric Schaeffer  
Environmental Integrity Project

**BEFORE THE ADMINISTRATOR  
UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**

_____ )	
In the Matter of the Final Rule: )	
)	
National Emission Standards for Hazardous Air )	OAR-2002-0058
Pollutants for Industrial, Commercial, and )	A-96-47
Institutional Boilers and Process Heaters )	
_____ )	

**PETITION FOR RECONSIDERATION**

Pursuant to Section 307(d)(7)(B) of the Clean Air Act,<sup>1</sup> the Natural Resources Defense Council and the Environmental Integrity Project hereby petition the Administrator of the Environmental Protection Agency (the Administrator, EPA, or the Agency) to reconsider the National Emission Standards for Hazardous Air Pollutants (NESHAP) captioned above and published at 69 Fed. Reg. 55,218 (September 13, 2004).

The Clean Air Act (CAA) directs EPA to establish emissions standards for each category of major sources of hazardous air pollutants (HAPs). These standards, which must reflect the maximum achievable control technology (MACT), are designed to obligate each source in a category to limit its emissions to a level commensurate with the best performers in the industry. In this rule, however, EPA sets only 25 of the 72 MACT standards that the Agency itself identifies as necessary to control emissions from industrial, commercial, and institutional (ICI) boilers and process heaters.<sup>2</sup> That is, the

<sup>1</sup> 42 U.S.C. § 7607(d)(7)(B).

<sup>2</sup> These 72 standards correspond to emissions of (1) non-mercury metallic HAP, mercury, inorganic HAP, or organic HAP from (2) existing or new-or-reconstructed units (3) that are large, small, or limited-use, and (4) that burn solid, liquid, or gaseous fuels.

agency entirely fails to adopt 47 of the 72 necessary control standards.<sup>3</sup> Moreover, EPA further attempts to evade the MACT requirement by creating “health-based compliance alternatives” for two significant HAPs, hydrogen chloride (HCl) and manganese (Mn), and allowing individual large, solid-fuel sources to choose whether to meet the category-wide MACT standard for these HAPs or instead to submit data demonstrating compliance with the more lenient health-based alternatives. By declining to set most of the necessary standards, and by creating individualized, risk-based MACT exemptions<sup>4</sup> for large, solid-fuel sources of HCl and Mn, EPA fundamentally subverts the CAA’s MACT program, which depends for its success on the promulgation of a comprehensive set of easily-enforced, category-wide, technology-based HAP standards.

We seek reconsideration of the rule on seven principal grounds: (1) EPA has no legal justification for its refusal to adopt almost two-thirds of the standards necessary to regulate HAP emissions from ICI boilers and process heaters; (2) the CAA does not authorize plant-by-plant, risk-based exemptions from otherwise applicable, category-wide emissions standards; (3) even if such exemptions were otherwise lawful, EPA may not adopt them for pollutants like HCl and Mn, for which the necessary health thresholds are not established; (4) even if such thresholds were established, they would likely be exceeded under this rule, because the risk-based exemptions fail to account for alternative sources and background levels of HCl and Mn; (5) compounding the two preceding problems, EPA uses HCl as a surrogate for other (unidentified) non-metallic, inorganic pollutants, for which health thresholds may or may not be established; (6) the Agency has

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<sup>3</sup> We do not concede that EPA is correct to identify only 72 standards as necessary to control emissions from ICI boilers and process heaters. Rather, we argue that once the Agency has identified those 72 standards, it cannot evade its statutory responsibility to set numerical emissions limits for each one.

<sup>4</sup> EPA itself calls the health-based alternatives “exemptions” in various places in the rule. *See, e.g.*, 69 Fed. Reg. at 55,240-41.

structured the Mn exemption in such a way that it effectively permits plants with low Mn emissions to avoid controlling emissions of other non-mercury metals; and finally, (7) the described procedures for demonstrating compliance with the § 112(d)(4) risk-based exemptions are significantly flawed.

Reconsideration of these seven issues is appropriate because they are of central relevance to the outcome of the rule, and most could not practicably have been raised during the public comment period. The Administrator must therefore “convene a proceeding for reconsideration of the rule and provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed.”<sup>5</sup>

In addition, we ask that EPA stay the effectiveness of the rule’s risk-based exemptions. A stay is warranted because under the final rule, existing sources of HCl and Mn that wish to take advantage of the exemptions must submit the relevant data to EPA “one year prior”<sup>6</sup> to the rule’s fixed compliance date for such sources (September 13, 2007<sup>7</sup>), and new or reconstructed sources that begin operation after their compliance date (November 12, 2004<sup>8</sup>) must take similar action “within 180 days” of startup.<sup>9</sup> EPA should not encourage members of the regulated community to waste time and resources demonstrating that they meet unlawful risk-based exemptions when those exemptions are legally unjustified. Nor should the Agency permit sources to delay compliance with the binding MACT standards for HCl and Mn based on a false hope that the exemptions will

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<sup>5</sup> 42 U.S.C. § 7607(d)(7)(B). Simultaneously with this petition, we are filing a petition for review of this rule in the U.S. Court of Appeals for the D.C. Circuit.

<sup>6</sup> 69 Fed. Reg. at 55,284.

<sup>7</sup> *Id.* at 55,254.

<sup>8</sup> *Id.*

<sup>9</sup> *Id.* at 55,284.

withstand legal challenge. Thus, EPA should exercise its authority under section 307(d)(7)(B) of the CAA<sup>10</sup> to stay the effectiveness of the exemptions during the course of the reconsideration proceedings.

Indeed, given the likely success of this petition for reconsideration, EPA should not only grant a limited stay under section 307(d)(7)(B) but also take the necessary administrative steps to stay the risk-based exemptions indefinitely pending judicial review. Such exemptions are completely at odds with the basic purpose and structure of the MACT requirements. EPA should not ask sources to embark on a fool's errand of demonstrating compliance with these unlawful alternative standards, nor should the Agency waste limited federal resources reviewing and approving sources' compliance data.

## **1. EPA Must Reconsider Its Adoption of Numerous "No Control" Standards.**

### **a. EPA has a clear statutory obligation to adopt MACT standards for each HAP emitted by a major source in a listed category or subcategory.**

The language of the CAA is unequivocal: Under subsections 112(c)(2) and (d)(1), EPA "*shall* promulgate regulations establishing emission standards for *each* category or subcategory of major sources and area sources of hazardous air pollutants listed for regulation."<sup>11</sup> As the D.C. Circuit has observed, this amounts to a "clear statutory obligation to set emission standards for each listed HAP."<sup>12</sup> Moreover, the CAA strictly cabins the Agency's discretion in setting these standards. For new HAP sources, EPA must adopt a standard no "less stringent than the emission control that is achieved in

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<sup>10</sup> 42 U.S.C. § 7607(d)(7)(B) ("The effectiveness of the rule may be stayed during ... reconsideration ... by the Administrator ... for a period not to exceed three months.").

<sup>11</sup> *Id.* § 7412(d)(1) (emphasis added).

<sup>12</sup> *National Lime Assn. v. EPA*, 233 F.3d 625, 634 (D.C. Cir. 2000) (*National Lime*).

practice by the best controlled similar source,”<sup>13</sup> and for existing sources, it must adopt a standard no “less stringent ... than ... the average emission limitation achieved by the best performing 12 percent of the existing sources ... in the category or subcategory.”<sup>14</sup>

**b. The final rule falls far short of meeting that obligation.**

Despite the clarity of these statutory obligations, the ICI boiler and process heater rule fails to establish numerical standards for almost two-thirds of the boiler-size/fuel-type/HAP groupings listed in the rule. EPA first indicates that it plans to regulate (1) existing and new-or-reconstructed units, (2) that are large, small, or limited-use, (3) that burn solid, liquid, or gaseous fuel, and (4) that emit non-mercury metallic HAPs (arsenic, beryllium, cadmium, chromium, lead, manganese, nickel, and selenium<sup>15</sup>), mercury, inorganic HAPs (predominantly HCl<sup>16</sup>), or organic HAPs (predominantly formaldehyde, benzene, and acetaldehyde<sup>17</sup>). To regulate each of these groupings, EPA would need to adopt 72 MACT standards, ranging from a standard for non-mercury metallic HAP emissions from existing, large, solid-fuel units to a standard for organic HAP emissions from new, limited-use, gaseous units. Yet EPA sets numerical standards for only 25 of these groupings, adopting a “no control” standard for the remaining 47.<sup>18</sup> Thus, the rule violates the Act.

**c. Reconsideration is warranted because the proposed rule failed to identify or explain the supposed legal basis for adoption of “no control” standards.**

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<sup>13</sup> 42 U.S.C. § 7412(d)(3).

<sup>14</sup> *Id.* § 7412(d)(3)(A). For subcategories with fewer than 30 sources, the Agency must instead adopt a standard “no less stringent ... than ... the average emission limitation achieved by the best performing 5 sources.” *Id.* § 7412(d)(3)(B).

<sup>15</sup> 69 Fed. Reg. at 55,220.

<sup>16</sup> *Id.*

<sup>17</sup> *Id.*

<sup>18</sup> See 69 Fed. Reg. at 55269-270, Table 1 to Subpart DDDD of Part 63; Memorandum from Roy Oommen, Eastern Research Group, to Jim Eddinger, U.S. EPA, “MACT Floor Analysis for the Industrial, Commercial, and Institutional Boilers and Process Heaters National Emission Standards for Hazardous Air Pollutants” (October 2002), OAR-2002-0058-0028, at table 8-1 (summarizing MACT floor emission limits for boiler-size/fuel-type/HAP groupings).

In the proposed ICI boiler and process heater rule,<sup>19</sup> the Agency signaled its intention to set “no control” standards for many of the identified boiler-size/fuel-type/HAP groupings. The proposed rule proffered various justifications for this dereliction of duty. For example, for new, small, solid-fuel-fired units, EPA indicated that “no control technology being used in the existing population of boilers and process heaters ... consistently achieved lower emission rates than uncontrolled levels, such that a best controlled similar source for organic HAP could be identified,” so “the MACT floor for new sources in this subcategory is no emissions reductions for organic HAP.”<sup>20</sup> For similar reasons, EPA proposed adopting a “no control” standard for mercury emissions from new, liquid-fired units,<sup>21</sup> and for all emissions except organic HAPs from new, gas-fired units.<sup>22</sup> For *existing* units, the Agency proposed adopting “no control” standards for all but 4 of the 36 boiler-size/fuel-type/HAP groupings. For some groupings, the Agency justified this omission by noting that “fewer than 6 percent of units in [the] grouping used controls or limited emissions, [so] the median unit for [the] grouping reflect[ed] no emissions reduction.”<sup>23</sup> For other groupings, EPA observed that “uncontrolled units (or units with low efficiency add-on controls) were ... identified as being among the best performing 12 percent of sources” due solely to “characteristics of the fuel that they burn” rather than the efficacy of their control technologies.<sup>24</sup> Anticipating the obvious rejoinder to this observation—the Agency should require fuel switching as part of the MACT standard—EPA stated only that while such switching

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<sup>19</sup> 68 Fed. Reg. 1660 (Jan. 13, 2003).

<sup>20</sup> *Id.* at 1682.

<sup>21</sup> *Id.* at 1683-84.

<sup>22</sup> *Id.* at 1684.

<sup>23</sup> *E.g., id.* at 1676.

<sup>24</sup> 68 Fed. Reg. at 1672.

would decrease some HAP emissions, it might increase others, and “assess[ing] the relative risk associated with each HAP emitted, and determin[ing] whether requiring [fuel switching] would result in overall lower risk,” would require “analysis . . . not appropriate at this stage in the regulatory process.”<sup>25</sup>

Various commenters to the proposed rule identified the central flaw in these justifications: As the D.C. Circuit has repeatedly recognized,<sup>26</sup> the CAA requires promulgation of a numerical standard for HAP emissions from each identified major source category or subcategory, even if existing plants in the category or subcategory do not provide a ready example of a control technology adequate to achieve that standard. That is, EPA’s sole legal obligation in this respect is to adopt numerical HAP standards that reflect the emissions levels achieved by the best performing plants in the category or subcategory;<sup>27</sup> the Agency need not consider how individual plants will achieve that standard (i.e., by adopting control technologies, switching fuels, implementing process changes, or some combination of the above), and it certainly may not absolve itself of the obligation to set MACT standards simply because those standards will pose a greater challenge for some plants than for others.

Making this point in its comments to the proposed rule, Earthjustice observed:

EPA argues that it could not set floors at the emission levels achieved by the best performing sources because these sources did not necessarily have the best add-on control equipment. 68 Fed. Reg. at 1672. The agency goes on to claim that the best performing units are not necessarily the “best-controlled” because they may have lower efficiency end-of-stack control equipment. *Id.* EPA completely misreads the mandate of § 112’s

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<sup>25</sup> *Id.*

<sup>26</sup> See, e.g., *Cement Kiln Recycling Coalition v. EPA*, 255 F.3d 855, 861, 865 (D.C. Cir. 2001) (*CKRC*); *National Lime*, 233 F.3d at 633-34.

<sup>27</sup> See *CKRC*, 255 F.3d at 865 (“Section 7412(d)(3) requires only that EPA set floors at the emission level achieved by the best-performing sources. If EPA cannot meet this requirement using the MACT methodology, it must devise a different approach capable of producing floors that satisfy the [CAA].”).

floor requirement—a remarkable achievement given that the D.C. Circuit has now explained that requirement three times. Floors under §112 must reflect the emission levels actually achieved by the “best performing” sources—i.e., those with the lowest emission levels—not the ones that EPA deems to be the “best controlled.” [*Cement Kiln Recycling Coalition v. EPA*, 255 F.3d 855, 861, 865 (D.C. Cir. 2001) (*CKRC*)]. It does not matter how these sources achieve their superior emission levels; they may do so by burning a cleaner fuel, by being better designed or newer, by being better maintained or operated, by using better end-of-stack control technologies, or by using more than one control technology. EPA’s simple but mandatory task is to identify the relevant best performing sources—regardless of how they are achieving their superior emission levels—and set standards reflecting the average emission level these sources are achieving. Thus, EPA’s contention that floors reflecting the emission levels achieved by the best performers may not reflect what is achievable for all sources through using a chosen control technology is irrelevant. Further, EPA’s contention that floors must reflect what is achievable through using a chosen control technology is flatly unlawful; indeed, that contention has already been rejected twice by the D.C. Circuit. *CKRC*, 255 F.3d at 861, 865; *National Lime Assn. [v. EPA]*, 233 F.3d 625, 633 (D.C. Cir. 2000) (*National Lime*).]<sup>28</sup>

Nowhere in the proposed rule did EPA address this central legal defect in its chosen approach. Indeed, in direct contravention of CAA § 307(d)(3)(C), which requires that any proposed rule “include a summary” of “major ... underlying ... legal interpretations,”<sup>29</sup> the proposed rule does not mention the two key D.C. Circuit decisions, *CKRC* and *National Lime*, even though the Agency’s proposed course of action departs from the holdings in those cases in a manner that demands explanation.

In the final rule, the Agency tries to remedy this glaring omission by offering a novel—and insupportable—interpretation of *National Lime* (though the Agency again fails to grapple with *CKRC*). In *National Lime*, the court considered challenges to EPA regulations setting emissions standards for cement manufacturing facilities. The regulations “established emission floors of ‘no control’ for HCl, mercury, and total

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<sup>28</sup> Comments of Earthjustice to the Proposed NESHAP for ICI Boilers and Process Heaters, OAR-2002-0058-0451, 7-8.

<sup>29</sup> 42 U.S.C. §7607(d)(3)(C).

hydrocarbons ... because the Agency found no cement plants using control technologies for these pollutants.”<sup>30</sup> Observing that “[n]othing in the [CAA] even suggests that EPA may set emission levels only for those listed HAPs controlled with technology,” the court found the “no control” standards “contrary to the [CAA’s] plain language” and remanded the regulations “for EPA to ... set[] emission standards for those pollutants.”<sup>31</sup>

EPA attempts to distinguish the “no control” standards repudiated in *National Lime* from those adopted in the final ICI boiler and process heater rule as follows:

In the *National Lime* case, the court threw out EPA’s determination of a no control floor because it was based only on a control technology approach. The court stated that EPA must look at what the best performers [in the category or subcategory] achieve, regardless of how they achieve it. Therefore, our determination that the MACT floor for certain subcategories or HAP is ‘no emissions reduction’ is lawful because we determined that the best-performing sources were not achieving emissions reductions through the use of an emission control system and there were no other appropriate methods by which boilers and process heaters could reduce HAP emissions.<sup>32</sup>

That is, apparently, EPA feels it is justified in ignoring § 112’s mandate in the ICI boiler and process heater context because the Agency’s determination of “no control” floors in this instance is not “based only on a control technology” but also on an assessment—however arbitrary, self-serving, and lacking in record support—that other methods of achieving emissions reductions are not “appropriate” (a term the Agency never defines).

This cramped reading of the D.C. Circuit’s broad language is untenable. The court states unequivocally that EPA has a “clear statutory obligation to set emission standards for each listed HAP.”<sup>33</sup> The court does observe that EPA must set standards

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<sup>30</sup> 233 F.3d at 632.

<sup>31</sup> *Id.* at 628, 633-34.

<sup>32</sup> 69 Fed. Reg. at 55,233.

<sup>33</sup> 233 F.3d at 634.

even “for HAPs not controlled with technology,”<sup>34</sup> but to read this requirement (set standards even if no technology is readily available to achieve that standard) to permit EPA *not* to set standards when achieving the standards might require a combination of several approaches (such as fuel switching, and/or process changes, and/or installation of technological controls) is patently absurd.

EPA does not and cannot claim that the best performing ICI boilers and process heaters in each subcategory perform no better than worse performing units. The Agency says only (1) that the best performing plants do not consistently use control technologies different from worse performing plants, (2) that process changes or work practices “would be ineffective in reducing [some] fuel related HAP emissions,”<sup>35</sup> and (3) that EPA cannot be bothered to do the analysis necessary to determine whether fuel switching would produce net reductions in overall HAP emissions.<sup>36</sup>

*National Lime* unequivocally holds that such excuses do not absolve the Agency of its statutory obligation to set MACT standards for HAP emissions from each and every identified category or subcategory of major source.<sup>37</sup> Moreover, *CKRC* resolves any remaining doubt on the subject. In that case, the court held that in setting MACT standards, EPA must “set floors at the emission level achieved by the best-performing sources,” whether the Agency does so using “MACT methodology” or by “consider[ing] factors such as ‘process changes, substitution of materials or other modifications ...

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<sup>34</sup> *Id.*

<sup>35</sup> 69 Fed. Reg. at 55,233.

<sup>36</sup> See 68 Fed. Reg. at 1672 (claiming, with no justification, that analysis of the HAP-related consequences of fuel switching is “not appropriate at this stage in the regulatory process”).

<sup>37</sup> See generally 233 F.3d at 633-34.

design, equipment, work practice, or operational standards ... [or] a combination of the above.”<sup>38</sup>

In short, EPA’s legal justification for its adoption of 47 “no control” standards is tortured and wholly inadequate. Because—contrary to § 307(d)(3)(C)<sup>39</sup>—the Agency first stated that justification in the final rule, we were unable to identify the specific flaws in the legal analysis until after the comment period closed. The flaws exposed by our objections go to the heart of the final rule, casting significant legal doubt on the “standards” adopted for 47 of the 72 boiler-size/fuel-type/HAP groupings identified in the rule. Accordingly, the Agency must “convene a proceeding for reconsideration of [those 47 standards] and provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed.”<sup>40</sup>

## **2. EPA Must Reconsider the Final Rule’s Risk-Based Exemptions for HCl and Mn Emissions.**

### **a. The proposed rule’s description of the risk-based exemptions was inadequate to provide public notice of the likely contours of the program.**

The final ICI boiler and process heater rule creates risk-based exemptions for large, solid-fuel sources of two important HAPs, HCl and Mn. The rule lays out the methodology and criteria individual plants may use to demonstrate eligibility for these exemptions in a detailed, five-page appendix, Appendix A.<sup>41</sup> The following examples serve to illustrate the level of specificity in Appendix A:

- It includes two tables (one for HCl and one for Mn), each of which lists 132 “allowable toxicity-weighted emission rate[s],” corresponding to 132 stack-

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<sup>38</sup> 255 F.3d at 863-65 (quoting 42 U.S.C. § 7412(d)(2)(A)-(E)).

<sup>39</sup> 42 U.S.C. § 7607(d)(3)(C).

<sup>40</sup> *Id.* § 7607(d)(7)(B).

<sup>41</sup> 69 Fed. Reg. at 55,282.

height/distance-to-property-boundary pairings, for use in determining that a particular facility's HCl- or Mn-equivalent emissions rates qualify for the risk-based exemptions;<sup>42</sup>

- It identifies a specific EPA technical resource document, "Air toxics Risk Assessment Reference Library, Volume 2, Site-Specific Risk Assessment," as "[a]n example of one approach for performing a site-specific compliance demonstration for air toxics";<sup>43</sup>
- It contains detailed instructions on how monitoring data that do not detect HCl or Mn (so-called "nondetect data") should be handled in determining emissions rates from a source facility;<sup>44</sup> and
- It lists certain elements that a facility's "site-specific compliance demonstration" must contain, including an estimate of "long-term inhalation exposures" from the facility, and an estimate of "inhalation exposure for the individual most exposed to the facility's emissions."<sup>45</sup>

In contrast to Appendix A, the proposal's discussion of risk-based exemptions was both muddy and absurdly scant. For example, the proposal identified "*three* mechanisms that ... could be used"<sup>46</sup> to implement the exemptions, the first and third of which ("an applicability cutoff for threshold pollutants ... under ... section 112(d)(4)"<sup>47</sup> and "a concentration-based applicability threshold,"<sup>48</sup> respectively) are not in fact two mechanisms but one—a fact the final rule, which adopts this mechanism, apparently recognizes.<sup>49</sup> Even more concerning, the proposal only identified HCl as a possible subject of a risk-based exemption, never mentioning an exemption for Mn. Finally, although the proposed rule indicated both (1) that EPA had "chose[n] to use HCl as a

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<sup>42</sup> *Id.* at 55,286, Tables 2 and 3 to Appendix A of Subpart DDDDD.

<sup>43</sup> *Id.* at 55,283 § 7.

<sup>44</sup> *Id.* at 55,283 § 4(f).

<sup>45</sup> *Id.* at 55,283-84 § 7(c).

<sup>46</sup> 68 Fed. Reg. at 1688 (emphasis added).

<sup>47</sup> *Id.*

<sup>48</sup> *Id.*

<sup>49</sup> Both involve exemptions for individual facilities that "can demonstrate that their emissions of threshold pollutants would not result in air concentrations above the threshold levels." *Id.* at 1689. *See also id.* at 1692 (defining the third approach as "an applicability cutoff for the threshold pollutant hydrogen chloride" for "individual facilities that can demonstrate that their emissions of hydrogen chloride will not result in air concentrations above the inhalation reference concentration for hydrogen chloride").

surrogate ... [for] inorganic HAP,”<sup>50</sup> and (2) that the Agency was considering adopting a risk-based “applicability cutoff” for HCl,<sup>51</sup> the proposal never acknowledged the deleterious implications of the latter policy choice for the former.

With respect to the technical details of the risk-based exemption mechanism, the proposed rule stated only that EPA was considering a “[t]iered analytical approach.”<sup>52</sup>

The entirety of the Agency’s description of this approach was as follows:

Establishing that a facility meets the cutoffs established under CAA section 112(d)(4) will necessarily involve combining estimates of pollutant emissions with air dispersion modeling to predict exposures. The EPA envisions that we would promote a tiered analytical approach for these determinations. A tiered analysis involves making successive refinements in modeling methodologies and input data to derive successively less conservative, more realistic estimates of pollutant concentrations in air and estimates of risk.

As a first tier of analysis, EPA could develop a series of simple look-up tables based on the results of air dispersion modeling conducted using conservative input assumptions. By specifying a limited number of input parameters, such as stack height, distance to property line, and emission rate, a facility could use these look-up tables to determine easily whether the emissions from their sources might cause a hazard index limit to be exceeded.

A facility that does not pass this initial conservative screening analysis could implement increasingly more site-specific but more resource-intensive tiers of analysis using EPA-approved modeling procedures, in an attempt to demonstrate that exposure to emissions from the facility does not exceed the hazard index limit. The EPA's guidance could provide the basis for conducting such a tiered analysis. [FN8]

FN8 "A Tiered Modeling Approach for Assessing the Risks due to Sources of Hazardous Air Pollutants." EPA-450/4-92-001. David E. Guinnup, Office of Air Quality Planning and Standards, USEPA, March 1992.

The EPA requests comment on methods for constructing and implementing a tiered analytical approach for determining applicability of

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<sup>50</sup> *Id.* at 1671.

<sup>51</sup> *Id.* at 1692.

<sup>52</sup> *Id.* at 1691.

the CAA section 112(d)(4) criterion to specific industrial boiler and process heater sources. It is also possible that ambient monitoring data could be used to supplement or supplant the tiered modeling approach described above. It is envisioned that the appropriate monitoring to support such a determination could be extensive. The EPA requests comment on the appropriate use of monitoring in the determinations described above.<sup>53</sup>

Even a reader new to “tiered modeling approach[es]” can easily recognize that innumerable details are missing from this description. For example: What air dispersion models will be acceptable? Will the lookup tables be published as part of the final rule or included in some external EPA database? How will EPA arrive at the emissions levels listed in those tables? What are “conservative input assumptions”?<sup>54</sup> Will facilities that resort to site-specific modeling be required to account for such seemingly relevant site-specific factors as weather (e.g., wind speed, average precipitation levels, etc.) and altitude? What might “appropriate monitoring”<sup>55</sup> include?

These omissions might be less concerning if the report on which EPA apparently relied in crafting the exemption proposal, David E. Guinnup’s “A Tiered Modeling Approach for Assessing the Risks due to Sources of Hazardous Air Pollutants,”<sup>56</sup> were included in the docket. But not only is that report missing from the docket, it appears nowhere in the final rule. If EPA in fact relied on the report in crafting either the proposal or the final rule, the CAA requires that the relevant portions of the report be included in the docket.<sup>57</sup> If the final version of the risk-based exemptions did *not* derive

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<sup>53</sup> 68 Fed. Reg. at 1691.

<sup>54</sup> *Id.*

<sup>55</sup> *Id.*

<sup>56</sup> *Id.*

<sup>57</sup> See 42 U.S.C. §§ 7607(d)(3) (“All data, information, and documents referred to in this paragraph on which the proposed rule relies shall be included in the docket on the date of publication of the proposed rule.”), 7607(d)(4)(B)(i) (“All documents ... which the Administrator determines are of central relevance to the rulemaking shall be placed in the docket as soon as possible after their availability.”).

from this report, that fact serves only to underline the proposal's paucity of details about the possible contours of those exemptions.

Due to the lack of detail in the proposal, most of our objections to the risk-based exemptions arose upon publication of the final rule, after the period for public comment had closed. Yet those objections, detailed below, are centrally relevant to the final rule, as even EPA's "preliminary 'rough' assessment of the large solid fuel subcategory" indicates that over 800 large, solid-fuel boilers could take advantage of the exemptions to evade otherwise applicable, CAA-mandated MACT standards.<sup>58</sup> Therefore, under CAA § 307(d)(7)(B), EPA must reconsider both the concept and the practicalities of the exemptions. In so doing, the Agency should take into account the following legal and analytical objections, each of which calls into question the validity of those exemptions and is thus "of central relevance to the outcome" of the final ICI boiler and process heater rule.<sup>59</sup>

**b. CAA § 112(d)(4) does not support the adoption of individualized, risk-based exemptions.**

EPA calls its § 112(d)(4)-based MACT exemptions "health-based compliance alternatives,"<sup>60</sup> but this euphemism cannot disguise the exemptions' true nature: They are a clear attempt to exempt individual HAP sources in a listed category from CAA-mandated HAP standards. That attempt contravenes the Act and is arbitrary and capricious.

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<sup>58</sup> 69 Fed. Reg. at 55,244.

<sup>59</sup> 42 U.S.C. § 7607(d)(7)(B).

<sup>60</sup> *E.g.* 69 Fed. Reg. at 55,227.

**i. The plain language of the Act specifies that EPA can neither refuse to set emissions standards for listed sources nor exempt individual sources from otherwise-applicable standards.**

As discussed above, the CAA's MACT requirements are unequivocal: When a source category is listed, the Agency must establish emission standards that apply to the entire category. Section 112(c)(2) of the Act, "Requirement for emissions standards," states that "[f]or the categories and subcategories the Administrator lists, the Administrator shall establish emission standards under subsection (d) of this section."<sup>61</sup> Likewise, § 112(d)(1) instructs the Agency to "promulgate regulations establishing emission standards for each category or subcategory of major sources and area sources of hazardous air pollutants listed for regulation pursuant to subsection (c) of this section."<sup>62</sup> Applying this plain language, *National Lime* squarely holds that EPA is not allowed to make a "no control" determination for a pollutant emitted by a listed source category.<sup>63</sup>

Against this background, the import of § 112(d)(4) is clear. The provision gives EPA authority to "consider" a HAP's established health threshold in setting emission standards under the Act.<sup>64</sup> In other words, if there is a known "threshold" level below which the HAP causes no adverse health effects, EPA may set a category- or subcategory-wide control standard at a level more or less stringent than the MACT provisions would otherwise require.

Section 112(d)(4) does not, however, allow EPA to make facility-by-facility exemptions from otherwise-applicable MACT standards. The section provides, "[w]ith respect to pollutants for which a health threshold has been established, the Administrator

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<sup>61</sup> 42 U.S.C. § 7412(c)(2).

<sup>62</sup> *Id.* § 7412(d)(1).

<sup>63</sup> *National Lime*, 233 F.3d at 633-34.

<sup>64</sup> 42 U.S.C. § 7412(d)(4).

may consider such threshold level, with an ample margin of safety, when establishing emissions standards under this subsection.”<sup>65</sup> The words “under this subsection” require EPA to apply any § 112(d)(4)-influenced standard to entire categories or subcategories of sources, because subsection (d) includes no mention of individualized exemptions or individualized standard-setting and therefore must be read to require the regulation of HAP emissions on a category-wide basis. Moreover, § 112(d)(4) is only available when the Agency is “*establishing*”—not *applying*—emissions standards.<sup>66</sup>

This interpretation of the statute’s plain meaning is confirmed by the fact that the only time § 112 mentions individualized standard-setting is under the so-called “MACT hammer” provisions of § 112(j). In the event that EPA misses a statutory deadline to establish emissions standards for a category or subcategory of sources, § 112(j) directs the States to set MACT standards for each facility via Title V permitting programs.<sup>67</sup> The language of § 112(j), which directs “the owner or operator of *any major source*” to submit a Title V permit application in this circumstance,<sup>68</sup> indicates that Congress knew how to regulate on a source-by-source basis; had legislators wished to create a similar, source-by-source regulatory regime for threshold HAP emissions from listed sources, therefore, one can only presume they would have included similar language in § 112(d)(4). Instead, § 112(d)(4) clearly mandates that EPA promulgate category-wide, MACT-based emissions standards for all sources in a listed category or sub-category.<sup>69</sup>

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<sup>65</sup> *Id.*

<sup>66</sup> *Id.* (emphasis added).

<sup>67</sup> *Id.* § 7412(j)(2)-(5).

<sup>68</sup> *Id.* § 7412(j)(2) (emphasis added).

<sup>69</sup> *Id.* § 7412(d)(4); *see also id.* § 7412(c)(2) (“For the categories and subcategories the Administrator lists, the Administrator shall establish emissions standards under subsection (d), according to the schedule in this subsection and subsection (e).”).

The only alternatives to this requirement are (1) to delist an entire category of facilities via section 112(c)(9),<sup>70</sup> or (2) to delist a specific chemical under subsection (b)(3).<sup>71</sup>

**ii. Congress did not intend to permit EPA to exempt facilities simply because they emit threshold HAPs.**

In creating individualized, risk-based exemptions for facilities that emit HCl and Mn, EPA invokes an authority that Congress expressly declined to grant the Agency. Indeed, as discussed below, both Houses of Congress considered source-by-source risk-based exemptions for threshold HAPs, but both chose not to adopt such exemptions.

Emissions standards under § 112 apply to “major sources,” and the Act specifies that a source is “major” if it emits in excess of 10 tons per year of a given HAP.<sup>72</sup> A prior version of the bill, however, would have allowed EPA to decline to regulate sources that emit greater quantities of threshold pollutants.<sup>73</sup> As the Senate report describing the provision explained:

[U]nder section 112(c)(5) the Administrator may set a lower boundary for the category of major sources which is higher than 10 tons per year (but which provides an ample margin of safety to protect public health). If there are no sources emitting the pollutant in that amount in a particular category, then no regulation under section 112(d) need be promulgated.<sup>74</sup>

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<sup>70</sup> *Id.* § 7412(c)(9).

<sup>71</sup> *Id.* § 7412(b)(3).

<sup>72</sup> *Id.* § 7412(a)(1).

<sup>73</sup> See S. Rep. No. 101-228, at 519 (1989), *reprinted in* V A LEGISLATIVE HISTORY OF THE CLEAN AIR ACT AMENDMENTS OF 1990, at 8338, 8859 (Comm. Print 1993) (hereinafter “LEGISLATIVE HISTORY”) (noting that the Senate’s proposed version of § 112 would have permitted EPA to “establish a minimum emissions rate of more than ten tons for a category or subcategory and a pollutant for which a health effects threshold can be established, provided that, the minimum emissions rate assures, with an ample margin of safety, such threshold will not be exceeded within the vicinity of the sources in the category and that no additional adverse environmental effects will occur as the result of emissions from the sources individually or in combination with emissions from other similar sources”).

<sup>74</sup> S. Rep. No. 101-228, at 176, *reprinted in* V LEGISLATIVE HISTORY, at 8516.

The fact that such a provision did not become law indicates that the current CAA does not permit EPA to avoid regulating facilities by pointing to evidence of a health threshold.

Moreover, EPA's current interpretation of § 112 (d)(4) directly parallels another idea advanced and rejected during the debate over the 1990 Amendments to the CAA (CAAA). The House bill would have allowed an individual facility to escape MACT if a risk analysis showed that the source posed a negligible hazard. Specifically, the bill would have allowed States to permit "a major source to comply with alternative emission limitations in lieu of standards under this section, if the owner or operator presents sufficient evidence to demonstrate that emissions from the source in compliance with such limitations present a negligible risk to public health under criteria issued by the Administrator."<sup>75</sup> This proposal was not in the Senate bill, however, and again the conference rejected the idea in the final legislation.<sup>76</sup>

Finally, the conference report on the 1990 CAAA states, "[i]t is the conferees' intent that EPA not use the [§ 112(j)] permit hammer approach (case-by-case) to avoid or delay meeting MACT requirements."<sup>77</sup> In other words, Congress expressed its desire for a category-based approach to MACT standard-setting rather than a time-consuming and delay-inducing source-by-source approach.

**c. EPA's authority under § 112(d)(4) does not extend to HCl and Mn.**

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<sup>75</sup> H.R. 3030, 101st Cong. § 112(g)(1)(A), *reprinted in* II LEGISLATIVE HISTORY, at 3939.

<sup>76</sup> *See* Senate Debate on the Clean Air Act Amendments of 1990 Conference Report (hereinafter "Senate Debate"), *reprinted in* I LEGISLATIVE HISTORY, at 866 (Statement of Senator Durenberger) ("The authority for such exemptions was not present in the Senate bill, and the House receded to the Senate on this point. The provision was deleted in conference.").

<sup>77</sup> Clean Air Act Amendments of 1990 Conference Report, at 340 (hereinafter "Conference Report"), *reprinted in* I LEGISLATIVE HISTORY, at 1790.

**i. Section 112(d)(4) applies only to HAPs for which a health threshold has been established.**

Whatever the legality of invoking CAA § 112(d)(4) to support adoption of individualized risk-based exemptions from otherwise applicable MACT standards, the plain language of that section limits its applicability to HAPs for which a “health threshold has been established.”<sup>78</sup> Three aspects of this phrase are noteworthy. First, the word “threshold” requires that EPA have direct evidence that the HAP in question has no health effects below an identified, non-zero level.<sup>79</sup> This requirement, in turn, precludes the extension of § 112(d)(4) authority to carcinogens, which are presumed to have no such level. Indeed, the Senate CAAA report made precisely this point, noting that invoking § 112(d)(4) is appropriate only when “the pollutant presents no risk of other adverse health effects, including cancer, *for which no threshold can be established. . . .*”<sup>80</sup> Recognizing this Congressional intent, EPA traditionally has interpreted § 112(d)(4) to exclude consideration of carcinogens.<sup>81</sup>

Second, the phrase “has been” demonstrates that Congress intended for EPA to use its § 112(d)(4) authority only when a pollutant’s health threshold is *already* accepted in the scientific community. That is, Congress did not intend for EPA to spend time and resources seeking such a threshold. This reading is bolstered by the fact that one draft of

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<sup>78</sup> 42 U.S.C. § 7412(d)(4).

<sup>79</sup> The Senate report on the CAAA states that the section allows EPA to use the “no observable effects level” (NOEL). S. Rep. No. 101-228, at 171, *reprinted in* V LEGISLATIVE HISTORY, at 8511.

<sup>80</sup> S. Rep. No. 101-228, at 171, *reprinted in* V LEGISLATIVE HISTORY, at 8511 (emphasis added); *see also* Senate Debate, *reprinted in* I LEGISLATIVE HISTORY, at 876 (Statement of Senator Durenberger) (“With respect to pollutants for which a safe threshold can be set, the authority to set a standard less stringent than the maximum achievable control technology is contained in subsection (d)(4). With respect to carcinogens and other non-threshold pollutants, *no such authority exists in subsection (d) or any other provision of the Act.*” (emphasis added)).

<sup>81</sup> *See, e.g.*, National Emission Standard for Hazardous Air Pollutants, Proposed Standards for Hazardous Air Pollutants From Chemical Recovery Combustion Sources at Kraft, Soda, Sulfite, and Stand-alone Semicemical Pulp Mills, 63 Fed. Reg. 18,754, 18, 765 (proposed Apr. 15, 1998) (to be codified at 40 C.F.R. pt. 63) (noting that EPA has not applied section 112(d)(4) to carcinogens because Congress “clearly intended them to be nonthreshold pollutants”).

the CAAA—later rejected—would have made the § 112(d)(4) authority contingent only on a finding that a threshold “*can be established*.”<sup>82</sup>

Third, Congress’s use of the word “established”—rather than, for example, “estimated” or “approximated”—indicates that EPA must have a high degree of scientific certainty before using its § 112(d)(4) authority.<sup>83</sup> Again, the CAAA legislative history supports this interpretation; even the Senate, whose bill would have allowed EPA to invoke section (d)(4) when a threshold “can be established,” did not intend for the Agency to take less-than-definitive evidence of a threshold into account in setting emissions standards:

*[T]hat would jeopardize the standard-setting schedule imposed under this section with the kind of lengthy study and debate that has crippled the current program. But where health thresholds are well-established, ...and the pollutant presents no risk of other adverse health effects, including cancer, for which no threshold can be established, the Administrator may use the threshold with an ample margin of safety (and not considering cost) to set emissions limitations for sources in the category or subcategory.*<sup>84</sup>

Overall, then, EPA may not rely on § 112(d)(4) to support risk-based exemptions for known or potential carcinogens. It may not invoke the section unless evidence of a no-effects threshold for a pollutant already exists in the scientific literature. And it may not speculate from inconclusive evidence; it must be *certain* that exposure to the pollutant at the identified “threshold” level has *no* deleterious health effects.

**ii. No health threshold has been established for HCl.**

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<sup>82</sup> S. 1630, 101st Cong. § 112(d)(4)(A), *reprinted in* III LEGISLATIVE HISTORY, at 4425 (emphasis added).

<sup>83</sup> The most relevant dictionary definition of “established” is “to put beyond doubt; prove.” WEBSTER’S NEW COLLEGIATE DICTIONARY 388 (1980).

<sup>84</sup> S. Rep. No. 101-228, at 171, *reprinted in* V LEGISLATIVE HISTORY, at 8511 (emphasis added).

These three considerations squarely preclude establishment of a §112(d)(4)-based exemption for HCl. To begin with, it is possible that HCl is carcinogenic. In its Integrated Risk Information System (IRIS) database, EPA states that HCl “has not undergone a complete evaluation and determination ... for evidence of human carcinogenic potential.”<sup>85</sup> Elsewhere, the Agency states that “no information” exists on HCl carcinogenicity in humans.<sup>86</sup> Further, the International Agency for Research on Cancer (IARC) identifies several human and animal studies that suggest HCl may have carcinogenic effects:

One US study of steel-pickling workers showed an excess risk for cancer of the lung in workers exposed primarily to hydrochloric acid. An increased risk for laryngeal cancer was observed in the same cohort; however, no analysis was performed of workers exposed to hydrochloric acid. None of three US industry-based case-control studies suggested an association between exposure to hydrogen chloride and cancers of the lung, brain or kidney. In one Canadian population-based case-control study, an increased risk for oat-cell carcinoma was suggested in workers exposed to hydrochloric acid; however, no excess risk was observed for other histological types of lung cancer. ...

In one lifetime study in male rats exposed by inhalation at one dose level, hydrogen chloride did not produce a treatment-related increase in the incidence of tumours. Hydrogen chloride was tested at one dose level in combination with formaldehyde by inhalation exposure in the same long-term experiment in male rats. Hydrogen chloride did not influence the nasal carcinogenicity of formaldehyde when mixed with it upon entry into the inhalation chamber. When the two compounds were premixed before entry into the inhalation chamber, an increased incidence of nasal tumours was observed over that seen in animals treated with the combination mixed on entry or with formaldehyde alone.<sup>87</sup>

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<sup>85</sup> U.S. EPA, *Integrated Risk Information System: Hydrogen Chloride*, <http://www.epa.gov/iris/subst/0396.htm>.

<sup>86</sup> U.S. EPA, *Technology Transfer Network Air Toxics Website: Hydrochloric Acid (Hydrogen Chloride)*, <http://www.epa.gov/ttnatw01/hlthef/hydrochl.html>.

<sup>87</sup> International Agency for Research on Cancer, *Hydrochloric Acid, Summary of Data Reported and Evaluation*, <http://www-cie.iarc.fr/htdocs/monographs/vol54/03-hydrochloric-acid.htm>.

From these studies, IARC concludes only that “[t]here is *inadequate evidence* for the carcinogenicity in humans of hydrochloric acid,”<sup>88</sup> but these studies and the absence of further data are patently insufficient for EPA simply to assume HCl is *not* carcinogenic.

A further flaw in the Agency’s decision to treat HCl as a threshold pollutant concerns its conclusion that the HCl reference concentration (RfC, or level at which no adverse health effects are expected<sup>89</sup>) is 0.02 mg/m<sup>3</sup> (0.0134 ppm<sup>90</sup>).<sup>91</sup> EPA selects this RfC value based on rat studies that demonstrated hyperplasia of the nasal mucosa (the protective cell lining of the nasal tract and cavities), larynx, and trachea in response to HCl exposure.<sup>92</sup> But these rat studies only investigated effects on respiratory tract organs; the Agency identifies *no* studies that indicate whether exposure to HCl—at 0.02 mg/m<sup>3</sup> or any other concentration—harms other bodily systems. In addition, the studies failed to identify a no-observed-effects-level (NOEL). As a result, the RfC in the final ICI boiler and process heater rule is based on the lowest-observed-adverse-effects-level (LOAEL)—that is, the lowest dose to which study rats were exposed, and at which measurable adverse health effects occurred in treated animals.<sup>93</sup>

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<sup>88</sup> *Id.* (emphasis in original).

<sup>89</sup> Specifically, the RfC is an estimate (with uncertainty spanning perhaps an order of magnitude) of a continuous, lifetime inhalation exposure that is unlikely to pose significant risks of deleterious noncancer effects in human subjects (including sensitive subgroups).

<sup>90</sup> To convert concentrations in air (at 25 °C) from ppm to mg/m<sup>3</sup>: mg/m<sup>3</sup> = (ppm) x (molecular weight of the compound)/24.45. For hydrochloric acid: 1ppm = 1.49 mg/m<sup>3</sup>.

<sup>91</sup> 69 Fed. Reg. at 55,283, Appendix A § 6(a)(1) (referring facilities to EPA’s Technology Transfer Network Air Toxic Website for an RfC for HCl).

<sup>92</sup> R. E. Albert, *et al.*, Gaseous formaldehyde and hydrogen chloride induction of nasal cancer in rats. 68 J. Natl. Cancer Inst. 597-603 (1982).

<sup>93</sup> The Albert, *et al.* study (discussed in detail by A.R. Sellakumar, *et al.*, Carcinogenicity of formaldehyde and hydrogen chloride in rats. 81 Toxicol. Appl. Pharmacol. 401-406 (1985)) reported data from a chronic inhalation exposure study in rats. One hundred male Sprague-Dawley rats were exposed to 10 ppm hydrogen chloride for 6 hours/day, 5 days/week (duration-adjusted concentration = 2.5 mg/m<sup>3</sup>) for their lifetimes. Only the organs of the respiratory tract were subjected to detailed histological analysis. Even at this lowest dose, there was a 24% incidence of hyperplasia of laryngeal-tracheal segments in HCl-exposed rats (larynx 2/22, trachea 6/26) versus 6% in the controls.

It is highly likely that at doses below those in the study, there are alterations in normal physiological and biological functions in exposed animals, and consequent adverse health effects. Further, it is reasonable to presume that organs other than those associated with the nasal and respiratory tracts are vulnerable to damage or destruction through acute or long-term HCl inhalation. After all, clinical symptoms of HCl toxicity in humans include gastritis, dermatitis, and adverse reproductive outcomes.

**iii. No health threshold has been established for Mn.**

EPA's decision to treat Mn as a threshold pollutant is equally ill-founded.<sup>94</sup> For one thing, Mn, like HCl, may have carcinogenic effects. On this subject, EPA's IRIS database indicates that "[e]xisting studies are inadequate to assess the carcinogenicity of manganese,"<sup>95</sup> but the database also identifies two mouse studies in which exposure to Mn compounds induced lung<sup>96</sup> and lymph<sup>97</sup> tumors, respectively. Moreover, EPA concedes that the results of the former study "are suggestive of carcinogenicity."<sup>98</sup> Studies by the National Toxicology Program at the National Institute of Environmental Health Sciences (NTP) provide further evidence of Mn's potential carcinogenicity. NTP performed toxicology and carcinogenesis studies on rats and mice, finding that adding manganese (II) sulfate monohydrate to the animals' feed marginally increased incidences of thyroid gland follicular cell adenoma and significantly increased incidences of

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<sup>94</sup> The flaws in the Mn exemption are particularly worthy of reconsideration, as EPA's proposed ICI boiler and process heater rule provided absolutely no notice that the Agency was considering Mn as a possible subject of a risk-based exemption under § 112(d)(4).

<sup>95</sup> U.S. EPA, *Integrated Risk Information System: Manganese*, <http://www.epa.gov/iris/subst/0373.htm>.

<sup>96</sup> G.D. Stoner, *et al.*, Test for carcinogenicity of metallic compounds by the pulmonary tumor response in strain A mice. 36 *Cancer Res.* 1744-1747 (1976).

<sup>97</sup> J.A. DiPaolo, The potentiation of lymphosarcomas in mice by manganous chloride. 23 *Fed. Proc.* 393 (1964) (abstract).

<sup>98</sup> U.S. EPA, *Integrated Risk Information System: Manganese*, <http://www.epa.gov/iris/subst/0373.htm>.

follicular cell hyperplasia.<sup>99</sup> Clearly, then, it is arbitrary—and hence unlawful—for the Agency to assume that Mn is *noncarcinogenic*—as it must to treat Mn as a threshold pollutant to which CAA § 112(d)(4) may be applicable.

In addition, as for HCl, the Agency's studies of the inhalation effects of Mn (on which the Mn RfC is based) identify only a LOAEL, not a NOEL.<sup>100</sup> Again, this strongly suggests that physiological and biological impairments occur at Mn doses below those tested in the studies. Moreover, according to EPA's database, the two studies in question involved *men* exposed to Mn compounds *in their workplace*.<sup>101</sup> That is, the Agency only considered presumptively healthy, adult men's exposure to Mn compounds—an egregious flaw given that Mn is a well-established, potent developmental neurotoxicant, known to be most damaging to the central nervous systems of fetuses, infants, and young children.<sup>102</sup>

Finally, the rule indicates that in treating Mn as a threshold pollutant, the Agency considered only the health effects of chronic exposure, ignoring "potential acute effects" because "[a] screening assessment ... for [those] effects" showed "no exceedances."<sup>103</sup>

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<sup>99</sup> National Toxicology Program, National Institute of Environmental Health Sciences, *Study Abstract for Manganese Sulfate Monohydrate*, [http://ntp-apps.niehs.nih.gov/ntp\\_tox/index.cfm?fuseaction=abstracts.abstract&nextcircuit=longtermbioassaydata&study\\_no=C61143B&abstract\\_url=http%3A%2F%2Fntp%2Dserver%2Eniehs%2Enih%2Egov%2Fhtdocs%2FLT%2DStudies%2FTR428%2Ehtml&test\\_type=Long-Term&study\\_length=2%20Years&cas\\_no=10034%2D96%2D5&chemical\\_name=Manganese%20Sulfate%20Monohydrate](http://ntp-apps.niehs.nih.gov/ntp_tox/index.cfm?fuseaction=abstracts.abstract&nextcircuit=longtermbioassaydata&study_no=C61143B&abstract_url=http%3A%2F%2Fntp%2Dserver%2Eniehs%2Enih%2Egov%2Fhtdocs%2FLT%2DStudies%2FTR428%2Ehtml&test_type=Long-Term&study_length=2%20Years&cas_no=10034%2D96%2D5&chemical_name=Manganese%20Sulfate%20Monohydrate).

<sup>100</sup> U.S. EPA, *Integrated Risk Information System: Manganese*, <http://www.epa.gov/iris/subst/0373.htm>.

<sup>101</sup> *Id.* (describing H. Roels, *et al.*, Epidemiological survey among workers exposed to manganese: Effects on lung, central nervous system, and some biological indices. 11 *Am. J. Ind. Med.* 307-327 (1987), and H. Roels, *et al.*, Assessment of the permissible exposure level to manganese in workers exposed to manganese dioxide dust. 49 *Br. J. Ind. Med.* 25-34 (1992).

<sup>102</sup> *See, e.g.*, L. Takser L., *et al.*, Manganese, monoamine metabolite levels at birth, and child psychomotor development. 24 *Neurotoxicology* 667-74 (2003) (describing a prospective epidemiological study in 247 healthy pregnant women and their babies to determine the long-term effect of *in utero* exposure to environmental low-levels of Mn, and reporting evidence of impaired psychomotor development by age six). *See also* L. Normandin, *et al.*, Manganese distribution in the brain and neurobehavioral changes following inhalation exposure of rats to three chemical forms of manganese. 25 *Neurotoxicology* 433-41 (2004).

<sup>103</sup> 69 Fed. Reg. at 55,220.

Amazingly, however, the cited screening assessment appears nowhere in the docket for the final rule. Moreover, a memorandum describing that screening assessment, which does appear in the docket,<sup>104</sup> indicates that the assessment relied on “[a]cute ... toxicity dose-response values ... taken from the EPA Air Toxics website (<http://www.epa.gov/ttn/atw/toxsource/summary.html>)”<sup>105</sup>—even though that website identifies no acute toxicity dose-response value for Mn.<sup>106</sup> That is, EPA appears arbitrarily to have concluded that Mn emissions from regulated facilities never exceed the level at which acute effects may occur *even though the Agency has no data indicating what that level might be.*<sup>107</sup>

**d. The final rule makes no attempt to account for background levels and alternative sources of HCl and Mn.**

A further problem with the ICI boiler and process heater rule’s risk-based exemptions is the Agency’s failure to account for either background levels or alternative sources of HCl and Mn. The final rule permits an individual facility to demonstrate that it qualifies for the risk-based exemption for HCl or Mn simply by submitting data showing that emissions from the facility do not exceed the RfC for that HAP, whether or not there are other, co-located sources of the HAP or other pathways of exposure.<sup>108</sup> As a consequence, a facility with both an ICI boiler or process heater and other HCl or Mn-

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<sup>104</sup> Memorandum from Scott Jenkins, Risk and Exposure Assessment Group, to Dave Guinnup, Leader, Risk and Exposure Assessment Group, “Screening Assessment of Central Nervous System Hazardous Air Pollutants from Wood-Fired Industrial Boilers” (February 25, 2004), OAR-2002-0058-0608.

<sup>105</sup> *Id.* at 1.

<sup>106</sup> U.S. EPA, *Acute Dose-Response Values*, <http://www.epa.gov/ttn/atw/toxsource/table2.pdf> (listing acute exposure guideline levels (AEGs) for various air toxics, but leaving *blank* the AEGs corresponding to “Manganese compounds”).

<sup>107</sup> The table does include one value for Mn—the “IDLH” level, or level at which the compound is immediate dangerous to life or health. Relying on this value to determine when and whether emissions from regulated facilities might cause acute health effects is completely inappropriate, as the IDLH level indicates only the concentration at which Mn would be deadly or irreversibly dangerous to health, not the concentration at which lesser (but still measurable and adverse) acute effects would be observed.

<sup>108</sup> 69 Fed. Reg. at 55,283, 55,285, Appendix A §§ 7(a)(b), 13.

emitting units, or a facility located in an industrial park near other similar facilities, or a facility located in an area with high background concentrations of either HAP, could qualify for the HCl or Mn risk-based exemption yet still pose a significant risk to people living or working nearby.

This dubious approach differs from that advanced in the proposed rule.<sup>109</sup> In the proposal, EPA made clear that any credible assessment of the risks posed by a regulated facility must include background pollution and emissions from co-located sources. The proposal's discussion of this issue proceeded in three steps. First, the Agency explained that it would use the concept of a hazard index (HI) or hazard quotient (HQ) to quantify the risks from regulated plants.<sup>110</sup> (As defined in the final rule, an HI is the sum of individual HQs "for multiple substances and/or multiple exposure pathways," while an HQ is "the ratio of the predicted media concentration of a pollutant to the media concentration at which no adverse effects are expected."<sup>111</sup>) Second, EPA sought comment on a range of HI (or HQ) values that, if exceeded at any particular plant, would indicate unacceptably high emissions of one or more HAPs. Third, the Agency observed that simply ensuring that HAP emissions from an individual facility result in an HI less than or equal to 1.0—that is, ensuring that emissions from the facility do not exceed the threshold concentration for the relevant pollutant but ignoring other sources of exposure—inevitably underprotects. Specifically, the Agency stated:

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<sup>109</sup> Because EPA's final approach differs from that championed in the notice of proposed rulemaking, the grounds for our objection arose after the period for public comment had ended. The objection is thus appropriately raised in this petition. See 42 U.S.C. § 7607(d)(7)(B). Moreover, the objection is "of central relevance to the outcome of the rule," *id.*, because it demonstrates that the exemptions contravene the CAA and are arbitrary and capricious.

<sup>110</sup> 68 Fed. Reg. at 1689-1691.

<sup>111</sup> 69 Fed. Reg. at 55,285, Appendix A § 13. For inhalation exposures, the rule goes on to note, "the HQ is calculated as the air concentration divided by the Rfc." *Id.*

One option is to allow the hazard index posed by all threshold HAP emitted from sources at the facility to be no greater than one. This approach is protective if no additional threshold HAP exposures would be anticipated from other sources in the vicinity of the facility or through other routes of exposure (e.g., through ingestion). . . . Because noncancer risk assessment is predicated on total exposure or dose, and because risk assessments focus only on an individual source, establishing a hazardous index limit of 0.2 would account for an assumption that 20 percent of an individual's total exposure is from that individual source. . . . *If the facility is allowed to emit HAP such that its own impacts could result in HI values of one, total exposures to threshold HAP in the vicinity of the facility could be substantially greater than one due to background sources, and this would not be protective of public health, since only HI values below one are considered to be without appreciable risk of adverse health effects.*<sup>112</sup>

Thus, at the proposal stage, EPA apparently concluded that an HI limit of 1.0 could only protect public health "with an ample margin of safety" (a protective cushion required by § 112(d)(4)<sup>113</sup>) in the absence of other sources of the HAP in question.

This conclusion is unsurprising. Indeed, any other conclusion would be untenable. The lungs do not distinguish between pollution from boilers and similar pollution from other plants or mobile sources. If the ambient concentration of a particular pollutant is at or near the safe level, therefore, an additional source of the pollutant can push the exposure over the threshold *even if the additional source emits the pollutant at low levels*. And similarly, if the source is emitting the pollutant at levels close to the RfC, even low background pollution could lead to unsafe overall conditions.

To determine whether an HI (or HQ) of 1.0 for HCl or Mn emissions from an ICI boiler or process heater is insufficiently protective, therefore, one need only ask whether "additional [HCl or Mn] exposures would be anticipated from other sources in the vicinity of the facility or through other routes of exposure."<sup>114</sup> The answer to both questions is clearly yes. With respect to HCl, EPA elsewhere identified a study—

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<sup>112</sup> 68 Fed. Reg. at 1691 (emphasis added).

<sup>113</sup> 42 U.S.C. § 7412(d)(4).

<sup>114</sup> 68 Fed. Reg. at 1691.

performed by a different regulated industry, lime manufacturing plants—that demonstrated that “the mean national HCl concentration correspond[s] to an HQ of 0.06 and the 95<sup>th</sup> percentile national HCl concentration correspond[s] to an HQ of 0.2.”<sup>115</sup> With respect to Mn, the National Library of Medicine’s Toxmap<sup>116</sup> indicates that in 2002, (1) nationwide, over 1,000 facilities reported on-site Mn releases, and (2) within a 50-mile radius of most major urban centers, there were multiple (and often many) such releases.<sup>117</sup> Despite these alternative sources of HCl and Mn, however, EPA’s final ICI boiler and process heater rule settles on an HI (or HQ) limit of 1.0,<sup>118</sup> thus failing to ensure—on the Agency’s own terms—that sources are truly “without appreciable risk of adverse health effects.”<sup>119</sup> The rule therefore violates the CAA and is arbitrary and capricious.

**e. EPA may not simultaneously adopt a risk-based exemption for HCl emissions and use HCl as a proxy for other *unidentified* HAPs.**

A further flaw in the risk-based exemptions concerns the Agency’s simultaneous creation of an exemption for HCl emissions and adoption of HCl as a surrogate for other non-metallic inorganic HAPs. The obvious and entirely unlawful consequence of this maneuvering is that large, solid-fuel facilities whose HCl emissions fall below the Agency’s identified risk-based standard are permitted to evade the MACT standards for

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<sup>115</sup> Proposed Rules, National Emission Standard for Hazardous Air Pollutants for Lime Manufacturing Plants, 67 Fed. Reg. 78,046, 78,056 (proposed Dec. 20, 2002) (to be codified at 40 C.F.R. pt. 63).

<sup>116</sup> National Library of Medicine, National Institutes of Health, *Toxmap – Environmental Health E-Maps*, <http://toxmap.nlm.nih.gov/toxmap/main/index.jsp>.

<sup>117</sup> For example, Toxmap indicates that there were over 30 such releases within a 50-mile radius of Chicago, about 15 within a similar distance of Dallas, over 10 for Los Angeles, about 40 for Milwaukee, and almost 20 for Philadelphia. *Id.*, *Toxmap – Environmental Health E-Maps, MANGANESE (7439-96-5)*, <http://toxmap.nlm.nih.gov/toxmap/releases/searchChemical.do>.

<sup>118</sup> 69 Fed. Reg. 55,283, Appendix A § 7(a), (b).

<sup>119</sup> 68 Fed. Reg. at 1691.

*HCl and in turn to avoid adopting controls for other non-metallic inorganic HAP.*

Adding insult to injury, the Agency fails even to identify which non-metallic inorganic HAPs may elude regulation in this way, let alone to explain its apparent certainty that all such HAPs are “pollutants for which a health threshold has been established,”<sup>120</sup> such that they may be eligible for consideration under § 112(d)(4). Instead, EPA says only that the “available ... emissions test information ... indicate[] that the primary inorganic HAP emitted from boilers and process heaters is HCl,”<sup>121</sup> that “[m]uch smaller amounts of hydrogen fluoride and chlorine are emitted,”<sup>122</sup> and that the Agency “do[es] not expect hydrogen cyanide emissions from boilers covered under the final rule.”<sup>123</sup>

Even if one accepts these unsubstantiated and self-serving assertions as true, their direct and necessary implication is that facilities that qualify for the *HCl* exemption need not control their *hydrogen fluoride* (HF) emissions either. As discussed above, however, whatever the general lawfulness of § 112(d)(4)-based exemptions, EPA may not adopt such exemptions for pollutants whose health thresholds have not been established.<sup>124</sup> Yet HF falls squarely in this category. Although EPA does not consider the chemical in its IRIS database,<sup>125</sup> the database does include information about fluorine, to which HF rapidly breaks down. According to that information, no data are available to determine an RfC for chronic inhalation exposure to fluorine, nor has fluorine “undergone a complete evaluation and determination ... for evidence of human carcinogenic potential.”<sup>126</sup> Moreover, EPA elsewhere acknowledges data suggesting that those with

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<sup>120</sup> 42 U.S.C. § 7412(d)(4).

<sup>121</sup> 69 Fed. Reg. at 55,230.

<sup>122</sup> *Id.*

<sup>123</sup> *Id.* at 55,244.

<sup>124</sup> *See supra* at pp. 20-21.

<sup>125</sup> *See* U.S. EPA, *Integrated Risk Information System*, <http://www.epa.gov/iris>.

<sup>126</sup> U.S. EPA, *Integrated Risk Information System: Fluorine*, <http://www.epa.gov/iris/subst/0053.htm>.

occupational exposure to HF have greater than normal occurrences of cancer.<sup>127</sup> Because EPA has not established that HF is noncarcinogenic, it may not consider HF a threshold pollutant. Further, even if an RfC for HF were established, EPA offers no justification for its apparent assumption that plants whose emissions meet the RfC for HCl will necessarily also meet the RfC for HF. For this reason alone, EPA's rule contravenes the CAA and is arbitrary and capricious.

Far worse than the fact that some facilities' HF emissions may go uncontrolled, however, is the fact that EPA also allows facilities that qualify for the HCl exemption to ignore emissions of all other inorganic non-metallic HAPs, some of which may not even be identified. The Agency itself concedes that it has "limited emissions information for ... inorganic HAP[s]" other than HCl and metals,<sup>128</sup> yet it identifies only HCl, HF, and chlorine as inorganic, non-metals likely to be emitted from large, solid-fuel boilers—an oversimplification at best naïve and at worst disingenuous given the exhaustive list of fuel types burned by such facilities (including "coal, wood, biomass, tires, plastics, and other nonfossil solid materials"<sup>129</sup>). Moreover, EPA expressly discounts hydrogen cyanide emissions without offering any support for the claim that regulated boilers are unlikely to emit this toxin. Without a thorough study of emissions from large, solid-fuel boilers, EPA cannot reasonably adopt a risk-based HCl exemption that effectively exempts *all* inorganic non-metallic HAPs—whatever their individual toxicities and carcinogenicities—from MACT compliance. For these additional reasons, the HCl exemption violates the Act and is arbitrary and capricious.

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<sup>127</sup> U.S. EPA, *Technology Transfer Network Air Toxics Website: Hydrogen Fluoride*, <http://www.epa.gov/ttn/atw/hlthef/hydrogen.html>.

<sup>128</sup> 69 Fed. Reg. at 55,230.

<sup>129</sup> *Id.* at 55,269.

**f. The Mn exemption effectively permits sources with relatively low Mn emissions to avoid controlling emissions of any other non-mercury metals.**

The Mn exemption is just as flawed as the HCl exemption, although EPA has gone out of its way to conceal the flaw. Because EPA does not expressly use Mn as a surrogate for any other HAPs, the Mn exemption's only direct effect is to permit facilities to avoid their control obligations for Mn. In practice, however, the exemption also enables facilities to avoid controlling emissions of other, non-mercury metals.

To see this, one must first understand both how the ICI boiler and process heater rule regulates emissions of non-mercury metals and how the Mn exemption operates. The rule first identifies eight non-mercury metallic HAPs: arsenic, beryllium, cadmium, chromium, lead, manganese, nickel, and selenium. The rule then adopts particulate matter (PM) as a surrogate for these HAPs, because “[m]ost, if not all, non-mercury metallic HAP emitted from combustion sources will appear on the flue gas fly-ash,” so “the same control techniques that would be used to control the fly-ash PM will control non-mercury metallic HAP.”<sup>130</sup> Because “some sources burn fuels containing very little metals, but would have sufficient PM emissions to require control under the PM provisions of the proposed rule,” however, the final rule also includes “an alternative [total selected metals (TSM)] limit. ... A source may choose to comply with the alternative [TSM] emissions limit instead of the PM limit to meet the final rule.”<sup>131</sup>

The Mn exemption operates against this background. Sources must first submit data establishing to EPA's satisfaction that (1) their Mn emissions fall below certain listed levels, or (2) the maximum predicted concentration of Mn at their site falls below

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<sup>130</sup> *Id.* at 55,223.

<sup>131</sup> *Id.*

the RfC for Mn.<sup>132</sup> Sources able to meet one of these requirements may then exclude their Mn emissions from their calculations when they seek to establish compliance with the otherwise-applicable MACT standard for non-mercury metallic HAPs. For sources that choose to comply with the PM standard, this deduction is irrelevant. Sources that choose to comply with the TSM standard, however, receive a windfall: They are permitted to show that their emissions of *seven* non-mercury metals (arsenic, beryllium, cadmium, chromium, lead, nickel, and selenium) fall below the standard EPA adopted for *eight* such metals. This is particularly problematic for facilities whose Mn emissions are high relative to their emissions of other non-mercury metals—to instruct such facilities to total only their emissions of the seven non-mercury *non-Mn* metals in determining their non-mercury metallic HAP emissions is like instructing banks to ignore all \$20 bills in determining the contents of their ATM machines. Provided such facilities can comply with the Mn exemption, their emissions of the remaining seven metals will almost inevitably fall below the TSM standard, and they will therefore be able to avoid taking any steps to control those emissions (even though the Agency nowhere asserts, let alone establishes, that the remaining seven metals are “threshold pollutants” to which § 112(d)(4) could even arguably apply). Indeed, EPA effectively concedes this point at various places in the final rule, when it labels the Mn exemption a “TSM compliance alternative,”<sup>133</sup> and observes that almost 400 biomass-fired boilers “could be potentially eligible” for this alternative.<sup>134</sup>

This flaw in the Mn exemption is not only illogical but unlawful. As noted elsewhere, the CAA requires EPA to adopt emissions controls comparable to those

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<sup>132</sup> See *id.* at 55,283, Appendix A § 5(d).

<sup>133</sup> E.g., *id.* at 55,227, 55,244 (emphasis added); *id.* at 55,283, Appendix A § 6(b) (emphasis added).

<sup>134</sup> *Id.* at 55,244.

achieved by the best performing similar sources. To comply with this requirement (even assuming the lawfulness of the Mn exemption itself, which we do not concede) EPA should have adopted *two* TSM standards: one for facilities summing emissions of all eight non-mercury metallic HAPs, and one for facilities excluding their Mn emissions. Instead, EPA permits facilities that comply with the Mn exemption to compare apples and oranges; they are permitted to show *not* that their emissions of the seven remaining non-mercury metallic HAPs are comparable to the same set of emissions from the best performing plants, but instead that their emissions of those seven HAPs are comparable to the best performing plants' emissions of those HAPs *plus Mn*. This result violates the express requirements of the CAA and is arbitrary and capricious.

**g. The described procedures for demonstrating compliance with the § 112(d)(4) risk-based exemptions are significantly flawed.**

Appendix A to the final rule outlines two methods by which sources can demonstrate compliance with the HCl and Mn exemptions, both of which are flawed. First, a facility may conduct emissions tests at “appropriate emission point[s]”<sup>135</sup> under “worst-case operating conditions,”<sup>136</sup> calculate the HCL-equivalent or Mn emissions rate for each emission point, and establish that the calculated rate falls below the appropriate value in the Agency’s look-up tables. Second, a source that fails to comply with this “look-up table approach”<sup>137</sup> may “perform a site-specific compliance demonstration” and submit data demonstrating to EPA’s satisfaction that the source’s maximum HI for HCl and chlorine, or HQ for Mn, does not exceed 1.0.

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<sup>135</sup> *Id.* at 55,283, Appendix A § 5(a).

<sup>136</sup> *Id.* at 55,282, Appendix A § 4(b)(2).

<sup>137</sup> *Id.* at 55,283, Appendix A § 7.

The most significant flaw in the look-up table approach is that EPA instructs sources to use the average stack height of their multiple emission points in comparing emissions rates to the values in the tables<sup>138</sup>—an oversimplification that may understate the risks posed by the source. For example, if a source is configured such that its shortest, most highly-polluting stack is located closest to the source’s neighbors, a calculation that estimates risk by averaging with another emission point that is taller, cleaner, and farther away, may not accurately reflect the risk to those neighbors. In addition, the values in the look-up tables—that is, the maximum permissible emissions rates—vary depending on the emission point’s distance from the property boundary, but the Agency makes no attempt to account for other variables (for example, topography or climatic conditions, or proximity of local population centers) that could also significantly affect the risks a plant’s emissions pose.

Whatever the flaws in the look-up table approach, however, they pale in comparison to the inadequacies of the site-specific compliance demonstration, at least as the latter approach is described in the final rule. The only guidance EPA gives sources with respect to this second approach is that they must use a “scientifically-accepted peer-reviewed assessment methodology,”<sup>139</sup> and that their compliance demonstration must, at a minimum, (1) “[e]stimate long-term inhalation exposures through the estimation of annual or multi-year average ambient concentrations;”<sup>140</sup> (2) “[e]stimate the inhalation exposure for the individual most exposed to the facility’s emissions;”<sup>141</sup> (3) use “site-

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<sup>138</sup> *Id.* at 55,282, Appendix A § 6(a)(2).

<sup>139</sup> *Id.* at 55,282, Appendix A § 7.

<sup>140</sup> *Id.* at 55,283-84, Appendix A § 7(c)(1).

<sup>141</sup> *Id.* at 55,283-84, Appendix A § 7(c)(2).

specific, quality-assured data wherever possible;”<sup>142</sup> (4) use “health-protective default assumptions wherever site-specific data are not available;”<sup>143</sup> and (5) “[c]ontain adequate documentation of the data and methods used.”<sup>144</sup> This cursory outline does not even begin to place real, enforceable limits on facilities’ assessment methodology. The Agency does not, for example, explain how facilities are to estimate inhalation exposures. Are they required to estimate exposures for individuals who work or attend school in the vicinity of the plant, or only individuals who *live* nearby? Must they account for geographic and climatic variations that could affect dispersion of the pollutants, such as variations in topography, wind speeds, precipitation levels, or humidity levels? Moreover, EPA uses terms like “quality-assured data” and “health-protective default assumptions” that are entirely meaningless without further clarification. Such an obscure and permissive compliance approach cannot possibly satisfy § 112(d)(4)’s “ample margin of safety” requirement. Indeed, the methodology is so vague and unenforceable that one wonders whether *any* source will fail to qualify for the exemptions, no matter how high its HCl and Mn emissions.

As discussed above, the proposed ICI boiler and process heater rule failed to discuss the Agency’s legal justification for adopting 47 “no control” standards and to outline the possible contours of the risk-based exemptions (notably omitting any mention of the possibility of an Mn exemption). Thus, most of the objections raised above could not have been raised at the comment stage. Yet these objections, which make clear that neither the “no control” standards nor the exemptions can withstand legal challenge, “are

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<sup>142</sup> *Id.* at 55,283-84, Appendix A § 7(c)(3).

<sup>143</sup> *Id.* at 55,283-84, Appendix A § 7(c)(4).

<sup>144</sup> *Id.* at 55,283-84, Appendix A § 7(c)(5).

of central relevance to the outcome of the rule.”<sup>145</sup> Accordingly, EPA must “convene a proceeding for reconsideration of the rule and provide the same procedural rights as would have been afforded had the information been available at the time the rule was proposed.”<sup>146</sup> Furthermore, some of the issues we raise (notably the creation of 47 “no control” standards and the establishment of an HCl exemption that also enables facilities to avoid controlling emissions of *other, unidentified, non-metallic, inorganic HAPs*) are so crucial to the rulemaking, and so legally deficient, that EPA has violated its “duty to examine key assumptions as part of its affirmative ‘burden of promulgating and explaining a non-arbitrary, non-capricious rule.’”<sup>147</sup> EPA must therefore grant reconsideration of those issues or risk the rule’s invalidation in court.

Dated: November 11, 2004

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<sup>145</sup> 42 U.S.C. § 7607(d)(7)(B).

<sup>146</sup> *Id.*

<sup>147</sup> *Small Refiner Lead Phase-Down Task Force v. EPA*, 705 F.2d 506, 534-35 (D.C. Cir. 1983) (quoting *National Lime*, 627 F.2d at 433). See also *Appalachian Pwr. Co. v. EPA*, 135 F.3d 791, 818 (D.C. Cir. 1998).

## FACT SHEET

### PROPOSED AIR TOXICS STANDARDS FOR INDUSTRIAL, COMMERCIAL, AND INSTITUTIONAL BOILERS AND PROCESS HEATERS AT MAJOR SOURCE FACILITIES

#### ACTION

- On April 29, 2010, the Environmental Protection Agency (EPA) issued a proposed rule that would reduce emissions of toxic air pollutants from new and existing industrial, commercial, and institutional boilers and process heaters at major source facilities. A major source facility emits or has the potential to emit 10 or more tons per year (tpy) of any single air toxic or 25 tpy or more of any combination of air toxics.
- The proposed rule would reduce emissions of a number of toxic air pollutants, including mercury, other metals, and organic air toxics, which include polycyclic organic matter (POM) and dioxins.
- This rule will apply to two types of units, neither of which burn solid waste:
  - Boilers, which burn natural gas, fuel oil, coal, biomass (e.g., wood), refinery gas, or other gas to produce steam. The steam is used to produce electricity or provide heat.
  - Process heaters, which heat raw or intermediate materials during an industrial process.
- Boilers and process heaters are used at industrial facilities such as refineries, chemical and manufacturing plants, and paper mills and may stand alone to provide heat for commercial facilities such as shopping malls or institutional facilities such as universities. Most major source boilers and process heaters are located at industrial facilities.
  - EPA has identified 11 different subcategories of boilers and process heaters based on the design of the various types of units. The proposed rule would include specific requirements for each subcategory.
- This rulemaking will reduce toxic air pollutants, also known as hazardous air pollutants or air toxics. These pollutants are known or suspected to cause cancer and other serious health and environmental effects.
  - In 2013, EPA estimates 1,900 to 4,800 premature deaths would be avoided by implementing this proposed rule.
  - The rule would cut emissions of pollutants that are of particular concern for children. Mercury and lead can adversely affect developing brains – including effects on IQ, learning, and memory.
  - The rule would also reduce emissions of other pollutants including cadmium, dioxin, furans, formaldehyde and hydrochloric acid. These pollutants can cause cancer or other adverse health effects in adults and children.
  - Mercury, lead, dioxin, and furans can build up in the environment, causing serious environmental effects and harm to the food chain as well.

- EPA will accept comment on the proposal for 45 days after publication in the Federal Register. Also, EPA will hold a public hearing on this rule. Details will be posted at [www.epa.gov/airquality/combustion](http://www.epa.gov/airquality/combustion) as they become available.

#### PROPOSED REQUIREMENTS

- For all new and existing natural gas- and refinery gas-fired units, the proposed rule would establish a work practice standard instead of emission limits. The operator would be required to perform an annual tune-up for each unit.
- For all existing units with a heat input capacity less than 10 million British thermal units per hour (MMBtu/hr), the proposed rule would establish a work practice standard instead of emission limits. The operator would be required to perform a tune-up for each unit once every two years.
- Existing major source facilities would also be required to conduct an energy assessment to identify cost-effective energy conservation measures.
- The proposed rule would establish emission limits for all other existing and new boilers and process heaters located at major sources. The proposal would establish emission limits for:
  - mercury,
  - dioxin,
  - particulate matter (PM) (as a surrogate for non-mercury metals),
  - hydrogen chloride (HCl) (as a surrogate for acid gases), and
  - carbon monoxide (CO) (as a surrogate for non-dioxin organic air toxics)

#### BENEFITS AND COSTS

- EPA estimates that there are approximately 13,555 boilers and process heaters at major sources in the United States and that approximately 46 new units would be installed over the next 3 years.
- EPA estimates that implementation of the rulemaking, as proposed, would reduce nationwide emissions from major source boilers and process heaters by:
  - 15,000 pounds per year of mercury,
  - 3,200 tpy of non-mercury metals,
  - 37,000 tpy of HCl,
  - 50,000 tpy of PM,
  - 340,000 tpy of SO<sub>2</sub>, and
  - 722 grams per year of dioxin
  - 1,800 tpy of volatile organic compounds
- These emissions reductions would lead to the following annual health benefits. In 2013, this rule will protect public health by avoiding:
  - 1,900 to 4,800 premature deaths,
  - 1,300 cases of chronic bronchitis,
  - 3,000 nonfatal heart attacks,
  - 3,200 hospital and emergency room visits,

- 3,000 cases of acute bronchitis,
  - 250,000 days when people miss work,
  - 33,000 cases of aggravated asthma, and
  - 1,500,000 acute respiratory symptoms.
- The value of the benefits ranges from \$17 billion to \$41 billion in 2013 – outweighing the costs by at least \$14 billion.
  - EPA estimates the total national capital cost for the final rule to be approximately \$9.5 billion in the year 2013, with a total national annual cost of \$2.9 billion in the year 2013. The annual cost, which considers fuel savings, includes control device operation and maintenance as well as monitoring, recordkeeping, reporting, and performance testing.

### **THREE SEPARATE BUT RELATED ACTIONS**

- EPA has proposed a rule that would reduce emissions of toxic air pollutants from new and existing industrial, commercial, and institutional boilers and process heaters located at *area* source facilities. An area source facility has the potential to emit less than 10 tpy of any single air toxic or less than 25 tpy of any combination of air toxics. (<http://epa.gov/airquality/combustion/actions.html>)
- EPA has proposed a definition of solid waste. The definition could potentially affect some units currently considered boilers by moving them into category of commercial and industrial solid waste incinerators if they burn solid waste. (<http://www.epa.gov/wastes/nonhaz/definition.htm>)
- EPA has also proposed a rule to reduce air toxics from Commercial and Industrial Solid Waste Incinerators (CISWI). This proposed rule reflects the Agency's proposed definition of solid waste. (<http://epa.gov/airquality/combustion/actions.html>)

### **BACKGROUND**

- The CAA requires EPA to develop rules to reduce air toxics emissions from categories of facilities that emit one or more of 187 listed toxic air pollutants. These rules require the application of strict emissions controls known as maximum achievable control technology.
- EPA identified industrial boilers, commercial and institutional boilers, and process heaters as categories of major sources for which emission standards must be developed.
- The schedule for completing this rule is part of a court order, which requires the EPA Administrator to complete a final rule by December 16, 2010.
  - On September 13, 2004, EPA promulgated national emission standards for hazardous air pollutants for new and existing industrial/commercial/institutional boilers and process heaters.
- On June 19, 2007, the United States Court of Appeals for the District of Columbia Circuit vacated and remanded the 2004 standards. The court held that EPA incorrectly included boilers that combust solid waste in the development of the standards. The court stated that

any unit that combusts solid waste may not be included in the development of standards for boilers.

## HOW TO COMMENT

- EPA will accept comment on the proposal for 45 days after publication in the Federal Register. Comments, identified by Docket ID No. EPA-HQ-OAR-2002-0058, may be submitted by one of the following methods:
  - [www.regulations.gov](http://www.regulations.gov): Follow the on-line instructions for submitting comments.
  - E-mail: Comments may be sent by electronic mail (e-mail) to [a-and-r-Docket@epa.gov](mailto:a-and-r-Docket@epa.gov).
  - Fax: Fax your comments to: 202-566-1741.
  - Mail: Send your comments to: Air and Radiation Docket and Information Center, Environmental Protection Agency, Mail Code: 2822T, 1200 Pennsylvania Ave., NW, Washington, DC, 20460.
  - Hand Delivery or Courier: Deliver your comments to: EPA Docket Center, Room 3334, 1301 Constitution Ave., NW, Washington, DC, 20460. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

## FOR MORE INFORMATION

- To download this proposed rule from EPA's Web site, go to Recent Actions at <http://www.epa.gov/ttn/oarpg/new.html>.
- Today's action and other background information are also available either electronically at <http://www.regulations.gov>, EPA's electronic public docket and comment system, or in hardcopy at the EPA Docket Center's Public Reading Room.
  - The Public Reading Room is located at EPA Headquarters, room number 3334 in the EPA West Building, 1301 Constitution Avenue, NW, Washington, DC. Hours of operation are 8:30 a.m. to 4:30 p.m. eastern standard time, Monday through Friday, excluding Federal holidays.
  - Visitors are required to show photographic identification, pass through a metal detector and sign the EPA visitor log. All visitor materials will be processed through an X-ray machine as well. Visitors will be provided a badge that must be visible at all times.
  - Materials for this proposed action can be accessed using Docket ID No. EPA-HQ-OAR-2002-0058.
- For further information about the proposal, contact Mr. Brian Shrager of EPA's Office of Air Quality Planning and Standards, Sector Policies and Programs Division, Energy Strategies Group at (919) 541-7689 or by e-mail at [shrager.brian@epa.gov](mailto:shrager.brian@epa.gov).

## FACT SHEET

### PROPOSED AMENDMENTS TO NEW SOURCE PERFORMANCE STANDARDS AND EMISSION GUIDELINES FOR COMMERCIAL AND INDUSTRIAL SOLID WASTE INCINERATION UNITS

#### ACTION

- On April 29, 2010, the Environmental Protection Agency (EPA) proposed revisions to the December 2000 new source performance standards (NSPS) and emission guidelines (EG) for new and existing commercial and industrial solid waste incineration (CISWI) units.
- The proposed rule would reduce emissions of a number of toxic air pollutants, including mercury, other metals, and organic air toxics, which include dioxins. Toxic air pollutants, also known as hazardous air pollutants or air toxics, are those pollutants known or suspected of causing cancer and other serious health effects.
- The proposed rule would establish emission limits for nine pollutants emitted from CISWI units:
  - mercury
  - lead
  - cadmium
  - hydrogen chloride
  - particulate matter
  - carbon monoxide
  - dioxins/furans
  - nitrogen oxides
  - sulfur dioxide
- The proposed limits would keep an estimated 30,000 tons of these pollutants from being emitted into the air. Specifically, EPA expects to reduce 3,218 tons of hydrogen chloride and sulfur dioxide, 1,760 tons of particulate matter, 23,570 tons of carbon monoxide, 1,260 tons of nitrogen oxides, and 12 tons of metals (i.e., lead, cadmium, and mercury) and dioxins/furans.
- A CISWI unit is any device used to burn solid waste at a commercial or industrial facility. This does not include municipal solid waste incinerators, which are covered under separate rules. Examples of CISWI units include:
  - units designed to discard solid waste;
  - energy recovery units designed to recover heat that combust solid waste;
  - waste burning kiln that combust solid waste in the manufacture of a product; and
  - burn-off ovens that combust residual material off racks, parts, drums, or hooks so those items can be re-used in various production processes.
- Incinerators were the only subcategory covered in the 2000 rule. This proposed rule would cover five CISWI subcategories:
  - incinerators
  - energy recovery units
  - waste burning kilns
  - burn-off ovens; and
  - small, remote incinerators.

## PROPOSED REQUIREMENTS

- The proposed emission limits would require reductions at 172 of the 176 currently operating CISWI units. Four units are currently meeting the proposed emission limits.
- In addition to the emission limits, the proposal would also require:
  - Stack testing for newly regulated subcategories
  - Monitoring for newly regulated subcategories
  - Additional monitoring for new sources
  - Annual inspections of emission control devices
  - Annual visible emissions test of ash handling operations
  - That the owner/operator follow certain procedures for test data submittal
- CISWI units must either comply with the emission limits in the proposed rule (i.e., install add-on controls to capture emissions), or use alternative waste disposal options such as diverting waste to a landfill.
- EPA estimates that for some units, it would be more cost-effective to use an alternative disposal option. If those units used alternative disposal options, and the remainder used add-on controls, the total nationwide costs would be approximately \$216 million. If all 176 currently operating CISWI used add-on controls, the total nationwide cost for complying with the rule would be approximately \$244 million per year.
- We estimated the monetized benefits of this proposed regulatory action to be \$240 million to \$580 million (2008\$, 3 percent discount rate) in the implementation year (2015).
- EPA does not anticipate any new units to come online, and therefore, does not expect any emission reduction or cost impacts to result from the revised NSPS for new units.
- EPA will accept comment on the proposal for 45 days after publication in the Federal Register. Also, EPA will hold a public hearing on this rule. Details will be posted at [www.epa.gov/airquality/combustion](http://www.epa.gov/airquality/combustion) as they become available.

## BACKGROUND

- The Clean Air Act requires EPA to develop and adopt New Source Performance Standards (NSPS) and Emissions Guidelines (EG) for solid waste incineration units including CISWI. In 2000, when EPA issued NSPS and EG for CISWI units, there were approximately 140 CISWI units operating in the United States. Only 20 of those 140 CISWI units currently remain in operation.
- The 2000 NSPS and EG require new and existing incinerators to control emissions of the following nine pollutants: hydrogen chloride, carbon monoxide, lead, cadmium, mercury, particulate matter, dioxins/furans, nitrogen oxides, and sulfur dioxide to levels that reflect the degree of emission reduction based on the maximum achievable control technology (MACT).

- After promulgation of the final CISWI standards, EPA received and granted a request for reconsideration, pursuant to CAA Section 307(d)(7)(B) of the CAA, related to the definition of “commercial and industrial solid waste incineration unit” and “commercial or industrial waste” in EPA’s CISWI rulemaking. In granting the petition for reconsideration, EPA agreed to undertake further notice and comment proceedings related to these definitions.
- In addition, the United States Court of Appeals for the District of Columbia Circuit granted EPA’s request for a voluntary remand of the 2000 rule. The remand allowed the agency to address concerns related to the EPA’s procedures for establishing MACT standards for CISWI units in light of the U.S. Court of Appeals for the District of Columbia Circuit’s decision in *Cement Kiln Recycling Coalition v. EPA*, 255 F.3d 855 (D.C. Cir. 2001). The rule was not vacated and remains in effect. The rule requirements were fully implemented in December 2005.
- In 2005, EPA proposed and finalized the commercial and industrial solid waste incineration definitions rule which revised the definition of “solid waste”, “commercial and industrial waste”, and “commercial and industrial waste incineration unit”.
- In 2007, the United States Court of Appeals for the District of Columbia Circuit vacated and remanded the 2005 commercial and industrial solid waste incineration definitions rule.
- Section 129(a)(5) of the Clean Air Act directs EPA to review standards of performance and revise them as necessary every five years.
- Today’s action proposes revisions to the CISWI NSPS and EG in response to the Court’s remand of the 2000 CISWI and responds to the remand and vacatur of the commercial and industrial solid waste incineration definitions rule in 2007. In addition, this action includes the five-year technology review of the NSPS and EG required under Section 129. EPA considered the proposed non-hazardous solid waste definition (which is proposed in a separate notice (<http://www.epa.gov/wastes/nonhaz/definition.htm>) when determining the units that should be considered CISWI units for purposes of establishing the proposed NSPS and EG.

### **THREE SEPARATE BUT RELATED ACTIONS**

- EPA has proposed a rule that would reduce emissions of toxic air pollutants from new and existing industrial, commercial, and institutional boilers and process heaters located at *major* source facilities. A major source facility emits or has the potential to emit 10 or more tons per year (tpy) of any single air toxic or 25 tpy or more of any combination of air toxics. (<http://epa.gov/airquality/combustion/actions.html>)
- EPA has proposed a rule that would reduce emissions of toxic air pollutants from new and existing industrial, commercial, and institutional boilers and process heaters located at *area* source facilities. An area source facility emits or has the potential to emit less than 10 tons per year (tpy) of any single air toxic or less than 25 tpy of any combination of air toxics. (<http://epa.gov/airquality/combustion/actions.html>)

- EPA has proposed a definition of solid waste for non-hazardous secondary material under Subtitle D of RCRA. The definition would define some non-hazardous secondary materials that are combusted as waste (the burning of which would make a combustion unit a solid waste incineration unit) and others as secondary materials (the burning of which would not cause a combustion unit to be considered a solid waste incineration unit). One potential implication of the proposed definition of solid waste is that some combustion units currently considered boilers would be subject to the proposed CISWI standards in the energy recovery unit subcategory if they continued to combust solid waste.

## **HOW TO COMMENT**

- EPA will accept comment on the proposal for 45 days after publication in the Federal Register. Comments, identified by Docket ID No. EPA-HQ-OAR-2003-0119, may be submitted by one of the following methods:
  - [www.regulations.gov](http://www.regulations.gov): Follow the on-line instructions for submitting comments.
  - E-mail: Comments may be sent by electronic mail (e-mail) to [a-and-r-Docket@epa.gov](mailto:a-and-r-Docket@epa.gov).
  - Fax: Fax your comments to: 202-566-1741.
  - Mail: Send your comments to: Air and Radiation Docket and Information Center, Environmental Protection Agency, Mail Code: 2822T, 1200 Pennsylvania Ave., NW, Washington, DC, 20460.
  - Hand Delivery or Courier: Deliver your comments to: EPA Docket Center, Room 3334, 1301 Constitution Ave., NW, Washington, DC, 20460. Such deliveries are only accepted during the Docket's normal hours of operation, and special arrangements should be made for deliveries of boxed information.

## • **FOR MORE INFORMATION**

- To download this proposed rule from EPA's Web site, go to Recent Actions at <http://www.epa.gov/airquality/combustion>
- Today's action and other background information are also available either electronically at <http://www.regulations.gov>, EPA's electronic public docket and comment system, or in hardcopy at the EPA Docket Center's Public Reading Room.
  - The Public Reading Room is located at EPA Headquarters, room number 3334 in the EPA West Building, 1301 Constitution Avenue, NW, Washington, DC. Hours of operation are 8:30 a.m. to 4:30 p.m. eastern standard time, Monday through Friday, excluding Federal holidays.
  - Visitors are required to show photographic identification, pass through a metal detector and sign the EPA visitor log. All visitor materials will be processed through an X-ray machine as well. Visitors will be provided a badge that must be visible at all times.
  - Materials for this proposed action can be accessed using Docket ID No. EPA-HQ-OAR-2003-0119.

- For further information about the proposed rule, contact Ms. Charlene Spells of EPA's Office of Air Quality Planning and Standards, Sector Policies and Programs Division, Natural Resources and Commerce Group at (919) 541-5255 or by e-mail at [spells.charlene@epa.gov](mailto:spells.charlene@epa.gov).

**SUMMARY - Baseline Emissions by Fuel Type**

Fuel Subcategory	Pollutant	Baseline Emissions (tpy)	
biomass 420 boilers	Hg	4.65E-01	
	PM - filterable	27,925	
	PM 2.5	19,076	
	HCl	1,866.0	
	THC	5,555	
	VOC	3,189	
	CO	236,504	
	Dioxin/Furans (total mass)	4.92E-04	
	HF	56	
	SO2	19,354	
	Non-Hg Metals	300	
	Coal 578 boilers	Hg	9
		PM - filterable	26,924
		PM 2.5	13,348
HCl		44,640	
THC		1,736	
VOC		996	
CO		141,317	
Dioxin/Furans (total mass)		3.15E-04	
HF		1,353	
SO2		383,228	
Non-Hg Metals		1,888	
Gas 1 10,783 boilers		Hg	9.11E-01
		PM - filterable	12,179
		PM 2.5	12,179
	HCl	872	
	THC	8,620	
	VOC	4,948	
	CO	62,719	
	Dioxin/Furans (total mass)	2.18E-04	
	HF	12,151	
	SO2	7,330	
	Non-Hg Metals	116	
	Gas 1 - Metal Furnaces 749 boilers	Hg	0
		PM - filterable	516
		PM 2.5	516
HCl		40	
THC		3,948	
VOC		2,266	
CO		18,731	
Dioxin/Furans (total mass)		3.81E-05	
HF		16	
SO2		113	
Non-Hg Metals		10	
Gas 2 199 boilers		Hg	2.04E-01
		PM - filterable	1,774
		PM 2.5	1,774.32
	HCl	220	
	THC	419	
	VOC	241	
	CO	8,262	
	Dioxin/Furans (total mass)	2.21E-05	
	HF	28	
	SO2	7,029	
	Non-Hg Metals	18	
	Liquid 826 boilers	Hg	0
		PM - filterable	11,346
		PM 2.5	5,629
HCl		1,042	
THC		528	
VOC		303	
CO		105,128	
Dioxin/Furans (total mass)		5.76E-05	
HF		46	
SO2		24,823	
Non-Hg Metals		2,677	

**SUMMARY Option 1E Emission REDUCTIONS**

Fuel Subcategory	Pollutant	Emission Reductions (tpy)	
biomass 420 boilers	Hg	2.19E-01	
	PM - filterable	22,549	
	PM 2.5	15,086	
	HCl	516.2	
	THC	1,326	
	VOC	761	
	CO	107,536	
	Dioxin/Furans (total mass)	4.47E-04	
	HF	8	
	SO2	11,172	
	Non-Hg Metals	227	
	Coal 578 boilers	Hg	7
		PM - filterable	17,067
		PM 2.5	8,514
HCl		35,446	
THC		851	
VOC		489	
CO		112,286	
Dioxin/Furans (total mass)		2.93E-04	
HF		804	
SO2		298,823	
Non-Hg Metals		768	
Gas 1 10,783 boilers		Hg	5.79E-01
		PM - filterable	390
		PM 2.5	390
	HCl	540	
	THC	4,800	
	VOC	2,755	
	CO	41,551	
	Dioxin/Furans (total mass)	0.00E+00	
	HF	7,497	
	SO2	6,962	
	Non-Hg Metals	0	
	Gas 1 - Metal Furnaces 749 boilers	Hg	0
		PM - filterable	15
		PM 2.5	15
HCl		21	
THC		3,846	
VOC		2,207	
CO		18,656	
Dioxin/Furans (total mass)		3.73E-05	
HF		8	
SO2		89	
Non-Hg Metals		0	
Gas 2 199 boilers		Hg	1.72E-01
		PM - filterable	-
		PM 2.5	-
	HCl	220	
	THC	302	
	VOC	173	
	CO	8,150	
	Dioxin/Furans (total mass)	2.16E-08	
	HF	27	
	SO2	6,677	
	Non-Hg Metals	-	
	Liquid 826 boilers	Hg	-
		PM - filterable	10,468
		PM 2.5	5,293
HCl		845	
THC		505	
VOC		290	
CO		104,949	
Dioxin/Furans (total mass)		5.37E-05	
HF		34	
SO2		22,910	
Non-Hg Metals		2,230	

**SUMMARY Option 4E Emission REDUCTIONS**

Fuel Subcategory	Pollutant	Emission Reductions (tpy)	
biomass 420 boilers	Hg	2.19E-01	
	PM - filterable	22,493	
	PM 2.5	15,083	
	HCl	515.9	
	THC	1,326	
	VOC	761	
	CO	107,511	
	Dioxin/Furans (total mass)	4.47E-04	
	HF	8	
	SO2	11,159	
	Non-Hg Metals	227	
	Coal 578 boilers	Hg	7
		PM - filterable	17,067
		PM 2.5	8,514
HCl		35,446	
THC		851	
VOC		489	
CO		112,286	
Dioxin/Furans (total mass)		2.93E-04	
HF		804	
SO2		298,823	
Non-Hg Metals		768	
Gas 1 10,783 boilers		Hg	9.11E-03
		PM - filterable	122
		PM 2.5	122
	HCl	9	
	THC	86	
	VOC	49	
	CO	627	
	Dioxin/Furans (total mass)	2.18E-06	
	HF	122	
	SO2	73	
	Non-Hg Metals	1	
	Gas 1 - Metal Furnaces 749 boilers	Hg	0
		PM - filterable	5
		PM 2.5	5
HCl		0	
THC		39	
VOC		23	
CO		187	
Dioxin/Furans (total mass)		3.81E-07	
HF		0	
SO2		1	
Non-Hg Metals		0	
Gas 2 199 boilers		Hg	1.72E-01
		PM - filterable	0
		PM 2.5	0.00
	HCl	220	
	THC	302	
	VOC	173	
	CO	8,150	
	Dioxin/Furans (total mass)	2.16E-08	
	HF	27	
	SO2	6,677	
	Non-Hg Metals	0	
	Liquid 826 boilers	Hg	0
		PM - filterable	10,433
		PM 2.5	5,287
HCl		841	
THC		501	
VOC		287	
CO		102,676	
Dioxin/Furans (total mass)		5.33E-05	
HF		34	
SO2		22,784	
Non-Hg Metals		2,203	

**SUMMARY Alternative Solid Waste Definition**

Fuel Subcategory	Pollutant	Baseline Emissions (tpy)	
biomass 239 boilers	Hg	2.51E-01	
	PM - filterable	7,030	
	PM 2.5	4,955	
	HCl	988.0	
	THC	1,576	
	VOC	905	
	CO	58,443	
	Dioxin/Furans (total mass)	1.06E-04	
	HF	761	
	SO2	7,652	
	Non-Hg Metals	201	
	Coal 525 boilers	Hg	8
		PM - filterable	11,502
		PM 2.5	5,365
HCl		4,520	
THC		8,174	
VOC		4,692	
CO		206,622	
Dioxin/Furans (total mass)		2.24E-04	
HF		2,827	
SO2		47,336	
Non-Hg Metals		1,751	
Gas 1 10,775 boilers		Hg	9.08E-01
		PM - filterable	30,903
		PM 2.5	30,903
	HCl	11,100	
	THC	15,494	
	VOC	8,893	
	CO	296,574	
	Dioxin/Furans (total mass)	4.29E-04	
	HF	8,909	
	SO2	84,509	
	Non-Hg Metals	115	
	Gas 1 - Metal Furnaces 749 boilers	Hg	0
		PM - filterable	769
		PM 2.5	769
HCl		354	
THC		352	
VOC		202	
CO		8,978	
Dioxin/Furans (total mass)		9.45E-06	
HF		250	
SO2		1,688	
Non-Hg Metals		10	
Gas 2 196 boilers		Hg	1.97E-01
		PM - filterable	2,181
		PM 2.5	2,181.49
	HCl	180	
	THC	1,228	
	VOC	705	
	CO	21,556	
	Dioxin/Furans (total mass)	2.66E-05	
	HF	869	
	SO2	2,512	
	Non-Hg Metals	18	
	Liquid 791 boilers	Hg	0
		PM - filterable	4,169
		PM 2.5	1,268
HCl		1,493	
THC		2,626	
VOC		1,507	
CO		45,364	
Dioxin/Furans (total mass)		1.07E-04	
HF		1,057	
SO2		12,015	
Non-Hg Metals		2,591	

**SUMMARY - Baseline Emissions by Fuel Type**  
Existing Boilers and Process Heaters at Major Sources

Fuel Subcategory	Pollutant	Baseline Emissions (tpy)
TOTAL	Hg	11
13,555 boilers	PM - filterable	80,665
	PM 2.5	52,523
	HCl	48,680
	THC	20,806
	VOC	11,942
	CO	572,662
	Dioxin/Furans (total mass)	1.14E-03
	HF	13,650
	SO2	441,878
	Non-Hg Metals	5,009

**SUMMARY Option 1E Emission REDUCTIONS**

Existing Boilers and Process Heaters at Major Sources

Fuel Subcategory	Pollutant	Emission Reductions (tpy)
TOTAL	Hg	8
13,555 boilers	PM - filterable	50,489
	PM 2.5	29,299
	HCl	37,587
	THC	11,630
	VOC	6,675
	CO	393,127
	Dioxin/Furans (total mass)	8.32E-04
	HF	8,380
	SO2	346,633
	Non-Hg Metals	3,226

**SUMMARY Option 4E Emission REDUCTIONS**

Existing Boilers and Process Heaters at Major Sources

Fuel Subcategory	Pollutant	Emission Reductions (tpy)
TOTAL	Hg	8
13,555 boilers	PM - filterable	50,120
	PM 2.5	28,992
	HCl	37,032
	THC	3,105
	VOC	1,782
	CO	331,437
	Dioxin/Furans (total mass)	7.96E-04
	HF	996
	SO2	339,518
	Non-Hg Metals	3,199

**SUMMARY Alternative Solid Waste Definition**

Existing Boilers and Process Heaters at Major Sources

Fuel Subcategory	Pollutant	Baseline Emissions (tpy)
TOTAL	Hg	10
13,275 boilers	PM - filterable	56,554
	PM 2.5	45,441
	HCl	18,635
	THC	29,451
	VOC	16,904
	CO	637,537
	Dioxin/Furans (total mass)	9.02E-04
	HF	14,672
	SO2	155,712
	Non-Hg Metals	4,687

**NOTES:**

1. Non-Hg Metallic HAP are shown in a separate summary table. Reductions in non-Hg Metallic HAP were estimated using the calculated percent reduction in PM emissions.
2. Emission reductions for THC and VOC were calculated using the calculated percent reduction in CO emissions.
3. Emission reductions for HF and SO2 were calculated using the unit's percent reduction in HCl emissions.

Emission Reductions (tpy)	
1.80E-01	5,353
	3,734
	506.9
	357
	205
	36,229
1.24E-05	13
	4,101
	17
	6
	5,455
	2,432
	3,010
	3,954
	2,270
	176,806
1.91E-04	77
	28,616
	98
2.98E-01	309
	309
	111
	155
	89
	2,966
4.29E-06	89
	845
	1
	0
	8
	8
	4
	4
	2
	90
9.45E-08	2
	17
	0
1.65E-01	606
	606.01
	179
	1,178
	676
	21,434
5.00E-06	864
	2,387
	0
	0
	3,288
	952
	1,295
	2,547
	1,462
	44,781
1.03E-04	32
	8,126
	1,458
	7
	15,019
	8,040
	5,106

Emission Reductions (tpy)
8,194
4,703
282,306
3.15E-04
1,077
44,082
1,575



**Memorandum**

**To:** Amy Hambrick, U.S. EPA, Sector Policies and Programs Division/Natural Resources and Commerce Group

**From:** Roy Oommen, ERG

**Date:** June 2010

**Subject:** Estimation of Baseline Emissions from Existing Sewage Sludge Incineration Units

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**1.0 INTRODUCTION**

The U.S. Environmental Protection Agency (EPA), under section 129 of the Clean Air Act (CAA), is required to regulate emissions of nine pollutants and opacity from sewage sludge incineration (SSI) units: hydrogen chloride (HCl), carbon monoxide (CO), lead (Pb), cadmium (Cd), mercury (Hg), particulate matter (PM), dioxins/furans (CDD/CDF mass basis and toxic equivalency (TEQ) basis), nitrogen oxides (NO<sub>x</sub>), and sulfur dioxide (SO<sub>2</sub>). In order to assess the affects of regulatory requirements on these pollutants, it is first necessary to determine their emissions at the current level of control at each SSI unit. These emissions are referred to as the baseline emissions.

This memorandum describes the development of baseline emissions estimates for existing sources in the SSI source category. Section 2.0 discusses the sources of data used in the development of the baseline emission estimates, Section 3.0 presents the methodology used to estimate baseline emissions, and Section 4.0 summarizes the results of this analysis. Table 1-1 summarizes the baseline emissions estimated for the nine section 129 pollutants regulated by SSI emission guidelines for existing sources in two subcategories, multiple hearth (MH) incinerators, and fluidized bed (FB) incinerators. Baseline emissions of PM<sub>2.5</sub> were calculated from emissions data collected by EPA and assuming that controls applicable for PM would also reduce PM<sub>2.5</sub>.

**Table 1-1. Summary of Baseline Emissions for Existing SSI Units (tons per year)**

Sub-category	Cd	Pb	Hg	HCl	SO <sub>2</sub>	NO <sub>x</sub>	CO	PM	PM <sub>2.5</sub>	CDD/CDF (mass) <sup>a</sup>	CDD/CDF (TEQ) <sup>a</sup>
MH	2.83	6.06	3.05	123	3,080	7,360	29,000	1,100	666	0.000020	0.0000013
FB	0.010	0.053	0.076	2.99	134	327	120	56.6	54.2	0.000083	0.0000068

<sup>a</sup>Because emissions information for FB units collected were only for SSI units with ACI, the back-calculation method for CDD/CDF results in overestimates of the baseline emissions. This is an artifact of the methodology. Technical papers on SSI units indicate that total hydrocarbon emissions should be lower for FB units than MH units.<sup>5</sup>

**2.0 DATA SOURCES**

Emissions information on SSI units was collected from two sources. An information collection request (ICR) survey was sent to nine owners of SSI's units, who provided

characterization information (costs, controls, operating information) for their units.<sup>1</sup> The survey respondents also provided emissions test data from 16 SSI units. Some of the tests were conducted in response to the ICR; other test reports were for tests conducted within five years prior to the ICR request. A second source of emissions information was test reports collected from State environmental agencies' public databases for nine SSI units (all MH units). The emission tests in these reports were conducted between 2000 and 2009. The emissions information and ICR responses are further discussed in the memorandum, "Facility, Unit, and Emissions Test Database for the Sewage Sludge Incineration Source Category".<sup>1</sup>

Baseline emissions were calculated for 218 SSI units, of which 163 have the MH combustor design and 55 have the fluidized bed FB combustor design. As indicated above, emissions information was gathered on 25 SSI units (20 MH and 5 FB units). The information in the emissions test reports were then applied to the other SSI units based on their characteristics and controls. The inventory of SSI units is discussed in the memorandum, "Inventory Database for the Sewage Sludge Incineration Source Category".<sup>2</sup>

### **3.0 METHODOLOGY FOR ESTIMATING BASELINE EMISSIONS**

All the emissions information collected were for stack tests conducted following all the control devices, i.e., controlled emissions at the baseline level of control. For units where emissions information was gathered, the average concentration of the individual test runs was used to calculate their baseline emissions. If multiple tests were conducted for a unit, then the average was calculated as the average of all the test runs. Baseline emissions on an annual basis were calculated from the concentration reported in the test information (either parts per million volume dry (ppmvd), milligrams per dry standard cubic meter (mg/dscm), or nanograms per dry standard cubic meter (ng/dscm)), the flue gas flow rate of the emission stream (in dry standard cubic feet per minute (dscfmm), and the hours of operation of the unit. Attachment A shows the calculations used for converting concentration values to emission rates.

For the remaining units where emissions information was not available, baseline emissions were calculated using an average concentration factor, average flow rate factor, and default hours of operation. The development and use of these parameters is discussed in this section.

#### **3.1 Assignment of Concentrations**

In order to calculate baseline emissions for all units, an average concentration was calculated from the known information and assigned to the remaining units without data. First, the uncontrolled average concentration for each unit with test data was calculated using the following equation:

$$\text{Uncontrolled Concentration} = (\text{Controlled Concentration}) \div [1 - (\% \text{ control efficiency}/100)]$$

The control efficiencies used in the calculation are presented in Table 3-1. The efficiencies were based on assumptions used in previous EPA regulations, particularly the industrial, commercial, and institutional boiler NESHAP, and incorporate engineering judgment based on information provided by EPA testing personnel, internet web searches, and EPA technical documents and fact

sheets on control devices.<sup>3-5</sup> For this analysis, whenever there were multiple control devices affecting the same pollutant, the highest reduction efficiency for all the controls was used. For example, if a unit had a venturi scrubber and a fabric filter, the control efficiency of the fabric filter for cadmium and lead control was assigned to the combination because fabric filters are more efficient in controlling these pollutants. While some additional control may be achieved from multiple controls in series, most of the controls currently used at SSI units do not generally overlap in their effectiveness for most pollutants. The assumption also provides the most conservative estimate of performance. Although some units use thermal oxidizers or afterburners and achieve lower CO emissions levels, reduction efficiency was not assigned to them for CO because data were not available to determine a percent reduction value. For these units, the baseline level of CO emissions will be overstated. FGR has been used on combustion devices to reduce NO<sub>x</sub> emissions. However, the amount of NO<sub>x</sub> reduced varies widely, ranging from 20 percent to 80 percent, and site-specific factors often affect the performance. Emissions test data collected by EPA showed that one unit providing emission test data operates a MH unit with FGR. However, its emission levels are similar to units without FGR. So no conclusion could be made on FGR performance. Emission tests conducted at 5 FB units and 6 MH units included emissions data on PM<sub>2.5</sub>. This data was used to calculate baseline emissions assuming controls applicable to PM would also reduce PM<sub>2.5</sub>.

Once all concentration data were converted to uncontrolled levels, all the uncontrolled data points for a pollutant in a subcategory were averaged to develop average uncontrolled concentration levels. Table 3-2 presents the average uncontrolled concentrations calculated for each pollutant in the MH and FB subcategories.

**Table 3-2. Average Uncontrolled Concentrations Applied to SSI Units without Data<sup>a</sup>**

Subcategory	Cd	Pb	Hg	HCl	SO <sub>2</sub>	NO <sub>x</sub>	CO	PM	PM <sub>2.5</sub>	CDD/CDF (mass) <sup>b</sup>	CDD/CDF (TEQ) <sup>b</sup>
	mg/dscm	mg/dscm	mg/dscm	ppm	ppm	ppm	ppm	mg/dscm	mg/dscm	ng/dscm	ng/dscm
MH	0.89	1.91	0.114	13.1	186	133	854	722	439	0.70	0.047
FB	0.043	0.221	0.015	2.48	66.1	27.9	16.3	249	236	16	1.31

<sup>a</sup>Concentrations are at 7 percent oxygen.

<sup>b</sup>Because emissions information for FB units collected were only for SSI units with ACI, the back-calculation method for CDD/CDF results in overestimates of the uncontrolled concentrations. This is an artifact of the methodology. Technical papers on SSI units indicate that total hydrocarbon emissions should be lower for FB units than MH units.<sup>5</sup>

The average uncontrolled levels developed for each pollutant were then used to estimate emissions after application of existing controls (referred to as baseline emissions) for each SSI unit without emissions data by applying the pollutant control efficiencies (from Table 3-1) for the control devices currently in use (as identified in the SSI inventory database). The following equation was used:

$$\text{Baseline Concentration} = (\text{Uncontrolled Concentration}) \times [1 - (\% \text{ control efficiency}/100)]$$

### 3.2 Development of Flow Rate Factor

The flue gas flow rate exiting the SSI units where data were not available was calculated by using a flow rate factor relating flue gas flow rate to the dry tons of sludge fired in the

incinerator. The sludge feed rates for the surveyed units were provided in the emission test reports collected. An average flue gas flow rate factor from all the test data was then calculated for each subcategory. The flow rate factor for MH units was calculated to be 9,642.5 dscfm/dry tons per hour of sludge. The flow rate factor for FB units was calculated to be 5,455.7 dscfm/dry tons per hour of sludge.

A flow rate was then calculated for each SSI unit without information by multiplying the flow rate factor by the dry sludge feed rate of each SSI unit. For units where average sludge feed rates were not known, unit capacities were multiplied by a capacity utilization factor of 75 percent, which was the median of the capacity utilizations reported in the ICR survey responses.<sup>1</sup> More information about how unit capacity values were obtained can be found in the SSI inventory database memorandum.<sup>2</sup>

### **3.3 Development of Default Operating Time**

For some of the surveyed SSI units, the operating time was provided.<sup>1</sup> However, these varied for each unit and no consistent pattern could be identified. For this analysis, the assumption was made that facilities with only one SSI unit would be operating the unit the entire year (8,400 hours assuming 2 weeks downtime). Facilities with two units would be operating one unit one year and the second unit the next, averaging to 4,200 hours for each if normalized to a yearly basis. Facilities with even numbers of units followed this assumption. Facilities with three units were assumed to be operating two units the majority of the year (8,400 hours) and one unit would be a backup and operate 360 hours (assuming operation during 2 weeks downtime for other units).

## **4.0 SUMMARY OF RESULTS**

Attachment B presents the baseline concentrations and calculated emissions for each pollutant and at each SSI unit. Attachment C presents the dry sludge capacity, sludge feed rate, flue gas flow rate, and operating hours for each SSI unit.

## **5.0 REFERENCES**

1. Facility, Unit, and Emissions Test Database for the Sewage Sludge Incineration Source Category. Memorandum from Eastern Research Group to Amy Hambrick, U.S. Environmental Protection Agency. June 2010.
2. Inventory Database for the Sewage Sludge Incineration Source Category. Memorandum from Eastern Research Group to Amy Hambrick, U.S. Environmental Protection Agency. June 2010.
3. Development of Baseline Emission Factors for Boilers and Process Heaters at Commercial, Industrial, and Institutional Facilities. Memorandum from Amanda Singleton and Graham Gibson, Eastern Research Group to Jim Eddinger, U.S. EPA. April 2010.
4. Technology Transfer Network, Clean Air Technology Center.  
<http://www.epa.gov/ttn/catc/products.html>

5. A Comparison of Fluid Bed and Multiple Hearth Biosolids Incineration. Ky Dangtran, John Mullen, and Dale Mayrose. Paper presented at the 14<sup>th</sup> Annual Residuals and Sludge Management Conference. February 27-March 1, 2000, Boston MA

**Table 3-1**

**Control Efficiency Assumptions**

Table 3-1. Control Efficiency Assumptions for Baseline Emissions Estimates<sup>1</sup>

Subcategory	Controls <sup>2</sup>	CdEfficiency	PbEfficiency	HgEfficiency	HClEfficiency	SO <sub>2</sub> Efficiency	NO <sub>x</sub> Efficiency	COEfficiency	D/FEfficiency	PMEfficiency
FB	vs	0.95	0.95	0	0	0	0	0	0	0.95
FB	vs - cs	0.95	0.95	0	0	0.95	0	0	0	0.95
FB	vs - imp	0.95	0.95	0.1	0.95	0.95	0	0	0	0.95
FB	vs - imp - wesp	0.98	0.98	0.1	0.95	0.95	0	0	0	0.99
FB	ccpt	0.95	0.95	0.1	0.98	0.95	0	0	0	0.9
FB	cs - vs - pbt	0.95	0.95	0.1	0.98	0.98	0	0	0	0.95
FB	vs(ad) - wesp	0.98	0.98	0.1	0.98	0.98	0	0	0	0.99
FB	abd - mc - vs - imp	0.95	0.95	0.1	0.95	0.95	0	0	0	0.95
FB	abo - imp - wesp	0.95	0.95	0.1	0.95	0.95	0	0	0	0.99
FB	abd - vs - imp - hss - cs	0.95	0.95	0.1	0.95	0.95	0	0	0	0.95
FB	ac inject. - bag - vs(ad) - wesp	0.99	0.99	0.88	0.93	0.95	0	0	0.98	0.99
FB	vs - imp - wesp - ac polish.	0.98	0.98	0.88	0.93	0.95	0	0	0.98	0.99
MH	abd - imp	0.5	0.5	0.1	0.95	0.95	0	0	0	0.9
MH	abd - vs	0.95	0.95	0	0	0	0	0	0	0.95
MH	abd - vs - imp	0.95	0.95	0.1	0.95	0.95	0	0	0	0.95
MH	abo - cs - vs - imp	0.95	0.95	0.1	0.95	0.95	0	0	0	0.95
MH	abo - fgr - vs - imp	0.95	0.95	0.1	0.95	0.95	0	0	0	0.95
MH	abo - imp	0.5	0.5	0.1	0.95	0.95	0	0	0	0.9
MH	abo - imp - wesp	0.95	0.95	0.1	0.95	0.95	0	0	0	0.99
MH	abo - fgr - vs(ad) - imp	0.95	0.95	0.1	0.98	0.98	0	0	0	0.95
MH	abo - vs	0.95	0.95	0	0	0	0	0	0	0.95
MH	abo - vs - imp	0.95	0.95	0.1	0.95	0.95	0	0	0	0.95
MH	abo - vs - vs	0.95	0.95	0	0	0	0	0	0	0.95
MH	abo/fgr - pbs - vs - imp	0.95	0.95	0.1	0.98	0.98	0	0	0	0.95
MH	abd - vs - imp - wesp	0.98	0.98	0.1	0.95	0.95	0	0	0	0.99
MH	agr - vs - imp - wesp - rto	0.95	0.95	0.1	0.95	0.95	0	0	0	0.99
MH	cs - vs(ad)	0.95	0.95	0.1	0.95	0.95	0	0	0	0.95
MH	hjs - imp	0.5	0.5	0.1	0.95	0.95	0	0	0	0.9
MH	imp	0.5	0.5	0.1	0.95	0.95	0	0	0	0.9
MH	va - imp	0.95	0.95	0.1	0.95	0.95	0	0	0	0.9
MH	vs	0.95	0.95	0	0	0	0	0	0	0.95
MH	vs - imp	0.95	0.95	0.1	0.95	0.95	0	0	0	0.95
MH	vs - imp - rto	0.95	0.95	0.1	0.95	0.95	0	0	0	0.95
MH	vs - imp - wesp	0.98	0.98	0.1	0.95	0.95	0	0	0	0.99
MH	vs - imp - wesp - rto	0.98	0.98	0.1	0.95	0.95	0	0	0	0.99
MH	vs - wesp	0.98	0.98	0	0	0	0	0	0	0.99
MH	vs - wesp - rto	0.98	0.98	0	0	0	0	0	0	0.99
MH	vs(a)	0.95	0.95	0.1	0.95	0.95	0	0	0	0.95
MH	vs(ad)	0.95	0.95	0.1	0.95	0.95	0	0	0	0.95
MH	vs-imp	0.95	0.95	0.1	0.95	0.95	0	0	0	0.95
MH	ws - vs - imp	0.95	0.95	0.1	0.95	0.95	0	0	0	0.95
MH	ws - vs - pbs - vs(ad)	0.95	0.95	0.1	0.98	0.95	0	0	0	0.95
MH	ws - vs - pbs - ringjet	0.95	0.95	0.1	0.98	0.98	0	0	0	0.95
FB	unknown	0.95	0.95	0	0	0	0	0	0	0.95
MH	unknown	0.95	0.95	0	0	0	0	0	0	0.95

Control Abbreviations:

Abbreviation	Control
abd	detached afterburner
abo	on-heatr afterburner
ac inject.	activated carbon injection for mercury control
ac polish.	activated carbon polishing for mercury control
agr	acid gas removal system
bag	baghouse
ccpt	counter-current packed tower
cs	cyclone seperator
cs/tg	twin gas cyclonic scrubber
fgr	flue gas recirculation
hjs	horizontal gas scrubber
hss	hydrosonic scrubber
imp	impingement tray scrubber
pbs	packed bed scrubber
pbt	packed bed tower
rto	regenerative thermal oxidizer
vs	venturi scrubber
vs(ad)	venturi pak or ring jet scrubbers
wesp	wet electro static precipitator
whs	wet hydrosonic scrubber
ws	wet scrubber (undefined)
mc	multiclone

<sup>1</sup> Information based on analysis conducted in the memorandum "Development of Baseline Emission Factors for Boilers and Process Heaters at Commercial, Industrial, and Institutional Facilities". From Amanda Singleton and Graham Gibson, Eastern Research Group to Jim Eddinger, U.S. EPA. April 2010 and using studies and analyses in U.S. EPA's Technology Transfer Network, Clean Air Technology Center. <http://www.epa.gov/ttn/catc/products.html>

<sup>2</sup> Email from Robert Dominak, Co-Chair NACWA Biosolids Management Committee, to Amy Hambrick, U.S. EPA, on 8/5/2009: "SSI Inventory Updated Information." Attachment: SSI\_Inventory (RPD 8-5-09).xls

## **Attachment A**

### **Conversion of Units**

The following calculations were used to develop ton/year emission estimates:

**PM, Pb, Cd and Hg**

Concentration "X" given in mg/dscm, flow rate "FR" in dscf/minute (dscfm), and annual hours "H" (hours/year):

$$\frac{[X(\text{mg/dscm}) \times \text{FR}(\text{dscf/min}) \times 60(\text{min/hr}) \times \text{H}(\text{hr/year})]}{[35.3147(\text{dscf/dscm}) \times 453,592(\text{mg/lb}) \times 2,000(\text{lb/ton})]} = (\text{ton/yr})$$

**CDD/CDF**

Concentration "X" given in ng/dscm, flow rate "FR" in dscf/minute (dscfm), and annual hours "H" (hours/year):

$$\frac{[X(\text{ng/dscm}) \times \text{FR}(\text{dscf/min}) \times 60(\text{min/hr}) \times \text{H}(\text{hr/year})]}{[35.3147(\text{dscf/dscm}) \times 1,000,000 (\text{ng/mg}) \times 453,592(\text{mg/lb}) \times 2,000(\text{lb/ton})]} = (\text{ton/yr})$$

**HCl, NO<sub>x</sub>, SO<sub>2</sub>, CO**

Concentration "X" given in ppmvd, flow rate "FR" in dscf/minute (dscfm), annual hours "H" (hours/year), and molecular weight "MW" as follows: HCl = 36.45, NO<sub>x</sub> = 46, SO<sub>2</sub> = 64.06, CO = 28.01:

$$\frac{[X(\text{ppmvd}) \times \text{MW}(\text{lb/lbmol}) \times \text{FR}(\text{dscf/min}) \times 60(\text{min/hr}) \times \text{H}(\text{hr/year})]}{[1,000,000 \times 385.5(\text{dscf/lbmol}) \times 2,000(\text{lb/ton})]} = (\text{ton/yr})$$

## **Attachment B**

### **Baseline Concentrations and Calculated Emissions for Each Pollutant and at Each SSI Unit**

FacilityID	UnitID	Unit Type	Existing Control Device	Cd		CO		HCI		Pb		Hg		NOx		PM Filt		PM 2.5		SO2		D/F Total		D/F TEQ	
				mg/dscm	tons/year	ppmvd	tons/year	ppmvd	tons/year	mg/dscm	tons/year	mg/dscm	tons/year	mg/dscm	tons/year	ppmvd	tons/year	mg/dscm	tons/year	mg/dscm	tons/year	ppmvd	tons/year	ng/dscm	tons/year
AKJuneau	1	FB	vs - imp	0.002135	3.10E-04	16.33	2.76	0.1239	0.027	0.011051	1.61E-03	0.013537	1.97E-03	27.926	7.76	12.44	1.81	11.80	1.72	3.3025	1.28	15.96211	2.32E-06	1.31211	1.91E-07
CTMattabassett	1	FB	vs - imp	0.002135	3.10E-04	16.33	2.76	0.1239	0.027	0.011051	1.61E-03	0.013537	1.97E-03	27.926	7.76	12.44	1.81	11.80	1.72	3.3025	1.28	15.96211	2.32E-06	1.31211	1.91E-07
CTSynagroWaterbury	1	FB	vs - imp	0.002135	1.55E-04	16.33	1.38	0.1239	0.014	0.011051	8.03E-04	0.013537	9.84E-04	27.926	3.88	12.44	0.90	11.80	0.86	3.3025	0.64	15.96211	1.16E-06	1.31211	9.54E-08
CTWestHaven	1	FB	vs - imp	0.002135	3.10E-04	16.33	2.76	0.1239	0.027	0.011051	1.61E-03	1.35E-02	1.97E-03	27.93	7.76	12.44	1.81	11.80	1.72	3.3025	1.28	15.962	2.32E-06	1.312	1.91E-07
GANoondayCreek	1	FB	unknown	0.002135	3.10E-04	16.33	2.76	2.4784	0.546	0.011051	1.61E-03	1.50E-02	2.19E-03	27.93	7.76	12.44	1.81	11.80	1.72	66.05	25.56	15.962	2.32E-06	1.312	1.91E-07
IADubuque	1	FB	cs - vs - pbt	0.002135	1.17E-04	16.33	1.04	0.0496	0.004	0.011051	6.05E-04	1.35E-02	7.41E-04	27.93	2.92	12.44	0.68	11.80	0.65	1.321	0.19	15.962	8.73E-07	1.312	7.18E-08
IADubuque	2	FB	cs - vs - pbt	0.002135	1.17E-04	16.33	1.04	0.0496	0.004	0.011051	6.05E-04	1.35E-02	7.41E-04	27.93	2.92	12.44	0.68	11.80	0.65	1.321	0.19	15.962	8.73E-07	1.312	7.18E-08
KSKawPoint	1	FB	vs	0.002135	1.55E-04	16.33	1.38	2.4784	0.273	0.011051	8.03E-04	1.50E-02	1.09E-03	27.93	3.88	12.44	0.90	11.80	0.86	66.05	12.78	15.962	1.16E-06	1.312	9.54E-08
KSKawPoint	2	FB	vs	0.002135	1.55E-04	16.33	1.38	2.4784	0.273	0.011051	8.03E-04	1.50E-02	1.09E-03	27.93	3.88	12.44	0.90	11.80	0.86	66.05	12.78	15.962	1.16E-06	1.312	9.54E-08
LANewOrleansEastBank	1	FB	vs - imp	0.002135	1.55E-04	16.33	1.38	0.1239	0.014	0.011051	8.03E-04	1.35E-02	9.84E-04	27.93	3.88	12.44	0.90	11.80	0.86	3.3025	0.64	15.962	1.16E-06	1.312	9.54E-08
MALynnRegional	1	FB	vs - imp	0.002135	1.55E-04	16.33	1.38	0.1239	0.014	0.011051	8.03E-04	1.35E-02	9.84E-04	27.93	3.88	12.44	0.90	11.80	0.86	3.3025	0.64	15.962	1.16E-06	1.312	9.54E-08
MALynnRegional	2	FB	vs - imp	0.002135	1.55E-04	16.33	1.38	0.1239	0.014	0.011051	8.03E-04	1.35E-02	9.84E-04	27.93	3.88	12.44	0.90	11.80	0.86	3.3025	0.64	15.962	1.16E-06	1.312	9.54E-08
MIYpsilanti	EU-FBSSI	FB	vs-imp - wesp - ac polish.	0.000465	4.08E-05	2.64	0.27	0.2824	0.038	0.006178	5.42E-04	5.67E-04	4.98E-05	29.76	4.99	2.87	0.25	4.83	0.42	3.3025	0.77	0.147	1.29E-08	0.006	5.64E-10
MNSIPaulMetro	FBR1	FB	ac inject. - bag - vs(ad) - wesp	0.000428	1.28E-04	23.46	8.14	0.1671	0.075	0.002876	8.57E-04	1.70E-03	5.06E-04	31.00	17.67	2.26	0.67	1.72	0.51	0.6166	0.49	0.405	1.21E-07	0.036	1.06E-08
MNSIPaulMetro	FBR2	FB	ac inject. - bag - vs(ad) - wesp	0.000747	2.13E-04	23.71	7.88	0.1555	0.067	0.002625	7.50E-04	8.90E-04	2.54E-04	41.44	22.63	1.41	0.40	1.57	0.45	1.6476	1.25	0.406	1.16E-07	0.037	1.05E-08
MNSIPaulMetro	FBR3	FB	ac inject. - bag - vs(ad) - wesp	0.000693	1.87E-04	20.46	6.44	0.2005	0.082	0.002399	6.49E-04	3.87E-04	1.05E-04	22.53	11.65	5.38	1.46	1.45	0.39	1.1321	0.81	0.405	1.10E-07	0.036	9.78E-09
MOLittleBlueValley	1	FB	vs - imp	0.002135	3.10E-04	16.33	2.76	0.1239	0.027	0.011051	1.61E-03	1.35E-02	1.97E-03	27.93	7.76	12.44	1.81	11.80	1.72	3.3025	1.28	15.962	2.32E-06	1.312	1.91E-07
MORockCreek	1	FB	vs - imp	0.002135	3.10E-04	16.33	2.76	0.1239	0.027	0.011051	1.61E-03	1.35E-02	1.97E-03	27.93	7.76	12.44	1.81	11.80	1.72	3.3025	1.28	15.962	2.32E-06	1.312	1.91E-07
NCBuncombeAshville	1	FB	vs - imp	0.002135	3.10E-04	16.33	2.76	0.1239	0.027	0.011051	1.61E-03	1.35E-02	1.97E-03	27.93	7.76	12.44	1.81	11.80	1.72	3.3025	1.28	15.962	2.32E-06	1.312	1.91E-07
NCTZOsborne	ES-1	FB	abd - vs - imp - hss - cs	0.000175	2.83E-05	11.39	2.14	0.0442	0.011	0.000313	5.07E-05	4.11E-02	6.65E-03	14.90	4.61	2.58	0.42	11.16	1.80	7.6433	3.29	15.962	2.58E-06	1.312	2.12E-07
NHManchester	1	FB	vs - imp	0.002135	2.75E-04	16.33	2.45	0.1239	0.024	0.011051	1.42E-03	1.35E-02	1.74E-03	27.93	6.87	12.44	1.60	11.80	1.52	3.3025	1.13	15.962	2.06E-06	1.312	1.69E-07
NJBayshoreRegional	1	FB	vs - imp - wesp	0.000854	1.21E-05	16.33	1.38	0.1239	0.014	0.00442	3.21E-04	1.35E-02	9.84E-04	27.93	3.88	2.49	0.18	2.36	0.17	3.3025	0.64	15.962	1.16E-06	1.312	9.54E-08
NJBayshoreRegional	2	FB	vs - imp - wesp	0.000854	6.21E-05	16.33	1.38	0.1239	0.014	0.00442	3.21E-04	1.35E-02	9.84E-04	27.93	3.88	2.49	0.18	2.36	0.17	3.3025	0.64	15.962	1.16E-06	1.312	9.54E-08
NJCamden	1	FB	vs - imp	0.002135	3.10E-04	16.33	2.76	0.1239	0.027	0.011051	1.61E-03	1.35E-02	1.97E-03	27.93	7.76	12.44	1.81	11.80	1.72	3.3025	1.28	15.962	2.32E-06	1.312	1.91E-07
NJGloucester	1	FB	vs - imp - wesp	0.000854	6.21E-05	16.33	1.38	0.1239	0.014	0.00442	3.21E-04	1.35E-02	9.84E-04	27.93	3.88	2.49	0.18	2.36	0.17	3.3025	0.64	15.962	1.16E-06	1.312	9.54E-08
NJGloucester	2	FB	vs - imp - wesp	0.000854	6.21E-05	16.33	1.38	0.1239	0.014	0.00442	3.21E-04	1.35E-02	9.84E-04	27.93	3.88	2.49	0.18	2.36	0.17	3.3025	0.64	15.962	1.16E-06	1.312	9.54E-08
NJNorthwestBergen	1	FB	vs - imp	0.002135	1.55E-04	16.33	1.38	0.1239	0.014	0.011051	8.03E-04	1.35E-02	9.84E-04	27.93	3.88	12.44	0.90	11.80	0.86	3.3025	0.64	15.962	1.16E-06	1.312	9.54E-08
NJNorthwestBergen	2	FB	vs - imp	0.002135	1.55E-04	16.33	1.38	0.1239	0.014	0.011051	8.03E-04	1.35E-02	9.84E-04	27.93	3.88	12.44	0.90	11.80	0.86	3.3025	0.64	15.962	1.16E-06	1.312	9.54E-08
NJPequanockLincolnFairfield	1	FB	vs - imp	0.002135	1.55E-04	16.33	1.38	0.1239	0.014	0.011051	8.03E-04	1.35E-02	9.84E-04	27.93	3.88	12.44	0.90	11.80	0.86	3.3025	0.64	15.962	1.16E-06	1.312	9.54E-08
NJPequanockLincolnFairfield	2	FB	vs - imp - wesp	0.000854	6.21E-05	16.33	1.38	0.1239	0.014	0.00442	3.21E-04	1.35E-02	9.84E-04	27.93	3.88	2.49	0.18	2.36	0.17	3.3025	0.64	15.962	1.16E-06	1.312	9.54E-08
NJSomersetRaritan	1	FB	vs - imp - wesp	0.000854	1.79E-05	16.33	0.40	0.1239	0.004	0.00442	9.25E-05	1.35E-02	2.83E-04	27.93	1.12	2.49	0.05	2.36	0.05	3.3025	0.18	15.962	3.34E-07	1.312	2.75E-08
NJSomersetRaritan	2	FB	vs - imp - wesp	0.000854	3.65E-05	16.33	0.81	0.1239	0.008	0.00442	1.89E-04	1.35E-02	5.79E-04	27.93	2.28	2.49	0.11	2.36	0.10	3.3025	0.38	15.962	6.83E-07	1.312	5.61E-08
NYArlington	1	FB	unknown	0.002135	4.81E-05	16.33	0.43	2.4784	0.085	0.011051	2.49E-04	1.50E-02	3.39E-04	27.93	1.20	12.44	0.28	11.80	0.27	66.05	3.96	15.962	3.60E-07	1.312	2.96E-08
NYErieCounty	1	FB	vs	0.002135	5.37E-05	16.33	0.48	2.4784	0.094	0.011051	2.78E-04	1.50E-02	3.78E-04	27.93	1.34	12.44	0.31	11.80	0.30	66.05	4.42	15.962	4.01E-07	1.312	3.30E-08
NYErieCounty	2	FB	vs	0.002135	5.37E-05	16.33	0.48	2.4784	0.094	0.011051	2.78E-04	1.50E-02	3.78E-04	27.93	1.34	12.44	0.31	11.80	0.30	66.05	4.42	15.962	4.01E-07	1.312	3.30E-08
NYGlensFalls	1	FB	vs - imp	0.002135	2.12E-04	16.33	1.88	0.1239	0.019	0.011051	1.10E-03	1.35E-02	1.34E-03	27.93	5.29	12.44	1.23	11.80	1.17	3.3025	0.87	15.962	1.58E-06	1.312	1.30E-07
NYOneidaCounty	1	FB	vs - imp	0.002135	1.15E-04	16.33	1.02	0.1239	0.010	0.011051	5.94E-04	1.35E-02	7.28E-04	27.93	2.87	12.44	0.67	11.80	0.63	3.3025	0.47	15.962	8.58E-07	1.312	7.05E-08
NYOneidaCounty	2	FB	vs - imp	0.002135	1.15E-04	16.33	1.02	0.1239	0.010	0.011051	5.94E-04	1.35E-02	7.28E-04	27.93	2.87	12.44	0.67	11.80	0.63	3.3025	0.47	15.962	8.58E-07	1.312	7.05E-08
NYOneidaCounty	3	FB	vs - imp	0.002135	4.92E-06	16.33	0.04	0.1239	0																

FacilityID	UnitID	Unit	Existing Control	Cd	CO	HCl	Pb	Hg	NOx	PM Filt	PM 2.5	SO2	D/F Total	D/F TEQ											
GAUtoyCreek	2	MH	vs - imp	0.044557	4.44E-03	853.95	98.94	0.6546	0.099	0.095711	9.53E-03	1.03E-01	1.02E-02	133.28	25.36	36.09	3.59	21.97	2.19	9.317	2.47	0.695	6.92E-08	0.047	4.66E-09
GAWeyerhaeuser	1	MH	unknown	0.044557	1.78E-02	853.95	397.99	13.093	7.940	0.095711	3.83E-02	1.14E-01	4.58E-02	133.28	102.01	36.09	14.45	21.97	8.80	186.34	198.62	0.695	2.78E-07	0.047	1.87E-08
IA CedarRapid	1	MH	vs - imp	0.044557	1.99E-02	853.95	443.26	0.6546	0.442	0.095711	4.27E-02	1.03E-01	4.59E-02	133.28	113.62	36.09	16.10	21.97	9.80	9.317	11.06	0.695	3.10E-07	0.047	2.09E-08
INBelmontNorth	1	MH	abo - vs - imp	0.044557	2.48E-03	853.95	55.39	0.6546	0.055	0.095711	5.33E-03	1.13E-01	6.30E-03	133.28	14.20	39.79	2.22	21.97	1.22	26.568	9.94	0.695	3.87E-08	0.047	2.61E-09
INBelmontNorth	2	MH	abo - vs - imp	0.044557	6.86E-03	853.95	153.03	0.6546	0.153	0.095711	1.47E-02	1.04E-01	1.61E-02	133.28	39.22	40.31	6.21	21.97	3.38	23.896	9.79	0.695	1.07E-07	0.047	7.21E-09
INBelmontNorth	3	MH	abo - vs - imp	0.044557	2.76E-03	853.95	61.67	0.6546	0.062	0.095711	5.94E-03	1.13E-02	5.67E-03	133.28	15.81	33.85	2.10	21.97	1.36	5.513	0.91	0.695	4.31E-08	0.047	2.90E-09
INBelmontNorth	4	MH	abo - vs - imp	0.044557	7.25E-03	853.95	161.82	0.6546	0.161	0.095711	1.56E-02	1.06E-01	1.73E-02	133.28	41.48	17.55	2.86	21.97	3.58	1.7548	0.76	0.695	1.13E-07	0.047	7.62E-09
INBelmontNorth	5	MH	abo - vs - imp	0.044557	2.69E-03	853.95	59.90	0.6546	0.060	0.095711	5.77E-03	1.04E-01	6.25E-03	133.28	15.35	32.87	1.98	21.97	1.32	14.433	2.32	0.695	4.19E-08	0.047	2.82E-09
INBelmontNorth	6	MH	abo - vs - imp	0.044557	7.15E-03	853.95	159.56	0.6546	0.159	0.095711	1.54E-02	1.04E-01	1.66E-02	133.28	40.90	32.87	1.98	21.97	3.53	14.433	2.17	0.695	1.12E-07	0.047	7.51E-09
INBelmontNorth	7	MH	abo - vs - imp	0.044557	2.60E-03	853.95	57.96	0.6546	0.058	0.095711	5.58E-03	1.04E-01	6.05E-03	133.28	14.86	32.87	1.92	21.97	1.28	14.433	2.24	0.695	4.05E-08	0.047	2.73E-09
INBelmontNorth	8	MH	abo - vs - imp	0.044557	7.07E-03	853.95	157.80	0.6546	0.157	0.095711	1.52E-02	1.04E-01	1.65E-02	133.28	40.45	32.87	5.22	21.97	3.49	14.433	6.10	0.695	1.10E-07	0.047	7.43E-09
LANewOrleansEastBank	2	MH	unknown	0.044557	6.82E-03	853.95	152.12	13.093	3.035	0.095711	1.46E-02	1.14E-01	1.75E-02	133.28	38.99	36.09	5.52	21.97	3.36	186.34	75.92	0.695	1.06E-07	0.047	7.16E-09
MAFitchburgEast	1	MH	vs - wesp - rto	0.017823	4.65E-03	853.95	259.51	13.093	5.178	0.038284	1.00E-02	1.14E-01	2.99E-02	133.28	66.52	7.22	1.88	4.39	1.15	186.34	129.51	0.695	1.81E-07	0.047	1.22E-08
MAUpperBlackstone	1	MH	agr - vs - imp - wesp - rto	0.004217	4.23E-04	27.58	3.22	0.3373	0.051	0.002092	2.10E-04	8.97E-02	9.00E-03	76.38	14.65	1.75	0.18	2.62	0.26	1.2	0.32	0.121	1.21E-08	0.006	6.21E-10
MAUpperBlackstone	Incinerator 3	MH	agr - vs - imp - wesp - rto	0.004075	2.38E-05	59.36	0.40	0.3147	0.003	0.005025	2.93E-05	6.54E-02	3.82E-04	68.52	0.76	1.21	0.01	2.62	0.02	2.6967	0.04	0.121	7.05E-10	0.006	3.61E-11
MDWesternBranch	1	MH	abo - vs - imp	0.044557	2.74E-03	853.95	61.06	0.6546	0.061	0.095711	5.88E-03	1.03E-01	6.32E-03	133.28	15.65	36.09	2.22	21.97	1.35	9.317	1.52	0.695	4.27E-08	0.047	2.88E-09
MDWesternBranch	2	MH	abo - vs - imp	0.044557	2.74E-03	853.95	61.06	0.6546	0.061	0.095711	5.88E-03	1.03E-01	6.32E-03	133.28	15.65	36.09	2.22	21.97	1.35	9.317	1.52	0.695	4.27E-08	0.047	2.88E-09
MIAnnArbor	1	MH	abd - vs - imp	0.044557	1.36E-02	853.95	304.24	0.6546	0.304	0.095711	2.93E-02	1.03E-01	3.15E-02	133.28	77.98	36.09	11.05	21.97	6.72	9.317	7.59	0.695	2.13E-07	0.047	1.43E-08
MI BattleCreek	1	MH	abd - vs - imp	0.044557	6.82E-03	853.95	152.12	0.6546	0.152	0.095711	1.46E-02	1.03E-01	1.58E-02	133.28	38.99	36.09	5.52	21.97	3.36	9.317	3.80	0.695	1.06E-07	0.047	7.16E-09
MI BattleCreek	2	MH	abd - vs - imp	0.044557	6.82E-03	853.95	152.12	0.6546	0.152	0.095711	1.46E-02	1.03E-01	1.58E-02	133.28	38.99	36.09	5.52	21.97	3.36	9.317	3.80	0.695	1.06E-07	0.047	7.16E-09
MI DetroitComplex1	1	MH	vs - imp	0.044557	6.82E-03	853.95	152.12	0.6546	0.152	0.095711	1.46E-02	1.03E-01	1.58E-02	133.28	38.99	36.09	5.52	21.97	3.36	9.317	3.80	0.695	1.06E-07	0.047	7.16E-09
MI DetroitComplex1	2	MH	vs - imp	0.044557	6.82E-03	853.95	152.12	0.6546	0.152	0.095711	1.46E-02	1.03E-01	1.58E-02	133.28	38.99	36.09	5.52	21.97	3.36	9.317	3.80	0.695	1.06E-07	0.047	7.16E-09
MI DetroitComplex1	3	MH	vs - imp	0.044557	6.82E-03	853.95	152.12	0.6546	0.152	0.095711	1.46E-02	1.03E-01	1.58E-02	133.28	38.99	36.09	5.52	21.97	3.36	9.317	3.80	0.695	1.06E-07	0.047	7.16E-09
MI DetroitComplex1	4	MH	vs - imp	0.044557	6.82E-03	853.95	152.12	0.6546	0.152	0.095711	1.46E-02	1.03E-01	1.58E-02	133.28	38.99	36.09	5.52	21.97	3.36	9.317	3.80	0.695	1.06E-07	0.047	7.16E-09
MI DetroitComplex1	5	MH	vs - imp	0.044557	6.82E-03	853.95	152.12	0.6546	0.152	0.095711	1.46E-02	1.03E-01	1.58E-02	133.28	38.99	36.09	5.52	21.97	3.36	9.317	3.80	0.695	1.06E-07	0.047	7.16E-09
MI DetroitComplex1	6	MH	vs - imp	0.044557	6.82E-03	853.95	152.12	0.6546	0.152	0.095711	1.46E-02	1.03E-01	1.58E-02	133.28	38.99	36.09	5.52	21.97	3.36	9.317	3.80	0.695	1.06E-07	0.047	7.16E-09
MI DetroitComplex2	1	MH	hjs - imp	0.445569	6.82E-02	853.95	152.12	0.6546	0.152	0.957109	1.46E-01	1.03E-01	1.58E-02	133.28	38.99	72.19	11.05	43.93	6.72	9.317	3.80	0.695	1.06E-07	0.047	7.16E-09
MI DetroitComplex2	2	MH	hjs - imp	0.445569	6.82E-02	853.95	152.12	0.6546	0.152	0.957109	1.46E-01	1.03E-01	1.58E-02	133.28	38.99	72.19	11.05	43.93	6.72	9.317	3.80	0.695	1.06E-07	0.047	7.16E-09
MI DetroitComplex2	3	MH	hjs - imp	0.445569	6.82E-02	853.95	152.12	0.6546	0.152	0.957109	1.46E-01	1.03E-01	1.58E-02	133.28	38.99	72.19	11.05	43.93	6.72	9.317	3.80	0.695	1.06E-07	0.047	7.16E-09
MI DetroitComplex2	4	MH	hjs - imp	0.445569	6.82E-02	853.95	152.12	0.6546	0.152	0.957109	1.46E-01	1.03E-01	1.58E-02	133.28	38.99	72.19	11.05	43.93	6.72	9.317	3.80	0.695	1.06E-07	0.047	7.16E-09
MI DetroitComplex2	5	MH	hjs - imp	0.445569	6.82E-02	853.95	152.12	0.6546	0.152	0.957109	1.46E-01	1.03E-01	1.58E-02	133.28	38.99	72.19	11.05	43.93	6.72	9.317	3.80	0.695	1.06E-07	0.047	7.16E-09
MI DetroitComplex2	6	MH	hjs - imp	0.445569	6.82E-02	853.95	152.12	0.6546	0.152	0.957109	1.46E-01	1.03E-01	1.58E-02	133.28	38.99	72.19	11.05	43.93	6.72	9.317	3.80	0.695	1.06E-07	0.047	7.16E-09
MI DetroitComplex2	7	MH	hjs - imp	0.445569	6.82E-02	853.95	152.12	0.6546	0.152	0.957109	1.46E-01	1.03E-01	1.58E-02	133.28	38.99	72.19	11.05	43.93	6.72	9.317	3.80	0.695	1.06E-07	0.047	7.16E-09
MI DetroitComplex2	8	MH	hjs - imp	0.445569	6.82E-02	853.95	152.12	0.6546	0.152	0.957109	1.46E-01	1.03E-01	1.58E-02	133.28	38.99	72.19	11.05	43.93	6.72	9.317	3.80	0.695	1.06E-07	0.047	7.16E-09
MI Flint	1	MH	abd - imp	0.445569	6.82E-02	853.95	152.12	0.6546	0.152	0.957109	1.46E-01	1.03E-01	1.58E-02	133.28	38.99	72.19	11.05	43.93	6.72	9.317	3.80	0.695	1.06E-07	0.047	7.16E-09
MI Flint	2	MH	abd - imp	0.445569	6.82E-02	853.95	152.12	0.6546	0.152	0.957109	1.46E-01	1.03E-01	1.58E-02	133.28	38.99	72.19	11.05	43.93	6.72	9.317	3.80	0.695	1.06E-07	0.047	7.16E-09
MI Flint	3	MH	abd - imp	0.445569	6.82E-02	853.95	152.12	0.6546	0.152	0.957109	1.46E-01	1.03E-01	1.58E-02	133.28	38.99	72.19	11.05	43.93	6.72	9.317	3.80	0.695	1.06E-07	0.047	7.16E-09
MI Flint	4	MH	abd - imp	0.445569	6.82E-02	853.95	152.12	0.6546	0.152	0.957109	1.46E-01	1.03E-01	1.58E-02	133.28	38.99	72.19	11.05	43.93	6.72	9.317	3.80	0.695	1.06E-07	0.047	7.16E-09
MI PontiacAuburn	1	MH	vs - imp	0.044557	1.36E-02	853.95	304.24	0.6546	0.304	0.095711	2.93E-02	1.03E-01	3.15E-02	133.28	77.98	36.09	11.05	21.97	6.72	9.317	7.				

FacilityID	UnitID	Unit	Existing Control	Cd	CO	HCl	Pb	Hg	NOx	PM Filt	PM 2.5	SO2	D/F Total	D/F TEQ											
NYNewRochelle	1	MH	abo - vs - imp	0.044557	6.82E-03	853.95	152.12	0.6546	0.152	0.095711	1.46E-02	1.03E-01	1.58E-02	133.28	38.99	36.09	5.52	21.97	3.36	9.317	3.80	0.695	1.06E-07	0.047	7.16E-09
NYNewRochelle	2	MH	abo - vs - imp	0.044557	6.82E-03	853.95	152.12	0.6546	0.152	0.095711	1.46E-02	1.03E-01	1.58E-02	133.28	38.99	36.09	5.52	21.97	3.36	9.317	3.80	0.695	1.06E-07	0.047	7.16E-09
NYNorthwestQuadrant	1	MH	abo - imp	0.445569	1.36E-01	853.95	304.24	0.6546	0.304	0.957109	2.93E-01	1.03E-01	3.15E-02	133.28	77.98	72.19	22.10	43.93	13.45	9.317	7.58	0.695	2.13E-07	0.047	1.43E-08
NYOrangetown	1	MH	vs - imp	0.044557	1.36E-02	853.95	304.24	0.6546	0.304	0.095711	2.93E-02	1.03E-01	3.15E-02	133.28	77.98	36.09	11.05	21.97	6.72	9.317	7.58	0.695	2.13E-07	0.047	1.43E-08
NYOsining	1	MH	vs - imp	0.044557	6.82E-03	853.95	152.12	0.6546	0.152	0.095711	1.46E-02	1.03E-01	1.58E-02	133.28	38.99	36.09	5.52	21.97	3.36	9.317	3.80	0.695	1.06E-07	0.047	7.16E-09
NYOsining	2	MH	vs - imp	0.044557	6.82E-03	853.95	152.12	0.6546	0.152	0.095711	1.46E-02	1.03E-01	1.58E-02	133.28	38.99	36.09	5.52	21.97	3.36	9.317	3.80	0.695	1.06E-07	0.047	7.16E-09
NYScheneectady	1	MH	imp	0.445569	1.36E-01	853.95	304.24	0.6546	0.304	0.957109	2.93E-01	1.03E-01	3.15E-02	133.28	77.98	72.19	22.10	43.93	13.45	9.317	7.58	0.695	2.13E-07	0.047	1.43E-08
NYSouthwestBergenPoint	1	MH	abd - vs - imp	0.044557	1.25E-02	853.95	277.98	0.6546	0.277	0.095711	2.68E-02	1.03E-01	2.88E-02	133.28	71.25	36.09	10.09	21.97	6.14	9.317	6.94	0.695	1.94E-07	0.047	1.31E-08
NYSouthwestBergenPoint	2	MH	abd - vs - imp	0.044557	1.25E-02	853.95	277.98	0.6546	0.277	0.095711	2.68E-02	1.03E-01	2.88E-02	133.28	71.25	36.09	10.09	21.97	6.14	9.317	6.94	0.695	1.94E-07	0.047	1.31E-08
NYTonawanda	1	MH	unknown	0.044557	1.36E-02	853.95	304.24	13.093	6.070	0.095711	2.93E-02	1.14E-01	3.50E-02	133.28	77.98	36.09	11.05	21.97	6.72	186.34	151.83	0.695	2.13E-07	0.047	1.43E-08
OHCanon	1	MH	vs - imp	0.044557	2.74E-03	853.95	61.06	0.6546	0.061	0.095711	5.88E-03	1.03E-01	6.32E-03	133.28	15.65	36.09	2.22	21.97	1.35	9.317	1.52	0.695	4.27E-08	0.047	2.88E-09
OHCanon	2	MH	vs - imp	0.044557	2.74E-03	853.95	61.06	0.6546	0.061	0.095711	5.88E-03	1.03E-01	6.32E-03	133.28	15.65	36.09	2.22	21.97	1.35	9.317	1.52	0.695	4.27E-08	0.047	2.88E-09
OHColumbusSoutherly	1	MH	vs - imp	0.044557	7.60E-03	853.95	169.61	0.6546	0.169	0.095711	1.63E-02	1.03E-01	1.76E-02	133.28	43.48	36.09	6.16	21.97	3.75	9.317	4.23	0.695	1.19E-07	0.047	7.99E-09
OHColumbusSoutherly	2	MH	vs - imp	0.044557	7.60E-03	853.95	169.61	0.6546	0.169	0.095711	1.63E-02	1.03E-01	1.76E-02	133.28	43.48	36.09	6.16	21.97	3.75	9.317	4.23	0.695	1.19E-07	0.047	7.99E-09
OHColumbusSoutherly	3	MH	vs - imp	0.044557	7.60E-03	853.95	169.61	0.6546	0.169	0.095711	1.63E-02	1.03E-01	1.76E-02	133.28	43.48	36.09	6.16	21.97	3.75	9.317	4.23	0.695	1.19E-07	0.047	7.99E-09
OHColumbusSoutherly	4	MH	vs - imp	0.044557	7.60E-03	853.95	169.61	0.6546	0.169	0.095711	1.63E-02	1.03E-01	1.76E-02	133.28	43.48	36.09	6.16	21.97	3.75	9.317	4.23	0.695	1.19E-07	0.047	7.99E-09
OHEuclid	1	MH	abd - vs - imp	0.044557	6.82E-03	853.95	152.12	0.6546	0.152	0.095711	1.46E-02	1.03E-01	1.58E-02	133.28	38.99	36.09	5.52	21.97	3.36	9.317	3.80	0.695	1.06E-07	0.047	7.16E-09
OHEuclid	2	MH	abd - vs - imp	0.044557	6.82E-03	853.95	152.12	0.6546	0.152	0.095711	1.46E-02	1.03E-01	1.58E-02	133.28	38.99	36.09	5.52	21.97	3.36	9.317	3.80	0.695	1.06E-07	0.047	7.16E-09
OHJacksonPike	1	MH	vs - imp	0.044557	5.89E-03	853.95	131.39	0.6546	0.131	0.095711	1.27E-02	1.03E-01	1.36E-02	133.28	33.68	36.09	4.77	21.97	2.90	9.317	3.28	0.695	9.19E-08	0.047	6.19E-09
OHJacksonPike	2	MH	vs - imp	0.044557	5.89E-03	853.95	131.39	0.6546	0.131	0.095711	1.27E-02	1.03E-01	1.36E-02	133.28	33.68	36.09	4.77	21.97	2.90	9.317	3.28	0.695	9.19E-08	0.047	6.19E-09
OHMillCreek	1	MH	vs - imp	0.044557	1.01E-02	853.95	226.15	0.6546	0.226	0.095711	2.18E-02	1.03E-01	2.34E-02	133.28	57.97	36.09	8.21	21.97	5.00	9.317	5.64	0.695	1.58E-07	0.047	1.06E-08
OHMillCreek	2	MH	vs - imp	0.044557	1.01E-02	853.95	226.15	0.6546	0.226	0.095711	2.18E-02	1.03E-01	2.34E-02	133.28	57.97	36.09	8.21	21.97	5.00	9.317	5.64	0.695	1.58E-07	0.047	1.06E-08
OHMillCreek	3	MH	vs - imp	0.044557	1.01E-02	853.95	226.15	0.6546	0.226	0.095711	2.18E-02	1.03E-01	2.34E-02	133.28	57.97	36.09	8.21	21.97	5.00	9.317	5.64	0.695	1.58E-07	0.047	1.06E-08
OHMillCreek	4	MH	vs - imp	0.044557	1.01E-02	853.95	226.15	0.6546	0.226	0.095711	2.18E-02	1.03E-01	2.34E-02	133.28	57.97	36.09	8.21	21.97	5.00	9.317	5.64	0.695	1.58E-07	0.047	1.06E-08
OHMillCreek	5	MH	vs - imp	0.044557	1.01E-02	853.95	226.15	0.6546	0.226	0.095711	2.18E-02	1.03E-01	2.34E-02	133.28	57.97	36.09	8.21	21.97	5.00	9.317	5.64	0.695	1.58E-07	0.047	1.06E-08
OHMillCreek	6	MH	vs - imp	0.044557	1.01E-02	853.95	226.15	0.6546	0.226	0.095711	2.18E-02	1.03E-01	2.34E-02	133.28	57.97	36.09	8.21	21.97	5.00	9.317	5.64	0.695	1.58E-07	0.047	1.06E-08
OHNEORSDSoutherly	1	MH	abo - imp - wesp	0.044557	9.12E-03	853.95	203.54	0.6546	0.203	0.095711	1.96E-02	1.03E-01	2.11E-02	133.28	52.17	7.22	1.48	4.39	0.90	9.317	5.08	0.695	1.42E-07	0.047	9.58E-09
OHNEORSDSoutherly	2	MH	abo - imp - wesp	0.044557	9.12E-03	853.95	203.54	0.6546	0.203	0.095711	1.96E-02	1.03E-01	2.11E-02	133.28	52.17	7.22	1.48	4.39	0.90	9.317	5.08	0.695	1.42E-07	0.047	9.58E-09
OHNEORSDSoutherly	3	MH	abo - imp - wesp	0.044557	9.12E-03	853.95	203.54	0.6546	0.203	0.095711	1.96E-02	1.03E-01	2.11E-02	133.28	52.17	7.22	1.48	4.39	0.90	9.317	5.08	0.695	1.42E-07	0.047	9.58E-09
OHNEORSDSoutherly	4	MH	abo - imp - wesp	0.044557	9.12E-03	853.95	203.54	0.6546	0.203	0.095711	1.96E-02	1.03E-01	2.11E-02	133.28	52.17	7.22	1.48	4.39	0.90	9.317	5.08	0.695	1.42E-07	0.047	9.58E-09
OHNEORSDWesterly	1	MH	abo - vs - imp	0.044557	4.54E-03	853.95	101.20	0.6546	0.101	0.095711	9.75E-03	1.03E-01	1.05E-02	133.28	25.94	36.09	3.68	21.97	2.24	9.317	2.53	0.695	7.08E-08	0.047	4.77E-09
OHNEORSDWesterly	2	MH	abo - vs - imp	0.044557	4.54E-03	853.95	101.20	0.6546	0.101	0.095711	9.75E-03	1.03E-01	1.05E-02	133.28	25.94	36.09	3.68	21.97	2.24	9.317	2.53	0.695	7.08E-08	0.047	4.77E-09
OHWilloughbyEastlake	1	MH	imp	0.445569	1.36E-01	853.95	386.72	0.6546	0.386	0.957109	3.72E-01	1.03E-01	4.01E-02	133.28	99.12	72.19	28.09	43.93	17.09	9.317	9.65	0.695	2.70E-07	0.047	1.82E-08
OHYoungstown	1	MH	abo - vs - imp	0.044557	5.07E-03	853.95	113.08	0.6546	0.113	0.095711	1.09E-02	1.03E-01	1.17E-02	133.28	28.98	36.09	4.11	21.97	2.50	9.317	2.82	0.695	7.91E-08	0.047	5.32E-09
OHYoungstown	2	MH	abo - vs - imp	0.044557	5.07E-03	853.95	113.08	0.6546	0.113	0.095711	1.09E-02	1.03E-01	1.17E-02	133.28	28.98	36.09	4.11	21.97	2.50	9.317	2.82	0.695	7.91E-08	0.047	5.32E-09
PADelawareCountyWestern	1	MH	vs - imp	0.044557	6.82E-03	853.95	152.12	0.6546	0.152	0.095711	1.46E-02	1.03E-01	1.58E-02	133.28	38.99	36.09	5.52	21.97	3.36	9.317	3.80	0.695	1.06E-07	0.047	7.16E-09
PADelawareCountyWestern	2	MH	vs - imp	0.044557	6.82E-03	853.95	152.12	0.6546	0.152	0.095711	1.46E-02	1.03E-01	1.58E-02	133.28	38.99	36.09	5.52	21.97	3.36	9.317	3.80	0.695	1.06E-07	0.047	7.16E-09
PAEastNorritonPlymouthWhitpain	1	MH	cs - vs(ad)	0.044557	1.36E-02	853.95	304.24	0.6546	0.304	0.095711	2.93E-02	1.03E-01	3.15E-02	133.28	77.98	36.09	11.05	21.97	6.72	9.317	7.58	0.695	2.13E-07	0.047	1.43E-08
PAErie	1	MH	vs - wesp	0.017823	2.73E-03	853.95	152.12	13.093	3.035	0.038284	5.86E-03	1.14E-01	1.75E-02	133.28	38.99	7.22	1.10	4.39	0.67	186.34</					

## **Attachment C**

### **Baseline Emission Calculation Inputs**

FacilityID	UnitID	Capacity(dtpH)	Feedrate dtpH	Flow Rate dscfm	OperationalHours
AKJohnMAsplund	1	2.69	2.02	19,458.10	8400
AKJuneau	1	2.26	1.69	9,239.97	8400
CACentralContraCosta	MHF 1	2.50	1.95	23,131.60	4200
CACentralContraCosta	MHF 2	2.50	1.54	22,925.33	4200
CAPaloAlto	1	2.69	2.02	19,458.10	4200
CAPaloAlto	2	2.69	2.02	19,458.10	4200
CTHartford	001	2.50	2.38	17,216.87	6016
CTHartford	002	2.50	2.30	16,359.80	6016
CTHartford	3	2.50	1.88	18,079.69	360
CTMattabassett	1	2.26	1.69	9,239.97	8400
CTNaugatuck	1	2.69	2.02	19,458.10	4200
CTNaugatuck	2	2.69	2.02	19,458.10	4200
CTSynagroNewHaven	1	2.69	2.02	19,458.10	4200
CTSynagroWaterbury	1	2.26	1.69	9,239.97	4200
CTWestHaven	1	2.26	1.69	9,239.97	8400
GANoondayCreek	1	2.26	1.69	9,239.97	8400
GAPresidentStreet	1	0.38	0.29	2,776.52	4200
GAPresidentStreet	2	0.38	0.29	2,776.52	4200
GARLSutton	1	0.25	0.19	1,807.97	4200
GARLSutton	2	0.25	0.19	1,807.97	4200
GARMClayton	1	1.25	0.94	9,039.84	4200
GARMClayton	2	1.25	0.94	9,039.84	4200
GAUtoyCreek	1	1.75	1.31	12,655.78	4200
GAUtoyCreek	2	1.75	1.31	12,655.78	4200
GAWeyerhaeuser	1	3.52	2.64	25,453.62	8400
IACedarRapids	1	3.92	2.94	28,348.95	8400
IADubuque	1	1.70	1.28	6,956.02	4200
IADubuque	2	1.70	1.28	6,956.02	4200
INBelmontNorth	1	2.60	2.03	7,085.00	4200
INBelmontNorth	2	2.60	2.15	19,574.28	4200
INBelmontNorth	3	2.60	2.12	7,888.33	4200
INBelmontNorth	4	2.60	2.09	20,699.23	4200
INBelmontNorth	5	2.00	1.50	7,661.67	4200
INBelmontNorth	6	2.00	1.50	20,409.96	4200
INBelmontNorth	7	2.00	1.50	7,413.33	4200
INBelmontNorth	8	2.00	1.50	20,184.97	4200
KSKawPoint	1	2.26	1.69	9,239.97	4200
KSKawPoint	2	2.26	1.69	9,239.97	4200
LANewOrleansEastBank	1	2.26	1.69	9,239.97	4200
LANewOrleansEastBank	2	2.69	2.02	19,458.10	4200
MAFitchburgEast	1	2.30	1.72	16,597.15	8400
MALynnRegional	1	2.26	1.69	9,239.97	4200
MALynnRegional	2	2.26	1.69	9,239.97	4200
MAUpperBlackstone	1	3.00	1.79	6,271.00	8544
MAUpperBlackstone	Incinerator 3	3.00	1.96	14,421.33	216
MDWesternBranch	1	1.08	0.81	7,810.43	4200
MDWesternBranch	2	1.08	0.81	7,810.43	4200
MIAnnArbor	1	2.69	2.02	19,458.10	8400
MIBattleCreek	1	2.69	2.02	19,458.10	4200
MIBattleCreek	2	2.69	2.02	19,458.10	4200
MIDetroitComplex1	1	2.69	2.02	19,458.10	4200
MIDetroitComplex1	2	2.69	2.02	19,458.10	4200
MIDetroitComplex1	3	2.69	2.02	19,458.10	4200
MIDetroitComplex1	4	2.69	2.02	19,458.10	4200
MIDetroitComplex1	5	2.69	2.02	19,458.10	4200
MIDetroitComplex1	6	2.69	2.02	19,458.10	4200
MIDetroitComplex2	1	2.69	2.02	19,458.10	4200

FacilityID	UnitID	Capacity(dtpH)	Feedrate dtpH	Flow Rate dscfm	OperationalHours
MIDetroitComplex2	2	2.69	2.02	19,458.10	4200
MIDetroitComplex2	3	2.69	2.02	19,458.10	4200
MIDetroitComplex2	4	2.69	2.02	19,458.10	4200
MIDetroitComplex2	5	2.69	2.02	19,458.10	4200
MIDetroitComplex2	6	2.69	2.02	19,458.10	4200
MIDetroitComplex2	7	2.69	2.02	19,458.10	4200
MIDetroitComplex2	8	2.69	2.02	19,458.10	4200
MIFlint	1	2.69	2.02	19,458.10	4200
MIFlint	2	2.69	2.02	19,458.10	4200
MIFlint	3	2.69	2.02	19,458.10	4200
MIFlint	4	2.69	2.02	19,458.10	4200
MIPontiacAuburn	1	2.69	2.02	19,458.10	8400
MIWarren	1	2.69	2.02	19,458.10	8400
MIYpsilanti	EU-FBSSI	3.46	2.85	14,465.29	3240
MNSeneca	Incinerator 1	1.58	1.34	16,607.25	4000
MNSeneca	Incinerator 2	1.58	1.42	15,605.93	4000
MNStPaulMetro	FBR1	5.42	4.19	21,897.67	7270
MNStPaulMetro	FBR2	5.42	3.94	20,984.05	7270
MNStPaulMetro	FBR3	5.42	3.76	19,858.57	7270
MOBigBlueRiver	1	2.69	2.02	19,458.10	4200
MOBigBlueRiver	2	2.69	2.02	19,458.10	4200
MOBigBlueRiver	3	2.69	2.02	19,458.10	360
MOBissellPoint	1	2.69	2.02	19,458.10	4200
MOBissellPoint	2	2.69	2.02	19,458.10	4200
MOBissellPoint	3	2.69	2.02	19,458.10	4200
MOBissellPoint	4	2.69	2.02	19,458.10	4200
MOBissellPoint	5	2.69	2.02	19,458.10	4200
MOBissellPoint	6	2.69	2.02	19,458.10	4200
MOEmay	1	2.69	2.02	19,458.10	4200
MOEmay	2	2.69	2.02	19,458.10	4200
MOEmay	3	2.69	2.02	19,458.10	4200
MOEmay	4	2.69	2.02	19,458.10	4200
MOLittleBlueValley	1	2.26	1.69	9,239.97	8400
MORockCreek	1	2.26	1.69	9,239.97	8400
NCBuncombeAshville	1	2.26	1.69	9,239.97	8400
NCRockyRiver	1	2.97	2.23	21,464.21	8400
NCTZOsborne	ES-1	3.25	2.42	10,281.48	8400
NHManchester	1	2.00	1.50	8,183.55	8400
NJAtlanticCounty	1	2.69	2.02	19,458.10	4200
NJAtlanticCounty	2	2.69	2.02	19,458.10	4200
NJBayshoreRegional	1	2.26	1.69	9,239.97	4200
NJBayshoreRegional	2	2.26	1.69	9,239.97	4200
NJCamden	1	2.26	1.69	9,239.97	8400
NJGloucester	1	2.26	1.69	9,239.97	4200
NJGloucester	2	2.26	1.69	9,239.97	4200
NJMountainView	#1	0.79	0.80	7,697.93	2715
NJMountainView	#2	0.79	0.80	9,267.18	2715
NJNorthwestBergen	1	2.26	1.69	9,239.97	4200
NJNorthwestBergen	2	2.26	1.69	9,239.97	4200
NJParsippanyTroyHills	1	2.69	2.02	19,458.10	4200
NJParsippanyTroyHills	2	2.69	2.02	19,458.10	4200
NJPequannockLincolnFairfield	1	2.26	1.69	9,239.97	4200
NJPequannockLincolnFairfield	2	2.26	1.69	9,239.97	4200
NJSomersetRaritan	1	0.65	0.49	2,659.65	4200
NJSomersetRaritan	2	1.33	1.00	5,438.65	4200



FacilityID	UnitID	Capacity(dtpH)	Feedrate dtpH	Flow Rate dscfm	OperationalHours
OHNEORSDWesterly	1	1.79	1.34	12,945.06	4200
OHNEORSDWesterly	2	1.79	1.34	12,945.06	4200
OHWilloughbyEastlake	1	3.42	2.57	24,733.01	8400
OHYoungstown	1	2.00	1.50	14,463.75	4200
OHYoungstown	2	2.00	1.50	14,463.75	4200
PAAlleghenyCounty	001	3.25	1.88	10,256.72	8400
PAAlleghenyCounty	002	3.25	1.88	10,256.72	8400
PADelawareCountyWester n	1	2.69	2.02	19,458.10	4200
PADelawareCountyWester n	2	2.69	2.02	19,458.10	4200
PAEastNorritonPlymouthW hitpain	1	2.69	2.02	19,458.10	8400
PAErie	1	2.69	2.02	19,458.10	4200
PAErie	2	2.69	2.02	19,458.10	4200
PAHatfield	1	2.69	2.02	19,458.10	8400
PAKiskiValley	1	2.69	2.02	19,458.10	8400
PAUpperMorelandHatboro	1	2.69	2.02	19,458.10	8400
PAWyomingValley	1	2.26	1.69	9,239.97	8400
PRPuertoNuevo	1	2.26	1.69	9,239.97	8400
RICranston	1	0.95	0.71	6,863.39	4200
RICranston	2	1.98	1.48	14,310.50	4200
RINewEngland	1	2.69	2.02	19,458.10	8400
SCColumbiaMetro	1	1.08	0.89	4,620.17	7300
SCColumbiaMetro	2	1.08	0.68	5,144.67	7300
SCFelixCDavis	1	2.26	1.69	9,239.97	8400
SCPlumIsland	1	2.69	2.02	19,458.10	8400
VAArmyBaseNorfolk	1	1.50	0.82	8,455.33	4200
VAArmyBaseNorfolk	2	1.50	1.13	10,847.81	4200
VABlacksburg	1	2.26	1.69	9,239.97	8400
VABoatHarbor	1	1.79	1.64	11,399.17	4200
VABoatHarbor	2	1.79	1.34	12,957.11	4200
VACHesapeakeElizabeth	1	1.50	1.12	7,908.33	4200
VACHesapeakeElizabeth	2	1.50	1.13	10,847.81	4200
VAHLMooney	2	2.26	1.69	9,239.97	8400
VAHopewell	1	2.69	2.02	19,458.10	8400
VANomanCole	1	1.88	1.41	13,559.77	4200
VANomanCole	2	1.88	1.41	13,559.77	4200
VANomanCole	3	3.83	2.88	27,722.19	4200
VANomanCole	4	3.83	2.88	27,722.19	4200
VANomanCole	5	1.58	1.19	11,450.47	4200
VANomanCole	6	1.58	1.19	11,450.47	4200
VAVirginiaInitiative	1	1.88	2.08	16,866.67	4200
VAVirginiaInitiative	2	1.88	1.41	13,559.77	4200
VAWilliamsburg	1	1.96	1.55	6,500.56	4200
VAWilliamsburg	2	1.96	1.47	14,162.42	4200
WAAnacortes	1	2.26	1.69	9,239.97	8400
WABellinghamPostPoint	1	2.69	2.02	19,458.10	4200
WABellinghamPostPoint	2	2.69	2.02	19,458.10	4200
WAEdmonds	1	2.26	1.69	9,239.97	8400
WALynnwood	1	2.26	1.69	9,239.97	8400
WAVestside	1	2.42	1.81	9,888.46	8400
WIGreenBayMetro	1	1.23	0.92	8,909.67	4200
WIGreenBayMetro	2	1.23	0.92	8,909.67	4200

**UNITED STATES DISTRICT COURT FOR THE DISTRICT OF COLUMBIA**

_____ )	
SIERRA CLUB )	Case No. 1:01CV01537
)	
Plaintiff, )	(consolidated with
)	Case No. 1:01CV01548
v. )	Case No. 1:01CV01558
)	Case No. 1:01CV01569
LISA P. JACKSON, <sup>1</sup> Administrator, )	Case No. 1:01CV01578
U.S. Environmental Protection Agency, )	Case No. 1:01CV01582
)	Case No. 1:01CV01597)
Defendant. )	
)	Judge Paul L. Friedman
_____ )	

**[PROPOSED] ORDER**

Upon consideration of Defendant's motion to amend Order of March 31, 2006 and the memoranda in support of and opposition thereto, it is hereby

ORDERED that Defendant's motion is DENIED.

Executed this \_\_\_ day of \_\_\_\_\_, 2011,

\_\_\_\_\_  
HON. PAUL L. FRIEDMAN  
UNITED STATES DISTRICT JUDGE

\_\_\_\_\_  
<sup>1</sup> Under Rule 25(d)(1), current Administrator Lisa P. Jackson is automatically substituted for former Administrator Stephen L. Johnson.

01268-EPA-923

Diane  
Thompson/DC/USEPA/US  
12/30/2010 02:32 PM

To Richard Windsor  
cc Bob Perciasepe  
bcc

Subject Fw: An overview of the Econ Guidelines

Here is the summary of the new economic guidelines you asked Lisa H for on her last days. I included  
(b) (5) Deliberative

DT

\*\*\*\*\*

Diane E. Thompson  
Chief of Staff  
U. S. Environmental Protection Agency  
202-564-6999

----- Forwarded by Diane Thompson/DC/USEPA/US on 12/30/2010 02:29 PM -----

From: Al McGartland/DC/USEPA/US  
To: Diane Thompson/DC/USEPA/US@EPA  
Cc: Bob Perciasepe/DC/USEPA/US@EPA, Ann Campbell/DC/USEPA/US@EPA, Christopher Busch/DC/USEPA/US@EPA  
Date: 12/30/2010 02:24 PM  
Subject: Re: An overview of the Econ Guidelines

Thanks Diane. I added a paragraph on process.

(b) (5)  
Deliberative

summary of econ guidelines 2.doc

(b) (5) Deliberative

[Redacted]

[Redacted]

[Redacted]

Re: An overview of the Econ Guidelines

**Re: An overview of the Econ Guidelines** 

**Diane Thompson** to: Al McGartland

12/30/2010 11:26 AM

Cc: Bob Perciasepe

Al,  
Thank you for this. I am copying Bob on this so he has an opportunity to look at this. (b) (5) Deliberative

[Redacted]

[Redacted]

[Redacted]

Thanks and happy new year.  
Diane

\*\*\*\*\*

Diane E. Thompson  
Chief of Staff  
U. S. Environmental Protection Agency  
202-564-6999

Al McGartland Hello Diane and Ann. Here is my write... 12/19/2010 11:01:19 PM

From: Al McGartland/DC/USEPA/US  
To: Diane Thompson/DC/USEPA/US@EPA  
Cc: Ann Campbell/DC/USEPA/US@EPA  
Date: 12/19/2010 11:01 PM  
Subject: An overview of the Econ Guidelines

Hello Diane and Ann. Here is my write up on the Econ Guidelines.

(b) (5) Deliberative  
[Redacted]

[Redacted]. If this is too long, please let me know.

Hope you all had a nice weekend.

I have a large amount of "use or lose" annual leave. I am scheduled for annual leave this week. So I will be home. But if you need me for anything, do not hesitate to call or email. My cell phone is

**(b) (6) Privacy**

[attachment "summary of econ guidelines.doc" deleted by AI McGartland/DC/USEPA/US]

01268-EPA-932

Cynthia  
Giles-AA/DC/USEPA/US  
01/08/2011 04:10 PM

To Richard Windsor  
cc Bob Perciasepe, Aaron Dickerson  
bcc  
Subject OECA HIT

OECA Hot issues tracker attached.

(b) (5) Deliberative, (b)  
(5) Attorney Client, (b)

OECA HITList 1-8-11.doc

Cynthia Giles  
Assistant Administrator  
U.S. EPA, Office of Enforcement and Compliance Assurance  
1200 Pennsylvania Avenue, N.W.  
Washington, D.C. 20460  
202-564-2440

THIS MESSAGE IS CONFIDENTIAL and may contain legally privileged information. If you receive it in error, please delete it immediately, do not copy, and notify the sender. Thank you.

01268-EPA-933

**Gilberto  
Irizarry/DC/USEPA/US**  
01/10/2011 08:18 PM

To Debbie Dietrich, Barry Breen, Mathy Stanislaus, Seth Oster, Adora Andy, Marsha Minter, Lisa Feldt, Dana Tulis, Bob Perciasepe, Diane Thompson  
cc Mark Mjones, Craig Matthiessen, Kim Jennings, Dana Stalcup, Kathy Jones, Ellyn Fine, Bill Finan, Epahq Eoc, Sheila Kelly, Tim Grier, Lisa Boynton, David Chung, Kevin Mould, Jan Shubert, Eugene Lee, Sherry Fielding, Janine Dinan, Antoinette Powell-Dickson, George Hull, Dale Perry, Richard Rupert, Brendan Gilfillan, "Andra Belknap"  
bcc Richard Windsor  
Subject Pollution Report # (Initial)1 Alyeska Pump Sta 1 Spill - Alyeska Pipeline Service Co. Pump Station 1 Booster Pump

FYI, see below the Regional PolRep (Pollution Report) for the subject situation.

Please be aware that we (OEM/EOC) are coordinating with R10 to establish a good battle rhythm of reports to ensure good and continuous situational awareness for HQ senior leadership.

We'll continue to report on progress.

Tito

-----  
Sent by Blackberry. Please excuse typos.

Gilberto "Tito" Irizarry  
Director, Prog. Ops & Coordination Division  
Office of Emergency Management  
US Environmental Protection Agency - HQ  
O: (202) 564-7982  
C: (202) 821-8138  
Eugene Lee

----- Original Message -----

**From:** Eugene Lee  
**Sent:** 01/10/2011 08:09 PM EST  
**To:** Gilberto Irizarry  
**Subject:** Fw: Pollution Report # (Initial)1 Alyeska Pump Sta 1 Spill - Alyeska Pipeline Service Co. Pump Station 1 Booster Pump  
Tito - This polrep just received from R10. Of note, R10 has 4 OSCs currently engaged in this response (2 in Prudhoe Bay and 2 in Fairbanks), 1 PIO (Fairbanks) and 6 START contractors supporting the response. A request for an increase of \$200K to the current \$50K funding ceiling is anticipated.

Eugene

----- Forwarded by Eugene Lee/DC/USEPA/US on 01/10/2011 08:07 PM -----

**Pollution Report # (Initial)1 Alyeska Pump Sta 1 Spill - Alyeska Pipeline Service Co. Pump Station 1 Booster Pump**

Matthew Carr, Robert Whittier, Imarcus, vmelde, Richard Franklin, Earl Liverman, Jeffrey Fowlow, amaguire, Calvin Terada, Chris Field, Dan Opalski, Lori Cohen, Marcia Combes, Eugene Lee, Stephanie Mairs, ruth.yender, Gregory.W.Buie, Adam Bilodeau, bvasser, Mark

**Matthew Carr**

to: Lee, Stephanie Mairs, ruth.yender, Gregory.W.Buie, Adam Bilodeau, bvasser, Mark

01/10/2011 07:58 PM

Macintyre, Epahq Eoc, Wally Moon,  
Gary.Shigenaka, MarkW Howard, Gilberto  
Irizarry, ARL-PF-NPFCEPAPOLREPS

---

Attached is a Pollution Report (POLREP) regarding:

USEPA Region X  
Alyeska Pump Sta 1 Spill  
Deadhorse, AK

To view this POLREP, please open the attachment.  
Lotus Notes Users, please Launch the attachment.

For additional information regarding this site,  
please visit the website by clicking on this link:  
<http://www.epaos.org/AlyeskaPumpSta1>



AlyeskaPumpSta1\_polrep\_1.htm

U.S. ENVIRONMENTAL PROTECTION AGENCY  
POLLUTION/SITUATION REPORT  
Alyeska Pump Sta 1 Spill - Removal Polrep



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
Region X**

**Subject: POLREP #1  
Alyeska Pipeline Service Co. Pump Station 1 Booster Pump  
Alyeska Pump Sta 1 Spill**

**Deadhorse, AK  
Latitude: 64.8988518 Longitude: -147.6097226**

**To:** Matthew Carr, EPA Region 10 (POLREP List)  
Robert Whittier, ERU (POLREP List)  
Len Marcus, EnE START Anchorage  
Vivian Melde, EnE START Anchorage  
Richard Franklin, Oregon Operations Office  
Earl Liverman, EPA Region 10 (POLREP List)  
Jeffrey Fowlow, EPA Region 10 (POLREP List)  
Andy Maguire, EnE START  
Calvin Terada, EPA Region 10 (POLREP List)  
Chris Field, EPA Region 10 (POLREP List)  
Dan Opalski, EPA Region 10 (POLREP List)  
Lori Cohen, EPA Region 10 (POLREP List)  
Marcia Combes, EPA Region 10 (POLREP List)  
Eugene Lee, EPA HQ (POLREP List)  
Stephanie Mairs, EPA Region 10 (POLREP List)  
Ruth Yender, NOAA (POLREP LIST)  
Greg Buie, NPFC (POLREP List)  
Adam Bilodeau, US EPA - SCI Contractor(POLREP LIST)  
Bryan Vasser, EnE START  
Mark Macintyre, EPA Region 10 (POLREP List)  
EPA HQ, EPA HQ (POLREP List)  
Wally Moon, EPA Region 10 (POLREP List)  
Gary Shigenaka, NOAA (POLREP list)  
Mark Howard, U.S. EPA/OEM  
Tito Irizarry, OSWER/OEM  
Polrep Reporting EPA, NPFC (POLREP List)  
Bryce Robbert, EnE START  
Daniel Wright, EnE START  
Liza Sanden, EnE START Anchorage

**From:** Matt Carr, On-Scene Coordinator

**Date:** 1/10/2011

**Reporting Period:** 01/08/2011 to 01/09/2011

## 1. Introduction

### 1.1 Background

<b>Site Number:</b>		<b>Contract Number:</b>	
<b>D.O. Number:</b>		<b>Action Memo Date:</b>	
<b>Response Authority:</b>	CWA	<b>Response Type:</b>	Time-Critical
<b>Response Lead:</b>	PRP	<b>Incident Category:</b>	Removal Assessment
<b>NPL Status:</b>		<b>Operable Unit:</b>	
<b>Mobilization Date:</b>	1/8/2011	<b>Start Date:</b>	1/8/2011
<b>Demob Date:</b>		<b>Completion Date:</b>	
<b>CERCLIS ID:</b>		<b>RCRIS ID:</b>	
<b>ERNS No.:</b>		<b>State Notification:</b>	
<b>FPN#:</b>	E11002	<b>Reimbursable Account #:</b>	

#### 1.1.1 Incident Category

**Not applicable because the POLREP addresses the threat of discharge of oil.**

#### 1.1.2 Site Description

##### 1.1.2.1 Location

The Alyeska Pipeline Service Company (Alyeska) Pump Station 1 (PS01) is located approximately 4.5 miles south of Prudhoe Bay and is north of Deadhorse, North Slope Borough, Alaska, the northern terminus of the James Dalton Highway (70°15'26.24" latitude, 148°37'08.70" longitude). PS01 receives and meters oil from the producers, and PS01 is also a pig launching/receiving facility.

There are no developed or designated public recreation facilities located in the vicinity of PS01. Dispersed recreation by travelers on the Dalton Highway includes bird and wildlife watching and nature photography.

##### 1.1.2.2 Description of Threat

On 8 January 2011, personnel at PS01 discovered crude oil leaking into the station's booster pump building from a section of piping at the station that is encased in concrete adjacent to the building. Approximately 10 barrels of oil have been recovered from the basement. It is unknown whether any crude oil was discharged from the basement to the surrounding environment.

There is a substantial threat of discharge of oil from PS01 in harmful quantities into navigable waters of the United States or adjoining shorelines. PS01 is located in coastal arctic tundra. The Putuligayuk River, which flows into Prudhoe Bay, is adjacent to PS01.

The Putuligayuk River is classified as an anadromous fish stream at its lower end (about 2 miles from PS01). Caribou may be found in the area throughout the year and waterfowl nesting may occur on any pond or lake. The spectacled eider, a bird listed as a threatened species under the Endangered Species Act, is found in the marine and

### **1.1.3 Preliminary Removal Assessment/Removal Site Inspection Results**

On 8 January 2011, personnel at PS01 discovered oil leaking into the station's booster pump building from a section of 42-inch piping which is encased in concrete and located underground, adjacent to the building. The Alyeska Operations Control Center (OCC) shut down the Trans Alaska Pipeline System (TAPS) at approximately 0850 hrs on January 8. The Alyeska Fairbanks Incident Management Team and Fairbanks Emergency Operations Center (FEOC) were activated. The booster pumps were isolated and at approximately 1600 hrs work crews began recovering oil from the booster pump room basement. It is unknown whether any crude oil was discharged from the basement to the surrounding environment. The OCC curtailed North Slope crude oil production to 5 percent of normal production. At this reduced rate, Alyeska estimates that there is approximately 8 days of tankage available at PS01.

## **2. Current Activities**

### **2.1 Operations Section**

#### **2.1.1 Narrative**

##### **2.1.1.1 Current Situation**

During January 8<sup>th</sup> and 9<sup>th</sup>, two 320 barrel vacuum trucks recovered approximately 9 to 10 barrels (bbls) of crude oil from the booster pump building basement, and work crews are continuing to recover oil from the basement. A contamination assessment plan (CAP) is undergoing review by Unified Command (UC). PS01 is constructed on a pad of sandy gravel fill material and the purpose of the CAP is to delineate any crude oil contamination present in the gravel pad.

Extensive efforts are underway to repair and re-route piping and to re-start the pipeline. Plans are being finalized to isolate the buried piping and install 160 feet of 24-inch bypass piping and to disconnect, drain, and seal off the pipe being bypassed. Additionally, Alyeska is considering implementation of a Cold Restart Plan which was developed to mitigate any potential issues with restarting the pipeline due to cold temperatures and the shutdown duration.

#### **2.1.2 Response Actions to Date**

Refer to Subsection 2.1.1.1.

#### **2.1.3 Enforcement Activities, Identity of Potentially Responsible Parties (PRPs)**

The EPA has initially determined that Alyeska is the owner, operator, or person in charge of the facility which is the source of the above referenced potential threat of discharge of oil in harmful quantities into a navigable water of the United States, or adjoining shoreline, as defined in Section 311 of the Clean Water Act (CWA), 33 U.S.C. § 1321, as amended by the Oil Pollution Act (OPA) of 1990, 33 U.S.C. 2701 et seq.

#### **2.1.4 Progress Metrics**

<b>Waste Stream</b>	<b>Medium</b>	<b>Quantity</b>	<b>Manifest #</b>	<b>Treatment</b>	<b>Disposal</b>
Crude Oil	Liquid	420 gals		None	Recycled

## 2.2 Planning Section

### 2.2.1 Anticipated Activities

#### 2.2.1.1 Planned Response Activities

Refer to Subsection 2.1.1.1.

#### 2.2.1.2 Next Steps

Refer to Subsection 2.1.1.1 and Subsection 2.5.

### 2.2.2 Issues

None.

## 2.3 Logistics Section

### 2.3 Logistics

The responsible party has adequate resources including equipment, materials, and personnel. Other resources are deployed as appropriate or necessary.

## 2.4 Finance Section

### 2.4.1 Narrative

A Federal Project Number (FPN) has been assigned by the National Pollution Funds Center with an initial funding ceiling of \$50,000. Of this amount, \$25,000 was allocated to EPA and \$25,000 was allocated to START. The initial funding ceiling will require an increase of approximately **\$200,000** to accommodate the anticipated needs of the response.

## 2.5 Safety Officer

On 8 January 2010, the Site health and safety plan was finalized and signed by all personnel involved with field work at PS01. Daily safety briefings are conducted. A Traffic Control Plan is being prepared to guide traffic working at PS01 while recovering crude oil and repairing and re-routing piping.

## 2.6 Liaison Officer

An Alyeska Liaison Officer has been designated and is available to assist the Alyeska Incident Commander with ensuring that government agencies are kept informed of the incident should the need arise.

## 2.7 Information Officer

### 2.7.1 Public Information Officer

**A Joint Information Center (JIC) consisting of USEPA, ADEC, and Alyeska was established to provide timely, useful, and accurate information to the public and other stakeholders. To date, the JIC has prepared three fact sheets and 3 news releases.**

### 2.7.2 Community Involvement Coordinator

None.

## 3. Participating Entities

### 3.1 Unified Command

Unified Command has been established and consists of US EPA, Alaska Department of Environmental Conservation, and the Alyeska Pipeline Service Company.

### 3.2 Cooperating and Assisting Agencies

The Bureau of Land Management is providing the Deputy Federal On Scene Coordinator for this response. The Pipeline and Hazardous Materials Safety Administrative is providing technical specialists in support of this incident.

## 4. Personnel On Site

<b>EPA Personnel</b>	<b>START (E&amp;E) Personnel</b>
2 – OSCs (Fairbanks)	2 – Anchorage
1 – PIO (Fairbanks)	2 – Fairbanks
2 – OSCs (Prudhoe Bay)	2 – Prudhoe Bay

## **5. Definition of Terms**

A "barrel" (bbl) of crude oil is defined as 42 US gallons.

"Pig," as used in Section 1.1.2.1, is defined as a scraping tool that is forced through a pipeline or flow line to clean out accumulations of wax, scale, and debris from the walls of the pipe it travels with the flow of product in the line, cleaning the pipe walls by means of blades or brushes affixed to it.

## **6. Additional sources of information**

### **6.1 Internet location of additional information/reports**

For additional information, please refer to "Documents" on [www.epaos.org/AlyeskaPumpSta1](http://www.epaos.org/AlyeskaPumpSta1)

### **6.2 Reporting Schedule**

The next POLREP will be submitted on January 11, 2011.

## **7. Situational Reference Materials**

01268-EPA-934

**Scott Fulton/DC/USEPA/US**

01/11/2011 03:11 PM

To Richard Windsor, Bob Perciasepe

cc Arvin Ganesan, David McIntosh, Diane Thompson

bcc

Subject Fw: OIG Special Report: "Congressionally Requested Inquiry Into EPA's Handling of Freedom of Information Act Requests"

Fyi -- Concludes that the Agency's management of the FOIA process has not been politicized, as suggested by Grassley and Issa. Note the following quote from the report:

Our analysis shows that political appointees at EPA are generally not involved in processing, screening, or approving FOIA requests. Even though our sample included only requests related to controversial subjects, political appointees were involved with 7 of the 50 instances reviewed. The activities of political appointees in the FOIA process at EPA generally include signing denials and partial denials, and receiving reports on FOIA processing. We found no evidence of systematic screening of FOIA requests by political appointees. Based on our review of their program, we conclude that the EPA does not have a process to filter FOIA requests by political appointees.

----- Forwarded by Scott Fulton/DC/USEPA/US on 01/11/2011 03:06 PM -----

From: News OIG/OIG/USEPA/US  
To: Malcolm Jackson/DC/USEPA/US@EPA  
Cc: Patricia Gilchriest/DC/USEPA/US@EPA, Diane Bazzle/DC/USEPA/US@EPA, Barbara Bennett/DC/USEPA/US@EPA, Deborah Rutherford/DC/USEPA/US@EPA, Scott Fulton/DC/USEPA/US@EPA, David McIntosh/DC/USEPA/US@EPA, Seth Oster/DC/USEPA/US@EPA, Janet Woodka/DC/USEPA/US@EPA, Arthur Elkins/OIG/USEPA/US@EPA, Larry Gottesman/DC/USEPA/US@EPA, Jeffrey Worthington/DC/USEPA/US@EPA, Patrick Huber/DC/USEPA/US@EPA, Jonathan Newton/DC/USEPA/US@EPA  
Date: 01/11/2011 10:21 AM  
Subject: OIG Special Report: "Congressionally Requested Inquiry Into EPA's Handling of Freedom of Information Act Requests"

Attached is the EPA Office of Inspector General (OIG) special report, *Congressionally Requested Inquiry Into EPA's Handling of Freedom of Information Act Requests* (Report No. 11-P-0063).



20110110-11-P-0063\_cert.pdf

Because this report contains no recommendations, you are not required to respond to this report.

The report will be made available to the public on the OIG's website tomorrow, January 12, after 12 p.m. The location of the report will be <http://www.epa.gov/oig/reports/2011/20110110-11-P-0063.pdf>.



U.S. ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF INSPECTOR GENERAL

*Catalyst for Improving the Environment*

## Special Report

# Congressionally Requested Inquiry Into EPA's Handling of Freedom of Information Act Requests

Report No. 11-P-0063

January 10, 2011

**Report Contributors:**

Christine Baughman  
Allison Dutton  
Ryan Patterson  
Russell Moore  
Elizabeth Grossman  
Eric Lewis

**Abbreviations**

EPA	U.S. Environmental Protection Agency
FOIA	Freedom of Information Act
OIG	Office of Inspector General



**U.S. Environmental Protection Agency  
Office of Inspector General**

11-P-0063  
January 10, 2011

# At a Glance

*Catalyst for Improving the Environment*

## Why We Did This Review

Two members of Congress asked the Inspector General to review how the U.S. Environmental Protection Agency (EPA) handles requests under the Freedom of Information Act (FOIA). They were particularly interested in whether and, if so, the extent to which political appointees are made aware of information requests and have a role in request reviews or decisionmaking.

## Background

FOIA gives the public the right to ask for records possessed by federal government agencies. Under EPA regulations, the head of an office, or that individual's designee, is authorized to grant or deny any request for EPA records. The heads of EPA's 23 major offices are political appointees.

For further information, contact our Office of Congressional, Public Affairs and Management at (202) 566-2391.

The full report is at:  
[www.epa.gov/oig/reports/2011/20110110-11-P-0063.pdf](http://www.epa.gov/oig/reports/2011/20110110-11-P-0063.pdf)

## ***Congressionally Requested Inquiry Into EPA's Handling of Freedom of Information Act Requests***

### **What We Found**

We concluded that EPA does not have a process to filter FOIA requests by political appointees. EPA policy permits releasing information at the lowest practicable level. Generally, political appointees are not involved in deciding FOIA requests, unless there is denial of information. We found exceptions, but political appointees were usually involved only to sign denials or partial denials. FOIA coordinators provided regular status reports on the processing of FOIA requests to managers at various levels within the office. In 3 of the 11 offices we reviewed, those managers were political appointees. However, none of the offices required routine review of FOIA requests by a political appointee.

In response to comments from EPA staff on the draft report, we made some minor wording changes.



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, D.C. 20460

OFFICE OF  
INSPECTOR GENERAL

January 10, 2011

**MEMORANDUM**

**SUBJECT:** Congressionally Requested Inquiry into EPA's Handling of  
Freedom of Information Act Requests  
Report No. 11-P-0063

**FROM:** Wade T. Najjum  
Assistant Inspector General for Program Evaluation

A handwritten signature in black ink, appearing to read "Wade T. Najjum".

**TO:** Malcolm D. Jackson  
Assistant Administrator for Environmental Information and  
Chief Information Officer

This is our report on the subject review conducted by the Office of Inspector General (OIG) of the U.S. Environmental Protection Agency (EPA). This report contains findings that describe the problems the OIG has identified and corrective actions the OIG recommends. This report represents the opinion of the OIG and does not necessarily represent the final EPA position. Final determinations on matters in this report will be made by EPA managers in accordance with established audit resolution procedures.

The estimated cost of this report, calculated by multiplying the project's staff days and expenses by the applicable daily full cost billing rates in effect at the time, is \$113,770.

**Action Required**

Because this report contains no recommendations, you are not required to respond to this report. However, if you submit a response, it will be posted on the OIG's public website, along with our memorandum commenting on your response. Your response should be provided as an Adobe PDF file that complies with the accessibility requirements of section 508 of the Rehabilitation Act of 1973, as amended. The final response should not contain data that you do not want to be released to the public; if your response contains such data, you should identify the data for redaction or removal. We have no objections to the further release of this report to the public. We will post this report to our website at <http://www.epa.gov/oig>.

If you or your staff have any questions regarding this report, please contact Eric Lewis, Director, Special Reviews, at 202-566-2664 or [lewis.eric@epa.gov](mailto:lewis.eric@epa.gov); or Russell Moore, Project Manager, at 202-566-0808 or [moore.russell@epa.gov](mailto:moore.russell@epa.gov).

## Purpose

On August 23, 2010, Senator Charles E. Grassley, Ranking Member of the U.S. Senate Committee on Finance, and Congressman Darrell Issa, Ranking Member of the House Oversight and Government Reform Committee, requested the Inspector General, U.S. Environmental Protection Agency (EPA), to review EPA's Freedom of Information Act (FOIA) office to determine whether political appointees are made aware of information requests and have a role in reviews or decisionmaking related to those requests. They wanted to know whether EPA was engaged in political filtering of information.

## Background

FOIA gives the public the right to ask for records possessed by federal government agencies. In 2002, EPA published regulations describing how it will process FOIA requests. One section provides that the head of an office, or that individual's designee, is authorized to grant or deny any request for a record of that office or other EPA records when appropriate. This regulation is consistent with a 1983 EPA delegation of authority; it gives the heads of major offices authority to make initial determinations related to FOIA requests, but allows them to delegate their authority (1) down to the division director level if EPA is denying release of all or part of the records based on a FOIA exemption, and (2) to an even lower level if all of the requested records are being released.

Including the Office of the Administrator, EPA has 23 major offices. The heads of these offices, as well as some of their deputies, are political appointees. In total, EPA has identified 67 positions that are filled by political appointees. These positions are subject to noncompetitive appointment because the duties may involve advocacy of administration policies and programs, and the incumbents usually have a close and confidential working relationship with the Agency or other key officials.

EPA has assigned staff to manage its FOIA process, including a national FOIA officer in the Office of Environmental Information, a FOIA officer in each region, and a FOIA coordinator for each of the major program offices. To track the FOIA requests, EPA uses an information management system called "FOIAXpress." Overall, EPA's FOIA process is decentralized. Each of the 23 major offices has established its own internal procedures for handling FOIA requests.

## Scope and Methodology

We conducted this review from September through December 2010. The work centered on evaluating a sample of 50 FOIA requests to determine who was involved in processing them. These requests were selected from a universe of 157 requests EPA received between January 21, 2009, and August 31, 2010, that

concerned one of the following subjects the Office of Inspector General (OIG) believed might be of particular interest to EPA political appointees:

- BP oil spill
- Climate change
- Coal ash
- Environmental justice
- Hydraulic fracturing, or fracking
- Mountaintop mining

We identified the universe of requests by searching FOIAXpress. We reviewed the documentation in FOIAXpress associated with the 50 sample items. Except for inquiring about missing documentation, we did not evaluate the accuracy of the data in FOIAXpress. We interviewed the FOIA officer or FOIA coordinator for the following 11 organizations that processed the 50 requests under review:

- Office of the Administrator
- Office of Air and Radiation
- Office of Enforcement and Compliance Assurance
- Office of Inspector General
- Office of Solid Waste and Emergency Response
- Office of Water
- Region 1
- Region 3
- Region 4
- Region 5
- Region 6

For some requests, we also interviewed other EPA employees who were involved in responding. The interviews included a review of FOIA procedures for that office. In addition, we interviewed the EPA national FOIA officer.

We did not test the internal controls related to processing FOIA requests. Controls were evaluated during a prior review by the OIG. The related report, Report No. 09-P-0127, *EPA Has Improved Its Response to Freedom of Information Act Requests But Further Improvement Is Needed*, was issued on March 25, 2009. EPA is still implementing the corrective actions recommended in that report.

We conducted our work in accordance with generally accepted government auditing standards issued by the Comptroller General of the United States. Those standards require that we plan and perform the review to obtain sufficient, appropriate evidence to provide a reasonable basis for our findings and conclusions based on our objectives. We believe the evidence obtained provides a reasonable basis for our findings and conclusions based upon our objectives.

## Results

We concluded that EPA does not have a FOIA process that results in the filtering of requests by political appointees. Generally, political appointees are not involved in the FOIA process, either by policy or in practice. With few exceptions, information is released at the lowest practicable level, which EPA permits. Political appointees are usually involved only to sign denials or partial denials, as was the case in 2 of the 11 offices that we reviewed.

Of the 50 FOIA requests in our sample, political appointees were involved in only 7 of them. In two cases, political appointees were asked to search for responsive records. In four cases, a political appointee signed the response letter because the request resulted in partial denial of information. In one case, a political appointee signed the response letter even though all records were given to the requester, which was done at the discretion of the FOIA coordinator and was not directed by the political appointee.

### ***Requests Are Not Filtered by Political Appointees***

FOIA staff at headquarters and the regions are not political appointees. They review FOIA requests to determine who in their office might have responsive records. The organizational location of the FOIA staff varied across the 11 major offices we reviewed. Of the 11 FOIA officers and coordinators interviewed, 2 (for the Office of Air and Radiation and the Office of Enforcement and Compliance Assurance) work in the immediate office of the assistant administrator (a political appointee). However, these two coordinators have a process that is similar to the other nine offices that we reviewed; they assign all requests to staff without the involvement of the assistant administrator, and neither office specifies a role for political appointees in the FOIA process.

### ***Staff Throughout EPA Collect Relevant Records***

The FOIA officers and coordinators ask EPA offices with responsive records to provide them. Two of the sampled FOIA requests involved political appointees searching for records. However, in both cases, office staff searched for relevant records and forwarded what they had to the response coordinator for further action. The political appointee had no further involvement with the request.

### ***Political Appointees Sign Denial Letters For Two Offices***

Two of the 11 major offices we reviewed (Region 3 and Office of the Executive Secretariat, in the Office of the Administrator) had a political appointee sign all denial and partial denial response letters. Region 3 policy requires the regional administrator to sign all denial and partial denial response letters. None of the eight Region 3 response documents to FOIA requests we reviewed were signed by a political appointee, and none involved denials. The Office of the Executive

Secretariat has the director (who is a political appointee) sign all denial and partial denial letters. This practice ensures compliance with EPA policy that a division director or higher sign all denials or partial denials. The Director for the Office of the Executive Secretariat signed the response letters for five of the FOIA requests in our sample.

### ***FOIA Staff Keeps Management Informed***

The FOIA staff keeps EPA management informed about the FOIA process. All the FOIA officers and coordinators provided reports on FOIA processing to managers at various levels in the office. In 3 of the 11 major offices reviewed, the manager who received the reports was a political appointee.

### ***Special Cases Do Not Involve Political Filtering***

FOIA requests related to the BP oil spill are being monitored on an EPA-wide basis to ensure consistency in the responses due to the large number of documents requested and the significance of the issues involved. A staff member in the Office of General Counsel is notified when BP-related requests are received and when EPA responds. However, for BP-related requests that we reviewed, the response was sent to the Office of General Counsel after the information was released to the requester. At the time of our interviews, no political appointees from the Office of General Counsel were involved in processing these FOIA requests.

EPA has received numerous FOIA requests related to climate change, particularly regarding the April 2009 endangerment finding on greenhouse gases. To ensure EPA offices were handling these requests consistently, an informal work group was formed to review records. None of the members of this work group were political appointees.

## **Conclusion**

Our analysis shows that political appointees at EPA are generally not involved in processing, screening, or approving FOIA requests. Even though our sample included only requests related to controversial subjects, political appointees were involved with 7 of the 50 instances reviewed. The activities of political appointees in the FOIA process at EPA generally include signing denials and partial denials, and receiving reports on FOIA processing. We found no evidence of systematic screening of FOIA requests by political appointees. Based on our review of their program, we conclude that the EPA does not have a process to filter FOIA requests by political appointees.

## **Agency Response and OIG Comment**

To ensure the accuracy of this report, on December 8, 2010, we provided a draft to the Office of Environmental Information for review. In a memorandum dated January 7, 2011, the Assistant Administrator for Environmental Information agreed with the OIG conclusions. Based on Agency comments on the draft report, we made some minor wording changes. This memorandum is included as Appendix A.

## **Status of Recommendations and Potential Monetary Benefits**

RECOMMENDATIONS						POTENTIAL MONETARY BENEFITS (in \$000s)	
Rec. No.	Page No.	Subject	Status	Action Official	Planned Completion Date	Claimed Amount	Agreed-To Amount
No recommendations							

<sup>1</sup> O = recommendation is open with agreed-to corrective actions pending  
 C = recommendation is closed with all agreed-to actions completed  
 U = recommendation is undecided with resolution efforts in progress

**Appendix A**

***Agency Response***



**UNITED STATES ENVIRONMENTAL PROTECTION AGENCY**  
WASHINGTON, D.C. 20460

OFFICE OF  
ENVIRONMENTAL INFORMATION

Jan – 7 2011

**MEMORANDUM**

**SUBJECT:** Draft Report: Congressionally Requested Inquiry Into EPA's Handling of Freedom of Information Act Requests - Project No. OPE-FY10-0027

**FROM:** Malcolm D. Jackson  
Assistant Administrator and Chief Information Officer

**TO:** Eric Lewis  
Director, Special Reviews  
Office of Program Evaluation  
Office of the Inspector General

Thank you for the opportunity to review the draft report "Congressionally Requested Inquiry Into EPA's Handling of Freedom of Information Act Requests," Project No. OPE-FY10-0027.

The U.S. Environmental Protection Agency (EPA) is committed to conducting its business in an open and transparent manner and takes pride in the quality of customer service it provides to Freedom of Information Act (FOIA) requesters. The Agency will continue to review its FOIA administration activities to identify opportunities to further strengthen and enhance its policies, procedures and processes. I understand that a few minor technical errors were communicated to your staff and will be corrected in the final report.

If you have any questions about EPA's FOIA Program, please feel free to contact Larry F. Gottesman, EPA National FOIA Officer, at (202) 566-2162.

**Appendix B**

***Distribution***

Office of the Administrator  
Assistant Administrator for Environmental Information and Chief Information Officer  
Agency Followup Official (the CFO)  
Agency Followup Coordinator  
General Counsel  
Associate Administrator for Congressional and Intergovernmental Relations  
Associate Administrator for External Affairs and Environmental Education  
Director, Office of Regional Operations  
Inspector General  
National FOIA Officer, Office of Environmental Information  
Audit Followup Coordinator, Office of Environmental Information  
Office of the Administrator FOIA Coordinator

01268-EPA-943

Steve Owens/DC/USEPA/US  
01/20/2011 05:57 PM

To "Bob Sussman", "Lawrence Elworth", "Bob Perciasepe",  
"Richard Windsor"  
cc  
bcc

Subject Fw: New ESA litigation -- CBD & PANNA file "mega-suit"

Fyi

Mark Dyner

----- Original Message -----

**From:** Mark Dyner  
**Sent:** 01/20/2011 05:48 PM EST  
**To:** Steve Owens; Steven Bradbury; Jim Jones; Richard Keigwin; Douglas  
Parsons; Donald Brady; Bill Diamond; Dale Kemery  
**Cc:** Leslye Fraser; Robert Perlis; Avi Garbow; Brenda Mallory  
**Subject:** New ESA litigation -- CBD & PANNA file "mega-suit"  
**privileged/attorney work product/do not disclose**

Steve, *et al.*,

(b) (5) Deliberative, (b) (5) Attorney Client



Please feel free to call me, Bob or Leslye if you have any questions.

Mark



11-0293-JCS\_Complaint\_1-20-2011.pdf

Mark Dyner  
EPA Office of General Counsel  
(202) 564-1754

01268-EPA-945

Cynthia  
Giles-AA/DC/USEPA/US  
01/22/2011 03:11 PM

To Richard Windsor  
cc Aaron Dickerson, Bob Perciasepe, Bob Sussman  
bcc

Subject OECA tracker

Attached is OECA hot issues tracker for the coming two weeks. Several significant cases noted.

Cynthia

(b) (5) Deliberative,  
(b) (5) Attorney  
Client, (b) (5) Atty

OECA HIT List 1-22-11.docx

Cynthia Giles  
Assistant Administrator  
U.S. EPA, Office of Enforcement and Compliance Assurance  
1200 Pennsylvania Avenue, N.W.  
Washington, D.C. 20460  
202-564-2440

THIS MESSAGE IS CONFIDENTIAL and may contain legally privileged information. If you receive it in error, please delete it immediately, do not copy, and notify the sender. Thank you.

01268-EPA-961

**Scott Fulton/DC/USEPA/US**

01/26/2011 05:47 PM

To Scott Fulton

cc mcintosh.david, Gina McCarthy, Richard Windsor, "Bob Sussman"

bcc

Subject Re: OIRA Issa Exchange

Sorry -- forgot the attachment. Here it is..

-----Scott Fulton/DC/USEPA/US wrote: -----

To: mcintosh.david@epa.gov, Gina McCarthy/DC/USEPA/US@EPA, Richard Windsor/DC/USEPA/US@EPA, "Bob Sussman" <Sussman.Bob@epamail.epa.gov>  
From: Scott Fulton/DC/USEPA/US  
Date: 01/26/2011 05:45PM  
Subject: OIRA Issa Exchange

Joel will be tracking OIRA's response, (b) (5) Deliberative, (b) (5) Attorney Client

See attached.

(b) (5)  
Deliberative

oira follow up questions from Issa.doc

01268-EPA-965

Arvin Ganesan/DC/USEPA/US

To Richard Windsor

01/30/2011 10:24 AM

cc

bcc

Subject EPW hearing prep

Hi Lisa,

Hope Utah was nice. I'm attaching a bunch of documents to this and will have these in hard copy in a binder for you on Monday am. These documents are to prep you for your EPW hearing on Wednesday. I'm also attaching my first cut of your oral testimony - which is also in your weekend binder. If you could look at this and let me know if you're comfortable with the structure, that would be great. You have one prep session scheduled for Monday, and I'd rather not waste time going through testimony, unless you'd like to.

I've also created a couple short docs with questions on Chromium and Perchlorate as well as a longer Q&A doc. I'd suggest that you take a look either today or before Wednesday's hearing at these documents.

Again, you'll have this all in hard copy on Monday.

Thanks.

(b) (5)  
Deliberative

- Drinking Water Oral Testimony ARG draft 1 for LPJ.do

(b) (5)  
Deliberative

science questions perchlorate

(b) (5)  
Deliberative

- chromium question

(b) (5)  
Deliberative

drinking water questions expansive



01268-EPA-970

**Diane  
Thompson/DC/USEPA/US**  
01/31/2011 08:38 PM

To "Richard Windsor"  
cc "Bob Perciasepe", "Barbara Bennett"  
bcc  
Subject Fw: Budget brfg

Barb put togtr sm bdgt mtrl for tmr. (b) (5) Deliberative  
Let us kno if there is smthg else u think u cld use. DT

---

**From:** Barbara Bennett  
**Sent:** 01/31/2011 08:22 PM EST  
**To:** Diane Thompson  
**Subject:** Re: Budget brfg

(b) (5) Deliberative  
If this is too long, I can try to pare it down.

-----Diane Thompson/DC/USEPA/US wrote: -----

To: "Barbara Bennett" <bennett.barbara@epa.gov>  
From: Diane Thompson/DC/USEPA/US  
Date: 01/31/2011 05:51PM  
Subject: Budget brfg

An agenda item for the Cab mtg tmr is budget brfg. (b) (5) Deliberative  
t? She wld need it first thng tmr, and it wld need to be  
smthg we can email.

(b) (5) Deliberative

FY\_2012\_Message\_points.docx

01268-EPA-976

**David  
McIntosh/DC/USEPA/US**  
02/02/2011 06:45 PM

To "Richard Windsor", Diane Thompson, Bob Perciasepe, Scott  
Fulton, "Seth Oster", Arvin Ganesan, "Bob Sussman",  
Michael Goo, Bicky Corman, Barbara Bennett, Lawrence  
Elworth

cc

bcc

Subject text, summary, and hearing schedule of Chairman Upton's bill

Attached is the text and a summary of the bill that Chairman Upton and Senator Inhofe introduced in their respective houses today. It's very similar to the bill that Senator Barrasso introduced yesterday. I'm told that Chairman Upton will hold a hearing on his bill next Wednesday, February 9. Right now it does not appear that he will seek any witnesses

from the Administration. [REDACTED] - Energy Tax Prevention Act of 2011 Section by Section.pdf [REDACTED] - GG\_01\_xml.pdf

**SECTION-BY-SECTION SUMMARY**  
**THE “ENERGY TAX PREVENTION ACT OF 2011”**  
**DISCUSSION DRAFT**

**Section 1: Short Title**

Section 1 provides the short title for the legislation, the “Energy Tax Prevention Act of 2011.”

**Section 2: No Regulation of Emissions of Greenhouse Gases**

Section 2 amends the General Provisions of the Clean Air Act by adding a new Section 330. Section 330(a) expressly defines the greenhouse gases that are to be excluded from any climate change-related regulation (*e.g.*, water vapor, carbon dioxide, and methane). Section 330(b)(1) makes clear that the Administrator of the U.S. Environmental Protection Agency (“EPA”) may not promulgate regulations or take action with respect to greenhouse gases due to concerns regarding possible climate change under the Clean Air Act. The term “air pollutant” is clarified to exclude greenhouse gases for the purposes of addressing climate change.

Section 330(b)(2) provides for the following exceptions to the prohibition on the Administrator’s greenhouse gas regulatory authority:

- Emissions standards for 2012-2016 model year vehicles already promulgated by EPA and emissions standards for 2014- 2018 heavy-duty engines proposed by EPA.
- Authorized federal research, development and demonstration programs addressing climate change.
- Provisions relating to stratospheric ozone protection and implementation of the Montreal Protocol.

Section 330(b)(3) clarifies that the exceptions in (b)(2) do not trigger regulatory obligations under part C of Title I (“Prevention of Significant Deterioration Program”) or Title V of the Clean Air Act.

Section 330 (b)(4) expressly repeals prior rulemakings by EPA with respect to regulating greenhouse gases due to concerns regarding possible climate change.

Section 330(b)(5) states that nothing in the Act affects State authority to adopt and enforce State laws and regulations pertaining to greenhouse gases; however, any changes States have adopted in their State implementation programs and Title V operating permit programs with respect to greenhouse gases are not federally enforceable.

**Section 3: Regulation of Automobiles**

Section 3 amends Clean Air Act section 209(b) to exclude greenhouse gases from the Administrator’s waiver authority for new motor vehicles or new motor vehicle engines for model year 2017 and any subsequent model year.

[Discussion Draft]

# [DISCUSSION DRAFT]

112TH CONGRESS  
1ST SESSION

# H. R.

To amend the Clean Air Act to prohibit the Administrator of the Environmental Protection Agency from promulgating any regulation concerning, taking action relating to, or taking into consideration the emission of a greenhouse gas due to concerns regarding possible climate change, and for other purposes.

---

## IN THE HOUSE OF REPRESENTATIVES

M . . . . . introduced the following bill; which was referred to the Committee on

---

# A BILL

To amend the Clean Air Act to prohibit the Administrator of the Environmental Protection Agency from promulgating any regulation concerning, taking action relating to, or taking into consideration the emission of a greenhouse gas due to concerns regarding possible climate change, and for other purposes.

1 *Be it enacted by the Senate and House of Representa-*  
2 *tives of the United States of America in Congress assembled,*

3 **SECTION 1. SHORT TITLE.**

4 This Act may be cited as the “Energy Tax Prevention  
5 Act of 2011”.

1 **SEC. 2. NO REGULATION OF EMISSIONS OF GREENHOUSE**  
2 **GASES.**

3 Title III of the Clean Air Act (42 U.S.C. 7601 et  
4 seq.) is amended by adding at the end the following:

5 **“SEC. 330. NO REGULATION OF EMISSIONS OF GREEN-**  
6 **HOUSE GASES.**

7 “(a) DEFINITION.—In this section, the term ‘green-  
8 house gas’ means any of the following:

9 “(1) Water vapor.

10 “(2) Carbon dioxide.

11 “(3) Methane.

12 “(4) Nitrous oxide.

13 “(5) Sulfur hexafluoride.

14 “(6) Hydrofluorocarbons.

15 “(7) Perfluorocarbons.

16 “(8) Any other substance subject to, or pro-  
17 posed to be subject to, regulation, action, or consid-  
18 eration under this Act due to concerns regarding  
19 possible climate change.

20 “(b) LIMITATION ON AGENCY ACTION.—

21 “(1) LIMITATION.—

22 “(A) IN GENERAL.—The Administrator  
23 may not, under this Act, promulgate any regu-  
24 lation concerning, take action relating to, or  
25 take into consideration the emission of a green-

1 house gas due to concerns regarding possible  
2 climate change.

3 “(B) AIR POLLUTANT DEFINITION.—The  
4 definition of the term ‘air pollutant’ in section  
5 302(g) does not include a greenhouse gas. Not-  
6 withstanding the previous sentence, such defini-  
7 tion may include a greenhouse gas for purposes  
8 of addressing concerns other than possible cli-  
9 mate change.

10 “(2) EXCEPTIONS.—Paragraph (1) does not  
11 prohibit the following:

12 “(A) Notwithstanding paragraph (4)(A),  
13 implementation and enforcement of the rule en-  
14 titled ‘Light-Duty Vehicle Greenhouse Gas  
15 Emission Standards and Corporate Average  
16 Fuel Economy Standards’ (as published at 75  
17 Fed. Reg. 25324 (May 7, 2010) and without  
18 further revision) and finalization, implementa-  
19 tion, enforcement, and revision of the proposed  
20 rule entitled ‘Greenhouse Gas Emissions Stand-  
21 ards and Fuel Efficiency Standards for  
22 Medium- and Heavy-Duty Engines and Vehi-  
23 cles’ published at 75 Fed. Reg. 74152 (Novem-  
24 ber 30, 2010).

1           “(B) Statutorily authorized Federal re-  
2 search, development, and demonstration pro-  
3 grams addressing climate change.

4           “(C) A regulation, action, or consideration  
5 under title VI, except to the extent to which the  
6 regulation, action, or consideration is based on  
7 the potential or actual effect of a greenhouse  
8 gas on climate change.

9           “(3) INAPPLICABILITY OF PROVISIONS.—Noth-  
10 ing listed in paragraph (2) shall cause a greenhouse  
11 gas to be considered subject to part C of title I (re-  
12 lating to prevention of significant deterioration of air  
13 quality) or considered an air pollutant for purposes  
14 of title V (relating to permits).

15           “(4) CERTAIN PRIOR AGENCY ACTIONS.—The  
16 following rules and actions are repealed and shall  
17 have no legal effect:

18           “(A) ‘Endangerment and Cause or Con-  
19 tribute Findings for Greenhouse Gases Under  
20 Section 202(a) of the Clean Air Act’, published  
21 at 74 Fed. Reg. 66496 (December 15, 2009).

22           “(B) ‘Reconsideration of Interpretation of  
23 Regulations That Determine Pollutants Covered  
24 by Clean Air Act Permitting Programs’, pub-  
25 lished at 75 Fed. Reg. 17004 (April 2, 2010)

1 and the memorandum from Stephen L. John-  
2 son, Environmental Protection Agency (EPA)  
3 Administrator, to EPA Regional Administra-  
4 tors, concerning 'EPA's Interpretation of Regu-  
5 lations that Determine Pollutants Covered by  
6 Federal Prevention of Significant Deterioration  
7 (PSD) Permit Program' (December 18, 2008).

8       “(C) ‘Prevention of Significant Deteriora-  
9 tion and Title V Greenhouse Gas Tailoring  
10 Rule’, published at 75 Fed. Reg. 31514 (June  
11 3, 2010).

12       “(D) ‘Action To Ensure Authority To  
13 Issue Permits Under the Prevention of Signifi-  
14 cant Deterioration Program to Sources of  
15 Greenhouse Gas Emissions: Finding of Sub-  
16 stantial Inadequacy and SIP Call’, published at  
17 75 Fed. Reg. 77698 (December 13, 2010).

18       “(E) ‘Action To Ensure Authority To  
19 Issue Permits Under the Prevention of Signifi-  
20 cant Deterioration Program to Sources of  
21 Greenhouse Gas Emissions: Finding of Failure  
22 To Submit State Implementation Plan Revi-  
23 sions Required for Greenhouse Gases’, pub-  
24 lished at 75 Fed. Reg. 81874 (December 29,  
25 2010).

1           “(F) ‘Action to Ensure Authority To Issue  
2           Permits Under the Prevention of Significant  
3           Deterioration Program to Sources of Green-  
4           house Gas Emissions: Federal Implementation  
5           Plan’, published at 75 Fed. Reg. 82246 (De-  
6           cember 30, 2010).

7           “(G) ‘Action to Ensure Authority to Imple-  
8           ment Title V Permitting Programs Under the  
9           Greenhouse Gas Tailoring Rule’, published at  
10          75 Fed. Reg. 82254 (December 30, 2010).

11          “(H) ‘Determinations Concerning Need for  
12          Error Correction, Partial Approval and Partial  
13          Disapproval, and Federal Implementation Plan  
14          Regarding Texas Prevention of Significant De-  
15          terioration Program’, published at 75 Fed. Reg.  
16          82430 (December 30, 2010).

17          “(I) ‘Limitation of Approval of Prevention  
18          of Significant Deterioration Provisions Con-  
19          cerning Greenhouse Gas Emitting-Sources in  
20          State Implementation Plans’, published at 75  
21          Fed. Reg. 82536 (December 30, 2010).

22          “(J) ‘Determinations Concerning Need for  
23          Error Correction, Partial Approval and Partial  
24          Disapproval, and Federal Implementation Plan  
25          Regarding Texas Prevention of Significant De-

1 terioration Program; Proposed Rule’, published  
2 at 75 Fed. Reg. 82,365 (December 30, 2010).

3 “(K) Any other Federal action under this  
4 Act occurring before the date of enactment of  
5 this section that applies a stationary source per-  
6 mitting requirement or an emissions standard  
7 for a greenhouse gas due to concerns regarding  
8 possible climate change.

9 “(5) STATE ACTION.—

10 “(A) NO LIMITATION.—This section does  
11 not limit or otherwise affect the authority of a  
12 State to adopt, amend, enforce, or repeal State  
13 laws and regulations pertaining to the emission  
14 of a greenhouse gas.

15 “(B) EXCEPTION.—

16 “(i) RULE.—Notwithstanding sub-  
17 paragraph (A), any provision described in  
18 clause (ii)—

19 “(I) is not federally enforceable;  
20 and

21 “(II) is not deemed to be a part  
22 of Federal law.

23 “(ii) PROVISION DEFINED.—For pur-  
24 poses of clause (i), the term ‘provision’  
25 means any provision that—

1                   “(I) is contained in a State im-  
2                   plementation plan under section 110  
3                   and authorizes or requires a limitation  
4                   on, or imposes a permit requirement  
5                   for, the emission of a greenhouse gas  
6                   due to concerns regarding possible cli-  
7                   mate change; or

8                   “(II) is part of an operating per-  
9                   mit program under title V, or a per-  
10                  mit issued pursuant to title V, and  
11                  authorizes or requires a limitation on  
12                  the emission of a greenhouse gas due  
13                  to concerns regarding possible climate  
14                  change.

15                  “(C) ACTION BY ADMINISTRATOR.—The  
16                  Administrator may not approve or make feder-  
17                  ally enforceable any provision described in sub-  
18                  paragraph (B)(ii).”.

19   **SEC. 3. REGULATION OF AUTOMOBILES.**

20                  Section 209(b) of the Clean Air Act (42 U.S.C. 7543)  
21                  is amended by adding at the end the following:

22                  “(4) With respect to standards for emissions of  
23                  greenhouse gases (as defined in section 330) for model  
24                  year 2017 or any subsequent model year new motor vehi-  
25                  cles and new motor vehicle engines—

1           “(A) the Administrator may not waive applica-  
2           tion of subsection (a); and

3           “(B) no waiver granted prior to the date of en-  
4           actment of this paragraph may be construed to  
5           waive the application of subsection (a).”.

01268-EPA-977

Adora Andy/DC/USEPA/US

To Richard Windsor

02/02/2011 06:52 PM

cc

bcc

Subject YOUR Greatest Hits

Administrator,

(b) (5) Deliberative

I've included the document - attached - so that you have it to pass along if needed.  
Here's the table of contents for your quick reference:

**Major Profile Stories – EPA Administrator Lisa P. Jackson**

- New Orleans Times-Picayune – *“Obama taps New Orleans native Lisa Jackson to lead Environmental Protection Agency ”* – December 15, 2008
- Essence.com – *“Obama Appointee Lisa Jackson Brings Change to Environmental Protection Agency ”* – January 29, 2009
- Associated Press – *Hurricane Katrina Propels Lisa Jackson’s Quest at EPA* – January 10, 2010
- Rolling Stone – *“The Eco Warrior ”* – January 20, 2010
- Newsweek – *“The Green Fighter ”* – March 29, 2010
- Black Enterprise – *“The Protector ”* – April 1, 2010
- TIME Magazine – *“The 2010 Top 100: Lisa Jackson ”* – April 29, 2010
- Ebony Magazine – *“The Cleanup Woman ”* – May 2010
- Elle Magazine – *“Lovely and Amazing ”* – November 24, 2010
- New Jersey Star-Ledger – *EPA chief Lisa Jackson braces for battle with Congress over climate change regulations* - December 12, 2010

Let me know if you'd like something else included.

Best,  
Adora

Adora Andy  
Deputy Associate Administrator  
U.S. Environmental Protection Agency  
Office of External Affairs and Environmental Education  
202-564-2715  
andy.adora@epa.gov



2-1-11 greatest hits.doc

### **Major Profile Stories – EPA Administrator Lisa P. Jackson**

- New Orleans Times-Picayune – *“Obama taps New Orleans native Lisa Jackson to lead Environmental Protection Agency”* – December 15, 2008
- Essence.com – *“Obama Appointee Lisa Jackson Brings Change to Environmental Protection Agency”* – January 29, 2009
- Associated Press – *Hurricane Katrina Propels Lisa Jackson’s Quest at EPA* – January 10, 2010
- Rolling Stone – *“The Eco Warrior”* – January 20, 2010
- Newsweek – *“The Green Fighter”* – March 29, 2010
- Black Enterprise – *“The Protector”* – April 1, 2010
- TIME Magazine – *“The 2010 Top 100: Lisa Jackson”* – April 29, 2010
- Ebony Magazine – *“The Cleanup Woman”* – May 2010
- Elle Magazine – *“Lovely and Amazing”* – November 24, 2010
- New Jersey Star-Ledger – *EPA chief Lisa Jackson braces for battle with Congress over climate change regulations-* December 12, 2010

**Obama taps New Orleans native Lisa Jackson to lead Environmental Protection Agency**

New Orleans Times-Picayune

December 15, 2008

By Jonathan Tilove

President-elect Barack Obama listens as Lisa Jackson, his new designate as Environmental Protection Agency administrator, speaks at a news conference in Chicago Monday. WASHINGTON -- Lisa Perez Jackson was first in her class at St. Mary's Dominican High School in New Orleans in 1979. In her valedictory remarks, she declared, "Dominican has taught us to believe in our God and in ourselves. We have exceedingly deep roots."

For Jackson, who was named Monday by President-elect Barack Obama to head the Environmental Protection Agency, those deep roots are in New Orleans' Lower 9th Ward, where she grew up and where her mother lived until Hurricane Katrina.

Introduced at a Chicago news conference where the president-elect unveiled his energy and environmental team, Jackson, 46, said, "As an environmentalist, as a public servant, as a native New Orleanian, as a New Jerseyan, and, most importantly, as a mother, there is simply no higher calling for me than to lead this vital agency at this vital time."

Jackson, who is chief of staff to New Jersey Gov. Jon Corzine and formerly served as commissioner of the New Jersey Department of Environmental Protection, will be the first African-American to lead the EPA, where she once worked.

As part of Obama's energy and environment team, she joins Steven Chu, a Nobel Prize-winning physicist, who was named secretary of energy; Nancy Sutley, the deputy mayor for energy and environment in Los Angeles, picked to lead the White House Council on Environmental Quality; and Carol Browner, who served as EPA administrator in the Clinton administration, in the newly created post of assistant to the president for energy and climate change.

"In the 21st century, we know that the future of our economy and national security is inextricably linked to one challenge: energy," Obama said. "The team that I have assembled here today is uniquely suited to meet the great challenges of this defining moment."

Jackson was a Hillary Clinton delegate to the Democratic National Convention, but was chosen by Obama to serve on his transition panel on energy and the environment. She is viewed by her admirers as a problem-solver who has shown leadership on reducing greenhouse gas emissions, though some critics in New Jersey and elsewhere consider her too accommodating to industry interests.

In brief remarks Monday, Jackson said, "At the top of the list is the threat of climate change, which requires us to transform how we produce and use energy throughout the economy."

She added, "But there is much more on the agenda: air pollution, toxic chemicals and children's health issues, redevelopment and waste-site cleanup issues, and justice for communities who bear disproportionate risk and have much to gain from (Obama's) green-collar economic agenda."

Jackson graduated summa cum laude from Tulane University, with a bachelor's degree in chemical engineering, before leaving Louisiana to get her master's degree in chemical engineering from Princeton University.

According to a recent New York Times profile, Jackson was born in Philadelphia but was adopted a few weeks later and raised in New Orleans. She is renowned for her gumbo and her annual Mardi Gras party, which she has not held since Hurricane Katrina.

According to an interview last year in The Positive Community, a faith-based lifestyle magazine targeted to the African-American market in New York and New Jersey, Jackson was visiting her mother on her

birthday when Hurricane Katrina hit. "I drove my mother, her sister and my stepfather out of New Orleans to Shreveport not realizing that would be the last time my mother would see her house the way she left it."

In the same interview, Jackson said, "The Katrina experience made me realize that you can't fight; you have to accept what God has in store for you. I truly believe that God gave us this world and we have a moral obligation not to turn around and give the next generations a trash heap that they can't live off of."

Those who knew her at Dominican and Tulane, where she continues to actively serve on the advisory board to the department where she studied, describe her as smart and dedicated.

Professor Kyriakos Papadopoulos said he taught Jackson his first year at Tulane and "she was the top student in that class. There were no classes where she would not do it perfectly. She was the sharpest brain in her class."

"She's very, very sharp but also very, very communications-oriented, " said a Tulane classmate, Alon McCormick, now a professor at the University of Minnesota. "Usually a class of engineers is a bunch of nerds, but when Lisa was around, you were sure that things were going to be put in context."

"We're sending her a Tulane banner to put on her desk, " said Vijay John, chairman of Tulane's department of chemical and biomolecular engineering, who taught Jackson when he arrived at Tulane.

"I'm delighted someone from Louisiana is going to have that position, " said Dan Borne, president of the Louisiana Chemical Association

Meanwhile, the Natural Resources Defense Council hailed Obama's choices and said the Jackson pick, "signals to the rest of the world that the United States will be a leader on global warming."

"This is certainly a person who understands environmental justice and who has launched and initiated efforts to reduce pollution and therefore the cancer and health impacts in communities of color, " said Monique Harden, co-director of Advocates for Environmental Human Rights, a nonprofit legal advocacy group in New Orleans.

But Public Employees for Environmental Responsibility wrote Obama a letter earlier this month advising against her appointment and suggesting that, "Contrary to your pledges of a transparent government, Ms. Jackson preferred a closed-door model of decision-making based upon non-public meetings with regulated industry executives and lobbyists."

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## Obama Appointee Lisa Jackson Brings Change to Environmental Protection Agency

Essence.com

By Cynthia Gordy

January 29, 2009

Another historic oath of office was taken on Tuesday, when Lisa P. Jackson was sworn in as administrator of the Environmental Protection Agency. A Princeton-educated chemical engineer who previously served as commissioner of the New Jersey Department of Environmental Protection, Jackson is the first African-American to lead the EPA. At a press conference earlier this week, she stood at the front of the White House's East Room as President Obama signed his first environmental policies, which she also helped design. ESSENCE.com met Jackson at her Washington office to discuss these newly instated orders, critics who slammed her appointment, and her message to Black America on why we must take a bigger part in the green movement.

ESSENCE.COM: Congratulations on being sworn in yesterday. How does it feel to officially be the EPA administrator?

LISA P. JACKSON: It really just hit me at the swearing-in. It is a feeling of extraordinary responsibility when you think about ensuring the implementation of laws that are, at the heart, geared toward the protection of human health and the environment. It's an awesome responsibility. So I am honored, but you don't have a lot of time to sit around feeling honored. You have to move on and get the job done.

ESSENCE.COM: On Monday President Obama signed two executive orders, one of which enforces strict emissions standards on automobile companies. The policy has been criticized as putting a burden on auto companies at a time when they're struggling to stay afloat. Is it irresponsible to put air pollution ahead of the dire needs of the auto industry?

JACKSON: I would frame it differently. I would say that it is a false choice, and the President has said this, it's a false choice to think you have to choose one or the other—a clean environment, a child without asthma and less smog versus a thriving auto industry. If we're going to have a thriving auto industry in this country, it's got to recognize that automobiles are, in many states, almost half of the air pollution problem. They're a huge contributor to climate change and greenhouse gas emissions, and if we're going to build a vibrant sustainable industry, we have to address that.

ESSENCE.COM: The executive orders signed on Monday also allow 14 states to regulate tailpipe emissions. None of this resonated much among African-Americans. Can you explain to the Black community how these issues affect them in particular?

JACKSON: For a long time, I think the Black community thought that environmentalism is something that you worry about after some of the more pressing issues that face our community, whether it be racial prejudice or unemployment or housing or other issues that tend to be more urban-focused. But I think there is an increasing realization, and the environmental justice movement has known this for a long time, that the issues of the urban community include the environment, and that environmental protection is also community, neighborhood and family protection. The asthma rates among African-American children, for example, are very high. We need to, as a people, become more cognizant of the connection between the environment and our health, and also the environment and our economy. The future economy that may present you with getting a job may well be a green economy. Black people need to claim that economy, and realize that the opportunities for jobs are going to be in energy efficiency, in fuel efficiency, in renewable power. You have to start to move that way in the interest you show.

ESSENCE.COM: You mentioned environmental justice. The practice of locating polluting industries in minority communities—and the consequent health impacts—is well documented. African-Americans are almost 80 percent more likely than White Americans to live in neighborhoods near hazardous industrial pollution sites. Yet the EPA has failed to implement policy that specifically protects communities of color. As EPA administrator, is the issue of environmental justice one that you plan to address?

JACKSON: It is. I think the first thing to do is to elevate the issue, to make it something that overlays all the work of this agency. And second, a lot times the justice issues aren't just things in EPA, but they may have to do with the citing of a road that bisects a community, so that's a Department of Transportation issue. Or it could have to do with the Department of Labor and green job training, ensuring that those funds for training flow to communities of color. Those are issues that I'm particularly well-equipped to deal

with. I grew up in an urban environment; I'm a city girl; and I'm an African-American woman. Those are all things that make me who I am, and I bring that to this job. I'm looking forward to making sure that this agency is open to reaching out to those constituencies so they feel empowered to advocate for themselves.

ESSENCE.COM: So, once the issue has been elevated within the EPA, are there specific efforts that you will make to reduce the disproportionate levels of pollution in communities of color?

JACKSON: I would be wrong to sit here and outline an agenda for you. In short order, we will elevate the program. We will put it in a place with managers who have experience working with that community. I hope you'll find that the political staff that we bring in is diverse, which is very important. I'm the first African-American administrator, but I am far from the only Black environmental professional. There are Hispanic professionals, American Indians who have been dealing with these issues. That's the first thing, to make sure my senior staff reflects the diversity of opinions on the issues that are discussed in the room, especially when it comes to hazardous waste sites and air pollution.

ESSENCE.COM: While your appointment to lead the EPA has been praised by many environmental organizations, a group called the Public Employees for Environmental Responsibility denounced it with complaints that you failed to clean up toxic waste sites when you headed to New Jersey's Department of Environmental Protection. What is your response to these critics?

JACKSON: No one's perfect, and the environment is a tough, tough issue. I'm really proud of my record in New Jersey, and I felt that many of the things that folks said are sort of nitpicking. They went out of their way to find something that they didn't like, and looked over a whole bunch of extraordinary things that we did. We have probably, along with California, some of the toughest global warming laws in the country. We have 600-plus miles of waterways upgraded, so to criticize me for the 200 miles that weren't means you have to look over the 600 miles that were. We had tough chemical security laws. We did a lot of work in New Jersey to try to be progressive and thoughtful about the environment. I'm looking forward to establishing a legacy that shows that all the concerns that were expressed—by one group, by the way—were misguided at best. I think that's going to happen sooner, not later.

ESSENCE.COM: Do you have any thoughts on what the next four years are going to be like for our country under President Obama?

JACKSON: I can tell you what I've seen so far from him as a boss, which is that he's determined and focused on managing government in a way that serves people and gets results. I'm looking forward to a progressive and forward-thinking next four years—actually, eight years—that will not only elevate the issues I care about for the environment, but elevate our country as a leader on issues that we all care about. First we have to deal with the economy and make sure that the hard times ahead don't sap our spirit. But the President has said that we're going to face these challenges and we're going to meet them, and that's how I feel about the environmental challenges we face as well.

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**Hurricane Katrina propels Lisa Jackson's justice quest at EPA**  
**Associated Press**  
**Dina Cappiello,**  
**Sunday, January 10, 2010**

More than four years after Hurricane Katrina, the single-story brick rancher in Pontchartrain Park where Lisa Perez Jackson grew up stands empty.

Floodwaters long ago ate away the walls of her corner bedroom, where the current head of the Environmental Protection Agency once hung Michael Jackson and Prince posters and studied her way to the top of her high school class.

Faded spray paint, left by search teams to indicate that no bodies were found, serves as a reminder of the day Jackson evacuated her mother, Marie, to Bossier City ahead of the approaching storm.

Katrina was the closest that an environmental disaster had hit home for someone who has spent her career solving environmental problems. Now, she's in charge of ensuring that all communities are equally protected from pollution.

The storm's toll on Jackson's childhood house and on New Orleans, particularly the 9th Ward where she was raised, has intensified her quest for what's known as environmental justice. That means involving and getting fair treatment for the poor and minorities, who often endure the greatest exposure to environmental hazards but are outside the mainstream movement trying to find solutions.

It's this fight that Jackson wants most to be remembered for from her tenure as President Barack Obama's chief environmental steward.

As the first black EPA administrator, Jackson has infused race and class into environmental decisions even though she acknowledges it's not a top priority for Obama. She's changed the way EPA does business with minorities and has called on the predominantly white environmental movement to diversify.

In speeches, she says she's trying to alter the face of environmentalism. She started in her own office, appointing a special adviser for environmental justice issues and hiring a multiracial staff to lead an agency where she often finds herself the only nonwhite at the table.

"This is a unique moment, where you now have a person of color in charge of the EPA for the first time ever and not trying to make that into a one-liner, but say, 'OK, what does that mean?'" said Jackson, 47, in an interview with The Associated Press.

"It means that I can sit in a room ... and maybe use my position to hear in a different way folks who don't feel heard. ... It's about me trying to figure out what I would like people to say about the Lisa Jackson EPA when I'm done. And I want them to say, 'You know, she really opened that agency up, she really made ways that have lived past her for that agency to speak to people of color, to speak to the poor, and to make sure their issues are taken into account.'"

That philosophy was on full display during her first visit back to New Orleans as EPA head in November. Some community activists who felt shut out by the EPA during the Bush administration got a chance to meet with the agency leader for the first time.

When one group crashed an invitation-only luncheon with environmental justice leaders, Jackson told the organizers that she still wanted to hear what they had to say.

"I was shocked. When she said I am going to listen to you, I said, 'Huh?'," said Albertha Hasten, president of the Louisiana Environmental Justice Community Organizations Coalition, who said she was unaware the meeting required an invitation.

Jackson's next stop was a sit-down with representatives of some of the nation's largest environmental groups. Not only did the color of those around the table change, but so did the topic. Hasten and others discussed soil contamination, illegal dumping and health problems caused by industries in their communities. The big environmental groups talked to Jackson about the importance of saving the disappearing Gulf Coast.

"I feel both sides," said Jackson in an interview after the two meetings.

Adopted at two weeks old from Philadelphia, Jackson and her two brothers were raised by Benjamin Perez, a postal delivery man in New Orleans' French Quarter, and his wife, Marie, who sometimes worked as a secretary. Her father died when Jackson was in the 10th grade.

She grew up in the middle-class black suburb of Pontchartrain Park. The tight-knit neighborhood, centered around a golf course, resembled more of a Mayberry, the fictional Southern town from "The Andy Griffith Show," than a pit of pollution amid industry, according to Troy Henry, a neighborhood resident and a candidate for mayor. It was home to politicians and professionals -- and the actor Wendell Pierce.

"When I was growing up, it wasn't like I looked around and said, 'Well, I gotta do something about this, I live next door to a factory,'" said Jackson. "It is not that neighborhood."

Her mother says she was "sheltered from some of the hurt that other people felt. She realized the differences and she knew that there were some people that didn't have the same things she had. She always realized that neighborhoods were different, she realized as she got older ... waterways and our pollution and our canals and the oil refineries and the drilling ... (are) detrimental to people."

After graduating from a girls' only Catholic high school, Jackson made it to Tulane University, where she stood out in the chemical engineering department. She was one of the smartest, and the lone black woman in her class.

Sam Sullivan, emeritus associate dean of engineering who recruited Jackson to Tulane in the late 1970s, said, "She is a minority, her family was not rich. She grew up in that environment, so she can relate to some of the problems that people at that level have that frankly a lot of people who have been in that job just couldn't do."

Before Jackson took over at the EPA, Robert Bullard, regarded as the father of environmental justice, had "basically zero" contact with agency chiefs. He's met with Jackson at least a dozen times.

"We never had anything like that before," said Bullard, director of the Environmental Justice Center at Clark Atlanta University. "What that openness and access has to do with is that African-Americans and communities of color were shut out."

Months after Katrina hit, Jackson was under consideration to be environmental chief for New Jersey Gov. Jon Corzine -- a job she later took -- and she couldn't get back to New Orleans when her mother returned to Pontchartrain Park to clean up.

The house, like many in the neighborhood, was filled with 6 feet to 8 feet of water. There was no flood insurance to cover the damage, so Jackson's mother eventually sold the home to the state.

Jackson hasn't forgotten the photograph of her mother sent to her by the Catholic charity that helped gut her house. It shows Marie Perez in a wheelchair watching as all the belongings collected over her life were removed. She also can't forget how she was unable to financially help her mother to rebuild.

During her visit to New Orleans in November, Jackson went back to Pontchartrain Park and learned that the house would be razed and rebuilt into an energy-efficient model.

"After the hurricane I kept saying if I were rich, I would knock this house down, and rebuild an energy-efficient, elevated house for my mother," Jackson said. "But then to be able to come back as the head of the EPA and say maybe I couldn't help my mother in her one instance, and thank God she is OK, but maybe I can help some people and help my city and help the Gulf Coast. You know even one or two times would make a difference."

**The Eco-Warrior**  
**Rolling Stone**  
**By Tim Dickinson**  
**January 20, 2010**

President Obama has appointed the most progressive EPA chief in history — and she's moving swiftly to clean up the mess left by Bush

When it comes to passing major legislation — reforming health care, reining in Wall Street, curbing climate change — the Obama administration is under fire from all sides for bowing to special interests and conducting government business behind closed doors. But there's one agency where the hope and hype of the campaign trail have transitioned seamlessly into effective governance: the Environmental Protection Agency.

With a minimum of fanfare, new EPA administrator Lisa Jackson has established herself as the agency's most progressive chief ever — and one of the most powerful members of Obama's Cabinet. In her first year on the job, Jackson has not only turned the page on the industry-friendly and often illegal policies of the Bush era, but has embarked on an aggressive campaign to clean up the nation's air and drinking water. Under her leadership, the EPA has sought stricter limits on toxic pollutants like mercury, moved to scrub emissions of arsenic and heavy metals from coal-fired plants, and revoked a permit for the nation's largest mountaintop-removal coal mine. "The American people can be outraged when we're not living up to the P part of our name," Jackson says. "The protection part."

Even more striking, Jackson has expanded the EPA's mandate to include sweeping new powers to crack down on climate-warming pollution from cars and industry. The move, which has the full backing of the White House, could prove to be the only viable way to stop Big Oil and Big Coal from overheating the planet — especially after the disastrous collapse of climate talks in Copenhagen in December. "If Congress doesn't pass legislation on climate change," says Carol Browner, Obama's climate czar, "EPA will follow through under the requirements of the Clean Air Act."

Taken together, Jackson's efforts represent a sweeping attempt to revitalize an agency that was gutted during the Bush years. The goal, as she sees it, is to once again base environmental regulations on science and the law — not on the demands of well-connected industries. "Under Jackson, it's a whole new ballgame," says Eric Schaeffer, who resigned as the agency's director of environmental enforcement in protest over Bush policies. "You now have an EPA administrator who has White House support but is still tough enough to provide an independent voice for the environment."

When Jackson was appointed in December 2008, some prominent environmentalists considered her the wrong person for the job. During her tenure as head of New Jersey's Department of Environmental Protection, they pointed out, the state did such a dismal job of cleaning up toxic Superfund sites that even the Bush administration felt compelled to take them over. In a separate case, Jackson's unit discovered that a day-care facility housed in a former thermometer factory was exposing toddlers to mercury pollution, yet failed to alert parents for more than three months. "Under her watch, New Jersey's environment only got dirtier, incredible as that may seem," Jeff Ruch, president of Public Employees for Environmental Responsibility, said at the time. "If past is prologue, one cannot reasonably expect meaningful change if she is appointed to lead EPA."

In the early going, Ruch's warning appeared prescient. Jackson kicked off her tenure at EPA by greenlighting more than two dozen permits for mountaintop removal coal mining that were held over from the Bush administration. "This mining is devastating Appalachia," warned Robert F. Kennedy Jr. "Everyone expected Obama to do something about it. Instead they're saying, 'We're going to let this happen.'"

Jackson herself now admits that those initial approvals were mishandled. "In hindsight, I certainly wish we could have gone through a longer process on some of those," she says. In September, the EPA put 79 permits for mountaintop removal on hold, pending a review to ensure that each complies with the Clean

Water Act. In an unprecedented move, the agency also revoked a permit for the Spruce No. 1 mine, Appalachia's largest mountaintop-removal operation, observing that it would destroy seven miles of West Virginia streams already ravaged by mining.

In addition, Jackson tells Rolling Stone, the EPA is reviewing the infamous Bush "fill rule" that allows mining companies to bury streams and lakes with mining rubble in the first place. "Staff is working on it now," she says. "We haven't put anything about it out publicly." Jackson says the primary goal is to reform gold mining in Alaska — where miners have begun dumping toxic waste into a pristine lake near Juneau — but adds that the move may also "curtail" mountaintop-removal mining.

Today, environmentalists who fretted openly about Jackson's nomination are almost unanimous in singing her praises. "Parts of the environmental community were skeptical of her appointment," says Buck Parker, former executive director of the environmental-law firm Earthjustice. "But she's fantastic. Gutsy. Acts in accordance with what she says. She's proving to be one of the bright lights of the administration."

Most afternoons, you can find Jackson at EPA's headquarters in the old Post Office headquarters, a marble art-deco monument to an era when postmasters were kings. Her sprawling office is paneled, floor to ceiling, in old-growth walnut, and decorated with bright abstract art from the National Gallery. Near a copy of *The Lorax*, the Dr. Seuss environmental parable, Jackson keeps a photograph of Sen. James Inhofe, perhaps the most rabid anti-environmental zealot in Congress, surrounded by his grandchildren.

"We don't have rancor," Jackson says of the senator, who gave her the photo. "I keep it here to remind me that you gotta work with people. You gotta figure it out."

Jackson has a master's degree in chemical engineering from Princeton, and nearly two decades of experience directing the cleanup of toxic waste. But from her first day, she discovered, her most important skill was her ability to shift the attitude of staffers who remain stuck in the Bush-era mind-set that the EPA should weaken environmental enforcement to satisfy the demands of big polluters.

"Oftentimes we're in a meeting and somebody starts telling me, 'Well, we already know what this official — usually a local official — really wants.' I tell them I don't want to know that," she says. "I want to know what the science says. Even now they're surprised to hear me say that."

To shift the agency's culture, Jackson has moved swiftly to restore top career staffers who were shunted aside during the Bush years. "We call them 'cryogenically frozen,'" says a top aide to Jackson. "We've reactivated a lot of people who were known to disagree with the Bush administration's politics and were hung up in closets." Veteran staffers who have gotten their old jobs back say privately that they spent eight years under Bush "trying to do something good under the radar" — even as they were forced to design programs that "we all knew the courts were going to throw out."

Under Jackson, the agency is once again basing decisions on science rather than politics. "The science is not something the Obama administration feels they have to guard themselves against," says one clean-air staffer who was sidelined under Bush. "Because they are not trying to protect their industry buddies from environmental regulations."

"They have freed up agency employees to do what they're supposed to do: protect public health and the environment," says Jeremy Symons, the EPA's former climate-policy adviser. "And God knows there's a lot of pent-up work behind the dam that needs to be unleashed."

**The Green Fighter**  
**Newsweek**  
**By Daniel Stone**  
**March 29, 2010**

Washington, D.C., is littered with the careers of well-meaning public servants who came to do good but fell victim to politics. Lisa Jackson is determined not to become one of them. As head of the U.S. Environmental Protection Agency, she oversees the quality of America's air and water and monitors pollution levels. It's a job that endears her to green activists (and anyone who likes clean air and water)—but it puts her at odds with some of the nation's largest, richest industries.

For decades, big manufacturers and commercial farmers—who retain powerful lobbyists and make large contributions to the election campaigns of members of Congress—have pushed back against the EPA's efforts to enact stricter controls on pollution. In the George W. Bush years they often got their way, as the EPA rolled back on enforcement.

Now Jackson is out to change that. With the backing of her boss, President Barack Obama, she has announced that unless Congress acts by next January, the EPA will use its authority under America's Clean Air Act to phase in new restrictions on carbon dioxide, the greenhouse gas that contributes to climate change. It's an audacious gambit by a single agency—essentially a threat from Jackson to Congress that unless it gets its act together, she'll move unilaterally. The U.S. emits nearly a quarter of the world's carbon dioxide; late last year EPA scientists identified CO<sub>2</sub> and five other less prominent greenhouse gases as a threat to public health, and Jackson has vowed to cut back on all of them. "The difference between this administration and the last is that we don't believe we have an option to do nothing," she says.

In making her announcement, Jackson and the White House weren't just putting U.S. polluters on notice. They were also sending a symbolic message to Congress and the rest of the world that, 12 years after it refused to sign the Kyoto treaty, and after offering virtually no concessions in Copenhagen, the United States is now taking climate change seriously. It was no coincidence that Jackson released the agency's research on the opening day of December's Copenhagen summit. "These long-overdue findings cement 2009 as the year when the U.S. government began addressing the challenge of greenhouse-gas pollution and seizing the opportunity of clean-energy reform," she said then.

Environmentalists applauded. But three months later, Jackson—a chemical engineer who spent years working within the EPA bureaucracy—is starting to see how difficult that may be to do back home. Already, powerful interests are lining up against the anticipated changes, which she and agency scientists have promised to detail later this year. Industry groups like the American Public Power Association are readying lobbying campaigns to kill or at least slow the impending regulations, and more than 100 agriculture and energy groups have asked Jackson to stand down. "It will create a huge competitive disadvantage to our industry," says Nancy Gravatt, a spokesperson for the American Iron and Steel Institute. "We already filed a legal challenge. The further this gets, the more of that we will be doing. We will continue to contest this."

Politicians on Capitol Hill are also agitating against the cuts. "Getting climate policy right will take a lot of work and should be done by those elected to Congress," says Republican Sen. Lisa Murkowski of Alaska, one of the nation's largest producers of oil and paper. "We may not be moving as fast as some would like, but we are working. And we're trying to make sure we balance our need to curb emissions with our need for a robust and growing economy. That's a balance the EPA can't guarantee."

Jackson knew that threatening to act by executive fiat wouldn't be popular. But she also knew it would get people's attention, and maybe prod Congress to act. She says that she would prefer to go through—instead of around—Congress. "You can definitely cut emissions through regulation, but a much more efficient way is through legislation," she says. For one thing, Congress could sugarcoat a carbon-cutting bill with tax cuts and other incentives, making it easier to get industry on board.

Jackson's do-it-or-else version contains none of that. Yet despite protests by members of Congress that she is infringing on their turf, leaders on Capitol Hill—bogged down with health-care reform and worried about a double-dip recession—have shown little interest in taking action themselves. Republicans, largely skeptical of climate change, are opposed to steep emissions cuts. And even many Democrats who are sympathetic to the cause in principle don't want to make trouble with big employers (and donors) back in their home districts. (Some lawmakers have introduced protest bills that threaten to rewrite the Clean Air Act to curtail the EPA's power, and even to dry up Jackson's budget. The bills aren't expected to go anywhere, although Jackson says she's prepared to fight such measures if they do.)

The members of Congress who do want to act on global warming recognize that pushing for emissions cuts is the last way to win the support of their colleagues. In the Senate, Democrats John Kerry and Joe Lieberman and Republican Lindsey Graham are working on a broad energy bill that will include government subsidies for businesses to use renewable energy sources. But the measure is expected to be lax on actual carbon reductions, and thus is unlikely to make a meaningful dent in the nation's greenhouse-gas emissions.

The big question in Washington isn't whether the EPA has the authority to go it alone and force polluters to change; the U.S. Supreme Court ruled in 2007 that it does. It's whether the White House is actually serious about carrying out Jackson's plan—or if it is just noisily bluffing to get Congress to move, even if it falls short of Jackson's ambitious proposals to monitor the biggest polluters.

The one to watch for that answer isn't Jackson, but Obama. If the January deadline approaches and Congress still hasn't budged, it will fall to him to decide if he has the stomach to make good on Jackson's ultimatum. It wouldn't be a quiet fight. The other side would attack him as anti-business and anti-job—and that would include some Democrats.

Already there are signs that it may not come to that. As Jackson talks tough about deadlines and cuts—trying to convince industry that the administration is standing behind her plan—the president himself has been notably quiet on the question. His aides, meanwhile, are sending signals that Obama is looking for a way to avoid such a showdown. "The president understands that the EPA must follow the science and its legal obligations," says a White House official who spoke under the usual rules of anonymity. "But he has made abundantly clear that his strong preference is for Congress to pass energy and climate legislation." Hardball Washington translation: let's make a deal.

**The Protector**  
**Black Enterprise**  
**By Dale Coachman**  
**April 1, 2010**

Lisa P. Jackson, in her job as head of the Environmental Protection Agency, may seem far removed from the everyday concerns of American people. But nothing could be more false, asserts the EPA administrator. "You just have to realize that the environment is the air you breathe and the water that comes out of your tap." With more than 20 years of experience in environmental protection, and as a married mother of two teenage boys—the younger of whom has asthma and uses an inhaler twice a day—Jackson knows all too well how inextricably the environment is linked to health. She is committed to engaging Americans not only in the health and safety benefits of environmental protection, but also in the economic opportunity in business development and job creation that protecting the environment affords. She also hopes to renew the public's trust in the EPA's work.

Just a year ago, before Jackson was sworn in as the first African American administrator of the EPA, the agency had been called one of the most demoralized in the federal government. But the new administrator's commitment to the environment is unassailable. The White House has sought to empower the EPA to be an enforcer for carbon emissions. At press time, the White House was battling with Congress to determine who will take the lead. "I love to point out that we have 'protection' in our name," says Jackson, who was raised in New Orleans. "If we're not doing it, there is simply no other agency in the federal family whose job it is to protect the environment." The agency's job may have gotten easier: Under the Obama administration, the EPA received a 30% increase in funding—the largest in its history.

To date the EPA has obligated nearly 99% of its Recovery Act funding to states across the nation for a wide variety of projects that will put Americans to work while improving air quality, protecting drinking water, or cleaning up hazardous or blighted land. According to Jackson, the agency's Recovery Act funding has saved or created nearly 6,800 jobs. We talked with Jackson about her vision and goals for the agency in 2010 and beyond.

**Black Enterprise:** Improving air quality and protecting America's water are two of your top priorities. What progress have you made in those areas?

**Administrator Jackson:** Last year EPA initiated a program to monitor air quality around some of the nation's public schools in response to a USA Today article about high levels of particulate matter in the air around the places where our kids go to learn. Parents across the nation read about how children absorb toxic pollutants in the same quantities as adults. In response, EPA launched a nationwide study to test the air around more than 60 schools most at risk.

In December, EPA also proposed new, stricter standards for smog and for NO<sub>2</sub> [nitrogen dioxide, which comes from vehicles and industrial facilities]. Smog, also known as ground-level ozone, is linked to a number of serious health problems ranging from aggravation of asthma to increased risk of premature death in people with heart or lung disease. Short-term exposure to NO<sub>2</sub> has been linked to impaired lung function and increased respiratory infections, especially in people with asthma.

Today, the portfolio of pollution and other challenges around water quality is more varied than it has ever been. Chemicals seep into our water supply from a variety of less conventional places. That's why last year I unveiled the Obama administration's goals for reform of dangerous toxins, chemicals, and pesticides. I also announced plans for a major push to strengthen EPA's current chemical management program and increase the pace of the agency's efforts to address chemicals that pose a risk to the public. We invested \$6 billion in drinking water and wastewater projects to create a stronger infrastructure for clean water, to boost the economy, and to create jobs. I also directed the agency to revamp our enforcement program, because we can have good regulations that protect our water but we must do a good job of enforcing them.

**Black Enterprise:** The Obama administration has earmarked more than \$80 billion of stimulus funding for energy and environmental programs. How closely are you working with the Department of Labor to implement those programs in states and cities?

**Administrator Jackson:** We consider ourselves part of the engine that Labor will need to really make that green economy take hold. The president continually says that the way out of our current economic crisis is the green economy. So when EPA is requiring air pollution controls, there are lots of jobs in the air pollution control industry; and when EPA requires a water plant to upgrade or someone to take action to clean up water, those are all green jobs. When we cut diesel pollution by retrofitting a bus or a garbage truck, those are green jobs. When we ask someone to clean up a Superfund site [land that has been contaminated by hazardous waste and identified by EPA as a candidate for cleanup because it poses a risk to people or the environment] and turn a barren area into an economic engine for a community, all those jobs are potential green jobs. The president has also stressed that these are jobs that can't be outsourced.

We had \$100 million through the Recovery Act for our brownfields [land that is abandoned, idled, or underused; less of an environmental threat, brownfields represent an economic threat since they hinder development and stifle local economies] program to clean up former industrial and commercial sites. The brownfields 2011 proposed budget includes an increase of \$215 million that will be used for planning, cleanup, redevelopment, and job training. Our brownfields job training program prepares workers for jobs in the cleanup and redevelopment of brownfields properties, including abandoned corner gas stations, old textile mills, closed smelters, and abandoned industrial and commercial properties. These investments target underserved and economically disadvantaged neighborhoods, places where environmental cleanups and new jobs are most needed. The brownfields job training program has trained 5,000 people, and more than half have already been placed in full-time employment in the environmental field with an average starting hourly wage of more than \$14.

**Black Enterprise:** As EPA's first black administrator, do you feel it's important for African Americans to get involved with the environment and embrace the clean energy future?

**Administrator Jackson:** We, for too long, falsely believed that the environment is something out there that we didn't need to worry about too much. The environmental justice movement should be credited for making it clear that anything that affects the environment tends to impact people of color and certainly low-income people more. For decades, in our country, factories were located near our communities and it was very different. People should not have to make a choice between a job and the health of their families. I think you can have both. Whatever is coming out of the smokestack or the pipes, whatever ends up on the land, shouldn't threaten their community.

If you're not thinking about energy as a solution, we're going to miss a huge opportunity. The president is calling on Americans to embrace a completely different future. It will be a new economy, and the best thing about a new economy is that it wipes the board clean and allows us an opportunity to get in on the ground floor.

**Black Enterprise:** How do you plan to attract and encourage small business owners? What type of financial or tax incentives will be offered?

**Administrator Jackson:** The Recovery Act includes grants, loans, and tax credits in the clean energy and renewable energy fields. Here at EPA we have a strong small business program. EPA is a place that actually grows business opportunities. We have a home for minority concerns, whether it's contracting, training, or other issues. Of the approximately \$325 million in Recovery Act money obligated under EPA contracts to date, about \$103 million has gone to minority-owned firms, many of which are small businesses. To reach our office of small business programs, call 202-566-2075, or visit our Website, [www.epa.gov/osbp](http://www.epa.gov/osbp), and click on Direct Team.

This article originally appeared in the April 2010 issue of Black Enterprise magazine.

**Lisa Jackson**  
**TIME 100 Issue**  
**Thursday, Apr. 29, 2010**  
**By William D. Ruckelshaus**

Lisa Jackson is doing exactly what an Environmental Protection Agency Administrator is supposed to do — thoughtfully and carefully but aggressively implementing our environmental laws to protect public health and our environment. The job of the EPA Administrator is not to make people happy but to make them and their environment healthier.

She arrives equipped with a rare combination of assets to help her do her job: in equal measure, experience, fairness, sure-footedness, determination and the ability to sound a credible and measured voice in defense of citizens' rights to fresh air, clean water and a stable climate.

A chemist by training, Jackson, 48, grew up in New Orleans, went to Tulane and Princeton and spent 16 years at the EPA before becoming New Jersey's environmental commissioner. She inherited an EPA suffering from a reputation as a political wind sock. It is tempting to conclude that the EPA's authority is drawn primarily from its regulatory power, as indeed much of it is. But Jackson has correctly sensed that restoring public trust in the agency is essential. In this era of growing public mistrust of government, that same public — as well as states, industry, small businesses and, importantly, EPA staff — must have confidence that decisions are being driven by science and an unbiased interpretation of the law, and not a political agenda. Jackson is inspiring this kind of confidence.

Ruckelshaus was the EPA Administrator from 1970 to '73 and 1983 to '85

**The Cleanup Woman**  
**Ebony**  
**May 2010**  
**By Kevin Chappell**

Not many in Washington want to go one-on-one with EPA's Lisa Jackson. We do.

A LITTLE MORE THAN A YEAR INTO THE PRESIDENCY OF BARACK OBAMA, Environmental Protection Agency (EPA) Administrator Lisa P. Jackson has emerged as perhaps the most powerful--and possibly the most vocal--cabinet member in Washington.

While the president slugs it out with Congress on a clean-energy bill, Jackson is moving forward with regulations that accomplish much of the same goals of legislation. Using science as her guide, she has revived the once-sleepy regulatory agency into a force administering eco-justice.

Jackson has already used regulation to implement new fuel efficiency standards on cars, and to start a new system to monitor air quality in 40 of the nation's largest cities. Jackson even joined the Congressional Black Caucus on a tour of Black neighborhoods whose air, water and soil has been contaminated by local industry.

But perhaps one of her biggest accomplishments during her first year on the job was the release of the much-anticipated "endangerment" finding, which concluded that greenhouse gases are a danger to human health and the environment. The release of the report, which was ordered by the Supreme Court almost three years ago, was delayed by the Bush administration. As a result of the finding, Jackson is putting into place a system that could, for the first time, calculate pollutants released by big industries across the country. It is widely seen as the first step in taxing big polluters.

On the eve of the 40th anniversary of Earth Day, Jackson sat down with EBONY to talk about her busy first year, her critics and why she's just getting started.

**EBONY:** As America prepares to celebrate Earth Day's 40th anniversary, what message, as EPA administrator, do you want to get out to the country?

**Administrator Jackson:** That the issues of clean air, clean water and restoring our land have never been more important than they are today. We've made tremendous progress, but there are some major challenges. Smog in our cities, mercury and pollution from our power plants, brownfields, superfund site cleanups and water pollution are increasingly relevant to all Americans, but especially to the African-American community.

**EBONY:** We have the State of the Union, the State of Black America. What is the State of the Environment in 2010?

**Administrator Jackson:** We are in transition. We have made tremendous progress, but we need a couple of game changers. We are in real need of the president's solutions on clean energy. One of the reasons I'm so devoted to getting his agenda through is because I believe it would change our country in so many ways, not the least of which is our environmental health, and the health of our citizens.

**EBONY:** Assess your first year in office. What grade would you give yourself, and why?

**Administrator Jackson:** The first year was a frantic effort to stand up this agency. I feel advantaged because I have worked [here] for a long time. I know its structure. I know its acronyms. I know the laws. I think I have been successful in attracting the very best talents to work at the highest levels of this agency. [The EPA] was deprioritized in the last administration. I had the challenge of building morale inside these four walls, and building the American peoples' trust in this agency. I think it is a testament to how hard we have worked that we now have people trying to attack our credibility. We have said that we are going to rely on science and the law. We've seen that echoed all over ... people are saying that that's the thing that

resonates. So I would say that we've done a good job, a solid "B," of beginning to turn things around.

**EBONY:** You've spent much of your first year undoing George W. Bush's policies. What are some of the biggest policies you've changed, and why?

**JACKSON:** The biggest has to be the change in this agency's attitude toward climate change and toward greenhouse gas pollution. Under the Bush administration, there was a very conscious effort to not have the EPA engage in a regulatory fashion on those issues. The president has made it clear that climate change is a part of his agenda. The Bush administration denied the state of California's waiver to require cleaner cars, and the president ordered me to [re-examine] that. As a result, we did a 180-degree turn. That led to a deal that for the first time has put this country on a predictable path to have cleaner cars, starting in 2012. For the first time ever, we finalized rules to require large industries to report their greenhouse gas emissions. Another big one, especially to African-Americans, is the renewed focus on disproportionately impacted populations, the so-called environmental justice and children's health emphasis. I now have a senior advisor on environmental justice.

**EBONY:** How much harm did Bush administration policies do to the environment?

**JACKSON:** I can't give it a number, but we lost eight years of air protection. We know that every year, people die or are hospitalized because of smog. We lost eight years of not addressing smog in an aggressive way. Eight years that we'll never get back, no matter what we do in the Obama administration. We've lost eight years of pushing technology out the door to get some of these old factories and power plants cleaned up. I think that's a tragedy.

**EBONY:** Can you accomplish your goals on climate change and emissions without any legislation being passed in Congress?

**JACKSON:** The absolute best way for the country is to have legislation because it settles legal questions and lawsuits once and for all. It represents the best in our democratic process, where we all come together and vote on the laws of the land. But there's a lot of good work--the car rule, the reporting rule--all of that is happening under our current authority. All of the work that we've done so far is complementary to legislation that may pass. We know that's a part of the president's plan.

**EBONY:** You attended the U.N. Climate Change Conference in Copenhagen last December. Did you come away from it with a genuine feeling that the world is serious about confronting climate change?

**JACKSON:** There is the will to do it. I wasn't party to the talks. I wasn't a delegate. But what struck me the most was that the big, developing countries were there, China and India. And I had talks with them. But I also had side meetings with grassroots groups from other countries, nations in Africa and other regions that are going to be horribly hit as the climate changes. This is a global phenomenon. So much of what I do is deal with air pollution here. What I took from the meeting was to remember that the air does move around, and that one of the reasons we have to be concerned is that people of color are going to be the biggest losers in the climate-change gamble. It was moving to hear people talk about what it's already done, to see nations that already have to deal with flooding and drought.

**EBONY:** When many African-Americans think about Earth Day and the whole green movement, we often think about folks who drive hybrids and eat tofu. How do you bring the message of conservation and being friendly to the environment down to the street level, broaden the tent to the extent that average people can understand what's truly at stake, and how they can have an impact?

**JACKSON:** We have to speak about issues that Black Americans care about. We too often speak about the environment in ways that only an environmentalist could love. The young generation talks about sustainability and being green. We're going to have whole generations that come up and not know what plastic grocery bags are, potentially. They're pretty much going to think paper mail is a thing of the past. Don't think that this isn't going to be inbred in our children. That's why I talk to people about air pollution. Everybody breathes, right? More and more, I think the Black community has come to realize that we are

on the short end of the stick when it comes to where facilities are located. We're on the wrong end of the tracks, as they say in the South. We happen to be the community that got the incinerator or the new power plant. But that was 60 years ago, and now that power plant is really old and we're still suffering with the emissions because it has never been upgraded. I think there are a lot of communities out there that do get it, but we've never, as a people, had a national movement that ties us all together and magnifies those community struggles.

**EBONY:** What specific policies have you implemented that directly affect African-American communities, and which specific cities or neighborhoods have benefited as a result?

**JACKSON:** The president's budget for 2011 includes tens of millions of dollars more for brownfield [site] cleanups and work at the community level to empower communities for cleanup. Let's look at our recently published finalized rule for short-term and O<sub>2</sub> [oxygen] pollution. For the first time ever, that rule includes 40 air-monitoring stations that will be set up across the country in communities that suffer most from pollution that comes from power plants and cars. In a lot of places, because of a history of racism, roads were put through Black communities. This agency is mandating monitoring to see whether communities along those roadsides are up to national air standards. Another one that I am really proud of is the proposed tightening of the smog standards. We haven't finalized that yet. But smog kills, and it is the reason why we have disproportionately high levels of asthma in the Black community.

**EBONY:** You're a native of New Orleans. Were you more excited when you were named EPA administrator or when the Saints won the Super Bowl?

**JACKSON:** [Pauses, then bites her lip] I love my Saints. [Pauses again] I don't know what to say. [Laughs] I have to go with my Saints.

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**Lovely & Amazing: The Women in DC Power List**  
**Elle Magazine**  
**By Lisa DePaulo**  
**November 24, 2010**

Lisa Jackson: The Eco-Chief

Three years before Barack Obama chose her as a member of his cabinet—the first person of African-American descent to serve as EPA administrator—Lisa Perez Jackson went to New Orleans to visit her mother, the woman who adopted her when she was less than a month old from an orphanage in Philadelphia, “who made one unselfish decision that changed my life.” It was her mother’s 77th birthday. It was also August 27, 2005—two days before Katrina hit. She lived in the Ninth Ward, where Jackson was raised. Her dad was a mailman, her mother a secretary. The future EPA administrator spent her mother’s birthday driving her the hell out of New Orleans. When Katrina hit, two days later, “the house I grew up in and where my mother raised all her family was under water for two, three weeks. I always say ‘destroyed,’ but you can actually go and physically see the shell of it.”

You might say she was uniquely qualified to head the EPA. In addition to her lofty degrees—summa cum laude from Tulane, a master’s in chemical engineering from Princeton—she was head of the New Jersey Department of Environmental Protection (imagine that agenda) and chief of staff to then-NJ governor Jon Corzine. But after Katrina, and she got her mother safely out, she felt “a real pull to move—to sort of give up the life and move back to New Orleans and help.” Her mother talked her out of it. “She was very adamant: ‘Don’t go back, I’m not there. Why would you go back?’ And ironically, five years go by and now I’m the head of the EPA when we have the Gulf oil spill. So perhaps I wasn’t supposed to go back. Maybe Katrina wasn’t the right time, but I certainly don’t intend to waste the opportunity to try to help the Gulf Coast region now.”

What she almost did instead: She originally wanted to be a medical doctor, until she became enamored with engineering. "So it's not an accident that my job description is to protect human health." But she also knew she didn't want to be in a cubicle. "I like people too much."

Fun fact: You should have seen her dance to Pandora at the photo shoot at 7 a.m. She has a style and a joie de vivre that is both refreshing for Washington and pretty cool for female cabinet members. (Remember all the hoo-hah over Madelaine Albright's pins?)

What she had to learn: "I think, sadly, still, in this day and age, people make their first impressions based on how you look. So I have had to do things like learn how to apply makeup, learn how to do it for TV," she says, laughing, "and to make sure that I don't resent the fact that I want people to hear the words coming out of my mouth, but I have to first make sure they keep the TV on!"

What the head of the EPA does to keep potentially harmful chemicals out of her body: "No heating food in plastic containers in the microwave! Everybody has their own little thing, that's one of mine."

Lessons she learned from the Gulf Oil Spill: "Preparedness. You can't be prepared for something you haven't thought about. It's such a wake-up call to remember that on top of all the work we do every day at the EPA—protecting air quality, protecting water quality, and toxic chemicals—now we also have to remember that we have to be able to respond."

Her prognosis on the Gulf now: "I like to say it's too soon to write the story. I don't think prognoses are appreciated. Because I think the people down there, you know, they do have a level of distrust in government, they don't want to be painted a rosy picture, and they deserve not to have a pessimistic picture painted. What they need and should have is just data and an assurance that the government has a network of getting information and giving them the truth. A science based, fact-based truth. So I don't like to speculate except to say that I do think the response was effective. Nothing good happens once the oil starts to spill. So it becomes a matter of trying to choose between a whole bunch of outcomes."

Her most pressing concern besides the gulf: Toxic chemicals.

What the average person can do: "Environmental change happens when people rise up and say, 'This is not an acceptable situation. I want cleaner water and I want products and food that are healthy.'"

Best advice she got from a former cabinet member: "When you do your job right, you find the right balance between managing internally with your EPA staff, and managing externally with all the people in Washington."

**EPA chief Lisa Jackson braces for battle with Congress over climate change regulations**  
**New Jersey Star-Ledger**  
**December 12, 2010, 5:55 AM**  
**By Tom Moran**

Environmental Protection Agency Administrator Lisa Jackson will be in the line of fire as she tries to enforce regulations that help curb climate control in the face of opposition from Republicans and coal-state Democrats.

WASHINGTON — President Obama summoned EPA chief Lisa Jackson to the White House recently to discuss ways to breathe new life into the moribund fight against climate change.

The effort in Congress is lost. But how could they back off when so many scientists were warning of a potential disaster?

They agreed instead to escalate — to use the raw power of Jackson's regulatory hammer — whether Congress likes it or not.

"We both would prefer to see legislation," Jackson says. "But he said there are a series of steps we will move on."

And they are potent steps. Under the Clean Air Act, the Environmental Protection Agency has authority to order massive cleanups at power plants and oil refineries, and to reshape the nation's fleet of cars and trucks.

Congress will try to stop her, and she knows that. Republican leaders joke that they are reserving a parking space for her because she'll have to make frequent stops to justify her every move. They threaten legislation to scale back her authority, or to cut her budget until she submits. In the competition for new chairmanships, breathing fire against the EPA is a plus.

"The new Republican majority will be putting these, and many other EPA proposals, under a microscope," vows Rep. Jerry Lewis of California, the senior Republican on the appropriations committee.

What this means is that the fight against climate change is about to land squarely on Jackson's desk.

An African-American who grew up in New Orleans, her background is in science. But it is her political skills that are about to face a test.

Can she navigate around the new Republican majority and their Democratic allies from coal states? Or will this phase of the fight against climate change end in failure, too?

"Lisa Jackson is the single most important person in America right now when it comes to dealing with climate change," says Frank O'Donnell, head of Clean Air Watch, a leading environmental lobby. "Congress has dropped the baton. And now Lisa Jackson needs to pick it up."

WHEN JACKSON LEFT NEW JERSEY as head of the Department of Environmental Protection, she landed in the EPA's stone fortress in downtown Washington, two blocks from the White House.

Built for the postmaster general, back when the Post Office was the richest source of federal patronage jobs, it is big enough to play catch with a baseball and its dark-wood panels stretch to a high ceiling that ensures tremendous waste of heat.

"It's historic, so I can't even change these to efficient light bulbs," Jackson says of the sconces near the fireplace.

But she has changed a great deal at the EPA. The agency's staff was famously discontent in the Bush years, when political appointees often overruled staff to protect business from costly regulations.

Today, the EPA is one of the few agencies that has lived up to the Obama administration's progressive hype.

Earlier this year, Jackson pushed through the first-ever controls on greenhouse gas emissions in cars, along with much tougher mileage standards. She has forced reductions in mercury, lead and arsenic, while requiring more disclosure on the use of chemicals. She has sharply cut back mountaintop coal mining, which has been a disaster for water supplies in Appalachia. And she will soon release the toughest-ever standards on smog.

Most of this she's done quietly without picking needless fights.

"She understands that her opponents are not demons. It's not like they're trying to kill children," says Dale Bryk, director of air and energy programs at the Natural Resources Defense Council. "And it's easier to find common ground if the other person doesn't think you're an idiot or a murderer. It's basic respect. That's what we aspire to, and I think she does as well."

That was a mark of Jackson's style when she was New Jersey's DEP chief under former Gov. Jon Corzine. She was that rare figure in Trenton who won respect even from industry groups she battled.

"We always got a chance to make our point," says Hal Bozarth of the Chemical Industry Council. "Sometimes we won, and sometimes we didn't. But I like her."

On a bookshelf in Jackson's office is a family portrait given to her by Sen. James Inhofe, a Republican from Oklahoma who famously called global warming "the greatest hoax ever perpetrated on the American people."

Inhofe will be a leader in the effort to beat back Jackson's efforts. But there is his family, smiling down at Jackson as she arrives at work every day.

"There is not an insincere bone in him," she says. "I have a lot of respect for people who are honestly reflecting their own belief system, as opposed to those who might be more cynically motivated."

We'll see if the love lasts. Jackson comes across as entirely cool under the pressure she faces, making effective moves like a person who spent her life in Washington politics.

But in about three weeks, the fight will escalate. That's when new regulations will kick in requiring large polluters such as power plants and oil refineries to work to reduce emissions.

These cleanups can be enormously costly and industry groups are mobilized to fight. As they spread their money around town, sincere climate-deniers such as Inhofe will get a lot of help from those who are, as Jackson puts it, "more cynically motivated."

THE AIR WE BREATHE today is much cleaner than it was a generation ago for one main reason — the Clean Air Act, probably the most important piece of environmental legislation ever.

It was drafted 40 years ago, long before climate change was on the radar. But its mandate for the EPA is broad — to protect the public health. And in 2007, the Supreme Court ruled that the EPA must determine whether global warming threatens public health and, if so, to regulate emissions.

That's the power Jackson drew on to limit emissions from cars and trucks this year, and to go after power plants and oil refineries next.

The folks at the American Petroleum Institute are not amused. In their view, Jackson has gone rogue and is inventing powers for the agency.

"It's best to leave this to Congress," says Howard Feldman, a spokesman for API. "There are a lot of avenues we will use to try to stop this."

It begins with a pending lawsuit that aims to block the new regulations. If that fails, Congress could explicitly remove this power from the EPA. And if Obama vetoes that, climate skeptics could attach the bill to spending measures that would be tougher to veto.

"I'm supportive of the EPA power, and I think we have the votes to sustain it," says Sen. Robert Menendez (D-N.J.). "But it will be close."

Jackson takes the historical view.

When the EPA required catalytic converters on cars, the auto industry predicted a "collapse." But it adjusted and innovated, and now America exports those converters to the world. The same pattern held when the EPA phased out the use of CFCs in refrigerators.

Still, Jackson's chances of success are shaky. She recently delayed imposing tougher standards on smog and industrial boilers, moves that even her fans saw as a political retreat.

She concedes that the coalition arrayed against her is a potent one, but if she is rattled at all, it doesn't show. She will take her shot at this, and she seems to think she might win in the end.

"It is a little like David vs. Goliath," she says.

"But there's a history of that in the environmental movement, of us proving you can make progress in the face of a lot of naysayers."

01268-EPA-981

**David  
McIntosh/DC/USEPA/US**  
02/06/2011 02:03 PM

To "Richard Windsor"  
cc "Seth Oster", Arvin Ganesan  
bcc

Subject please review this revised draft of your opening statement

Administrator,

Attached, please find a revised and completed (including extensive footnotes) draft of your opening statement for Wednesday's hearing. If it's acceptable to you, I'd like to circulate it internally now for a final technical and legal check.

Thanks,

David

(b) (5)

Deliberative

Opening Statement of Administrator Jackson.docx

01268-EPA-984

Arvin Ganesan/DC/USEPA/US

To Bicky Corman, Bob Perciasepe, Bob Sussman, David McIntosh, Diane Thompson, Michael Goo, Richard Windsor, Seth Oster

02/08/2011 06:24 PM

cc

bcc

Subject Re: Toxics Narrative - draft 1

Evening,  
I'm checking in on this. I haven't heard from anyone, aside from David and Seth on this. Any thoughts or edits?

Thanks.

-----  
ARVIN R. GANESAN  
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Arvin Ganesan

(b) (5) Deliberative

02/01/2011 10:33:06 AM

From: Arvin Ganesan/DC/USEPA/US  
To: Diane Thompson/DC/USEPA/US@EPA, David McIntosh/DC/USEPA/US@EPA, Seth Oster/DC/USEPA/US@EPA, Michael Goo/DC/USEPA/US@EPA, Bicky Corman/DC/USEPA/US@EPA, Bob Perciasepe/DC/USEPA/US@EPA, Bob Sussman/DC/USEPA/US@EPA  
Cc: Richard Windsor/DC/USEPA/US@EPA  
Date: 02/01/2011 10:33 AM  
Subject: Toxics Narrative - draft 1

(b) (5) Deliberative  
[Redacted]

(b) (5) Deliberative

Thanks. 020111 Toxics Narrative ARG1.doc

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01268-EPA-987

**Charles  
Imohiosen/DC/USEPA/US**  
02/10/2011 05:54 PM

To Richard Windsor, Bob Perciasepe, Bob Sussman, David  
McIntosh, Diane Thompson  
cc  
bcc

Subject Fw: Attached Find Document Coal Companies Using on  
Capitol Hill

From a friend at Constellation Energy ...

Charles Imohiosen  
Counselor to the Deputy Administrator  
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----- Forwarded by Charles Imohiosen/DC/USEPA/US on 02/10/2011 05:54 PM -----

From: "Miller, Bryan S (CEG)" <Bryan.Miller@constellation.com>  
To: Charles Imohiosen/DC/USEPA/US@EPA  
Date: 02/10/2011 05:13 PM  
Subject: FW: Attached Find Document Coal Companies Using on Capitol Hill

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**From:** Michael Bradley [mailto:mbradley@mjbradley.com]  
**Sent:** Thursday, February 10, 2011 5:02 PM  
**Subject:** Attached Find Document Coal Companies Using on Capitol Hill

Attached please find a document that we discovered was being distributed on the Hill recently, we believe by Peabody Coal. We expect to see more of this type of analysis and would like to develop a plan of response. We will get back to you after you've had a chance to digest this.

Michael

>>> This e-mail and any attachments are confidential, may contain legal, professional or other privileged information, and are intended solely for the addressee. If you are not the intended recipient, do not use the information in this e-mail in any way, delete this e-mail and notify the



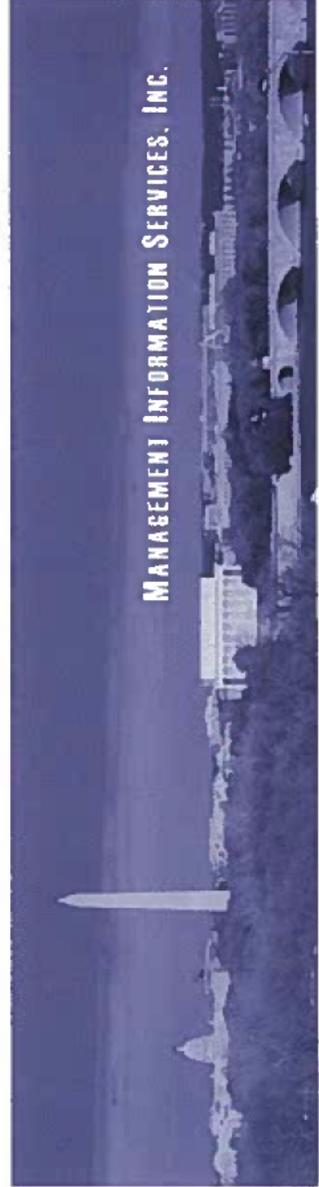
sender. CEG-IP2 Coal - epasides40.pdf

# **IMPENDING EPA COAL REGULATIONS: DISASTER FOR THE MIDWEST – DETAILED ANALYSIS**

**January 2011**

**Prepared by**

**Roger H. Bezdek, Ph.D., President  
Management Information Services, Inc.  
Washington, D.C.  
rbezdek@misi-net.com**

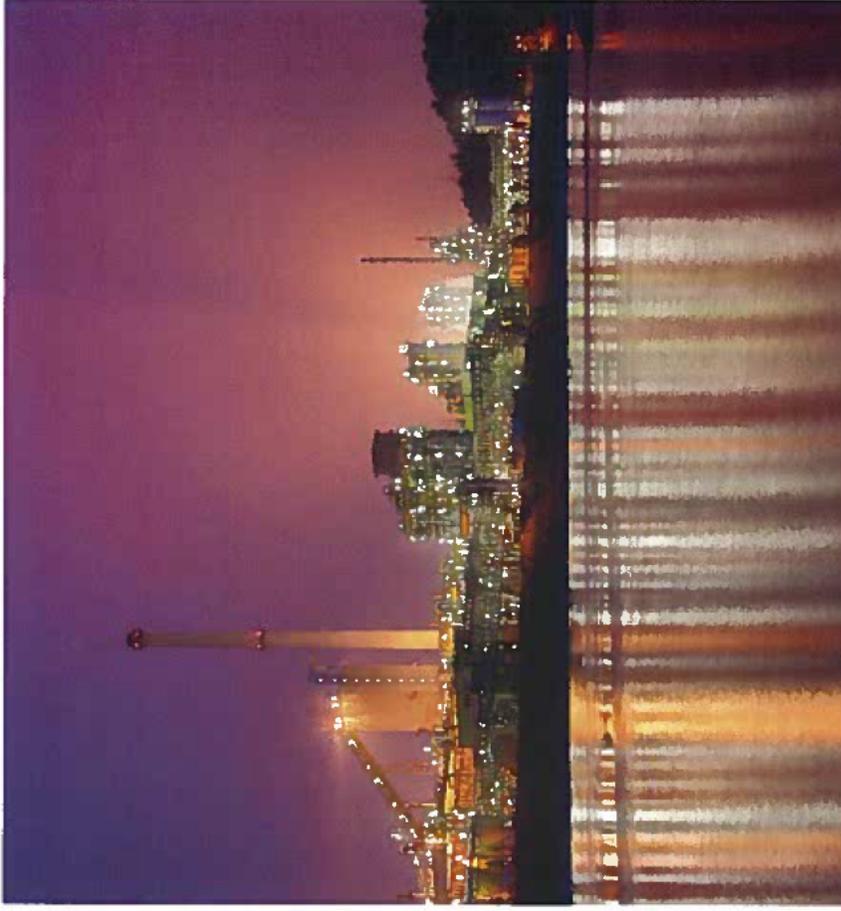


## **IMPENDING EPA COAL REGULATIONS**

- **EPA coal regulations**
  - These are already scheduled
  - Timetables are set
- **Unprecedented number & scope of simultaneous regulations**
- These will significantly reduce coal-fired electricity generation & greatly increase electricity costs
- **Result will be economic disaster – especially for Midwest consumers**

## **EPA RULEMAKINGS: WHAT AND WHEN?**

- **EPA regulations in 5 areas:**
  - **Conventional air pollutants (SO<sub>2</sub>, NO<sub>x</sub> and PM)**
  - **Mercury and other hazardous air pollutants (HAPS)**
  - **Coal combustion residuals (coal ash)**
  - **Power plant cooling water intake structures**
  - **Greenhouse gases (GHGs)**



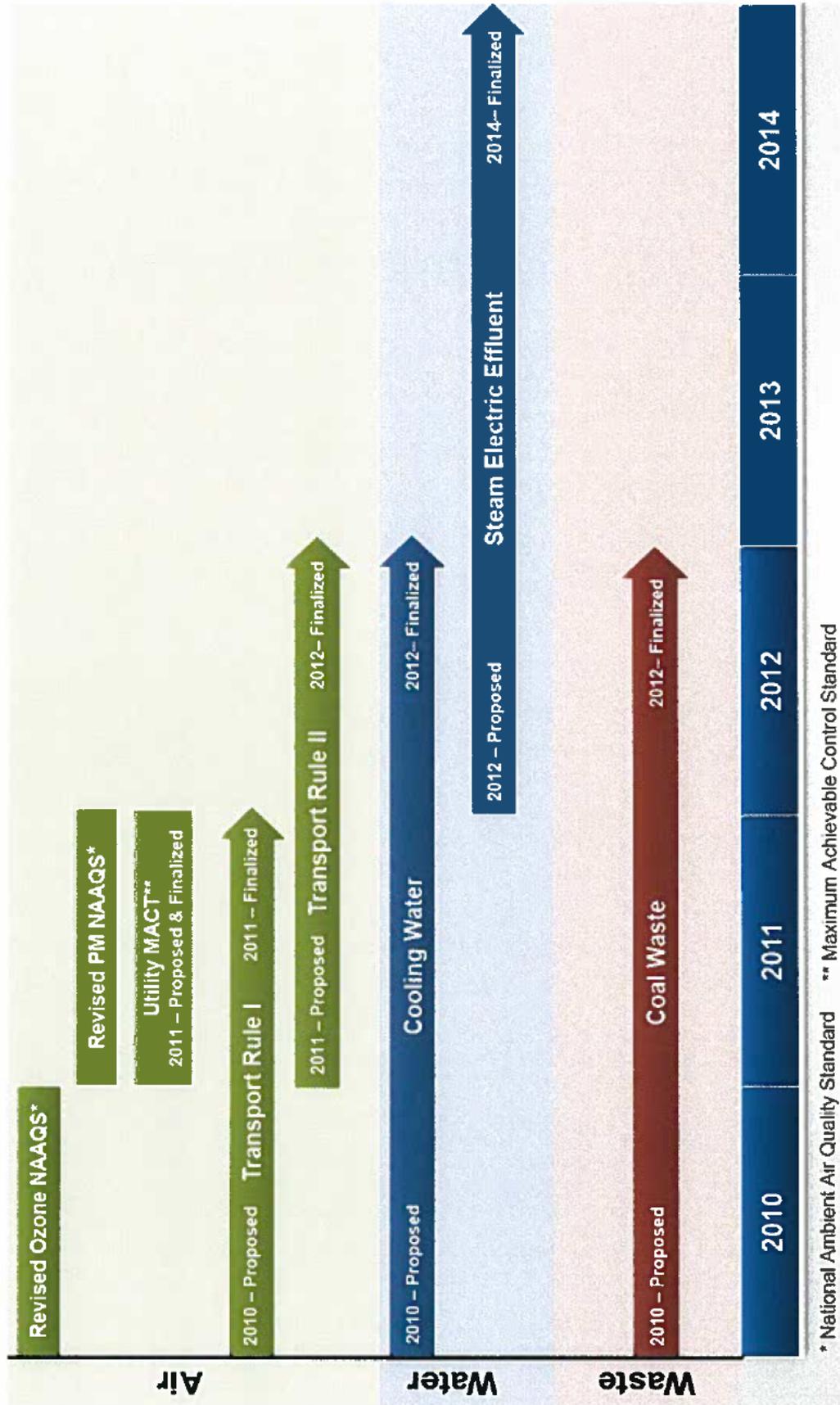
# EPA RULES WILL IMPACT ALL US COAL-FIRED POWER PLANTS

## When are the important dates?

- EPA announced actions:
- Rules proposed (2010 – 2012)
- Rules finalized (2011 – 2014)
- Compliance deadlines (2012 – 2020)\*

\* Deadlines dependant upon time when the final rules are published and if the President or implementing state exercise authority to extend deadlines

# EPA DATES FOR PROPOSED & FINAL RULES: SCOPE OF IMPENDING TRAIN WRECK



\* National Ambient Air Quality Standard    \*\* Maximum Achievable Control Standard

## IMPACT OF EPA REGS

- EPA regs will penalize coal
- This will force use of more expensive, intermittent, and unreliable electricity fuels – especially natural gas
- Electricity prices will skyrocket
- This is key, because **electricity is critical to U.S. economy**
- Increased electricity costs and reduced reliability will harm U.S. consumers & businesses

The National Academy of Engineering identified electrification as the “most significant engineering achievement of the 20th Century” (2000)

# ELECTRICITY HAS CREATED, SHAPED, & DEFINED U.S. SOCIETY

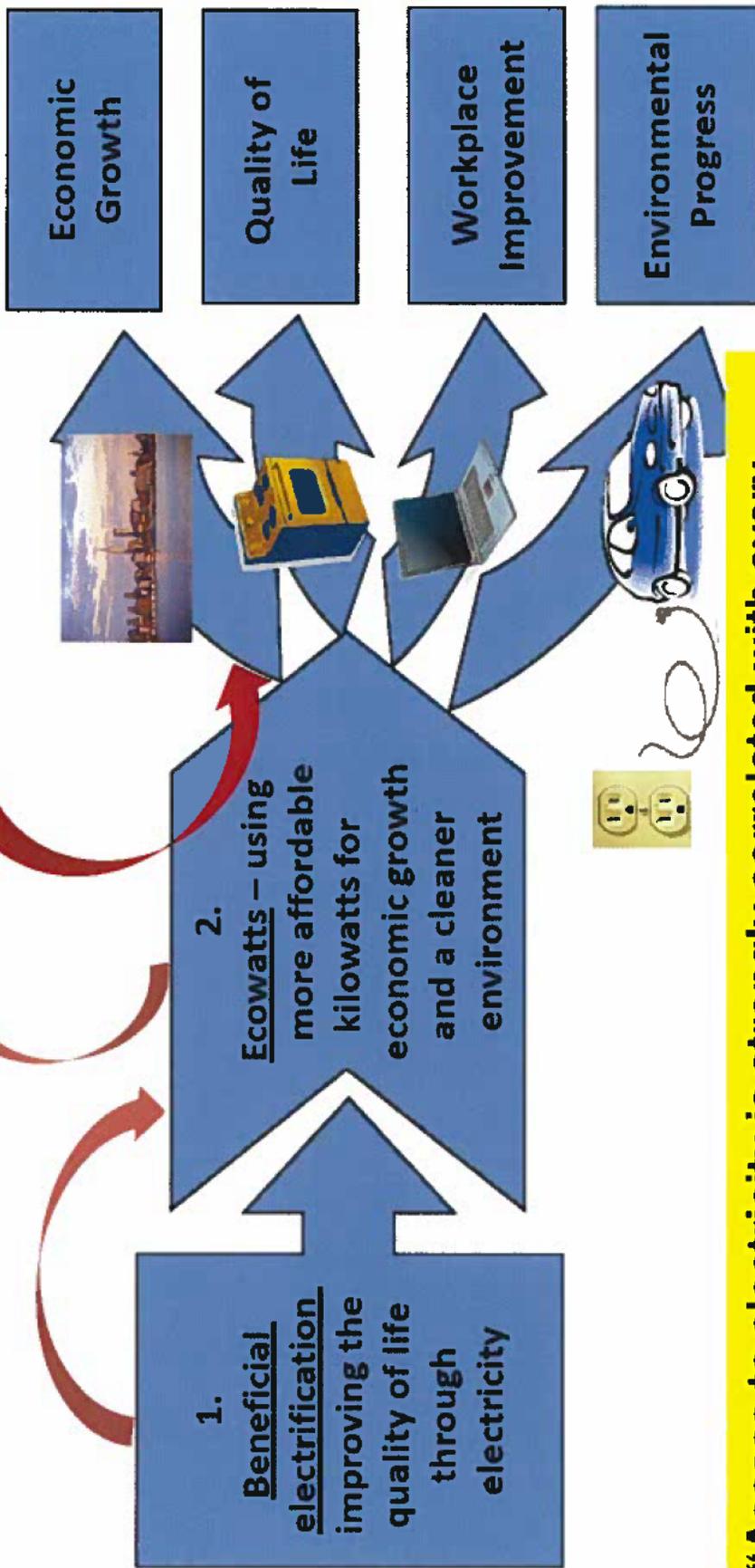
Economic growth and electricity usage are closely correlated, & electricity has enabled virtually every technological achievement of the past 100 years, transforming:

- Industry
- Commerce
- Agriculture
- Transportation
- Medicine
- Communications



# ELECTRIFICATION: BENEFITS FOR U.S.

**Electrotechnologies** -- driving the application of ecowatts to create benefits for all Americans



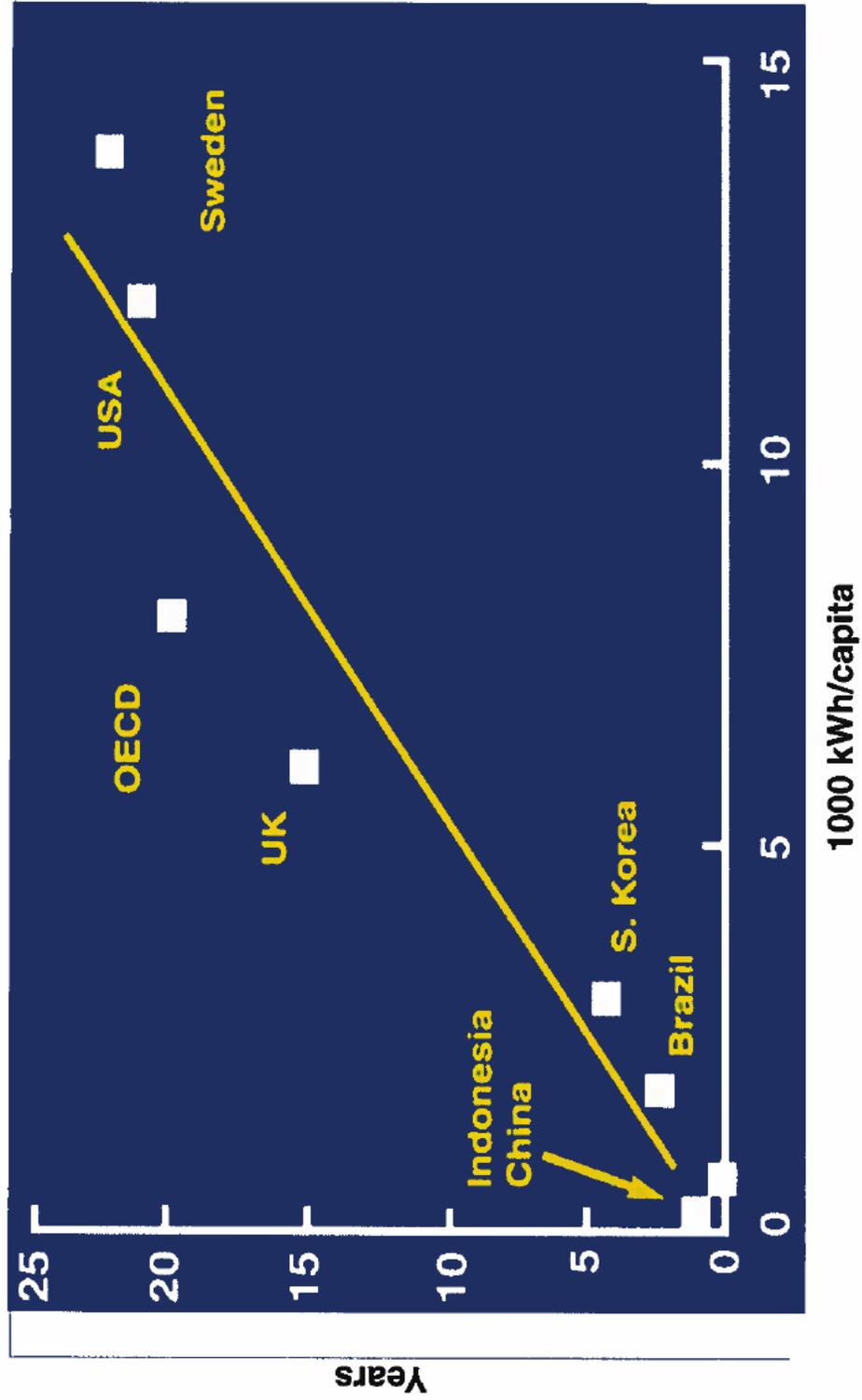
**“Access to electricity is strongly correlated with every measurable indicator of human development” -- Berkeley Science Review, 2008**

# ELECTRICITY ESSENTIAL TO U.S. ECONOMY

- **Electricity created U.S cities:** Climate control, lighting, elevators
- **Air conditioning** led to huge U.S. geographic population shifts
- Electricity made the **assembly line and mass production** possible
- **Refrigeration & sanitation** technologies made the modern food industries possible – & vastly increased human health and safety
- Electricity revolutionized **transportation**: Vehicles, airlines, mass transit, telecommuting
- Electricity revolutionized **medicine** & greatly increased Americans' health & life spans
- Electricity revolutionized **agriculture**, reducing the required agricultural labor force by 95%
- Electricity created the "**global village**:" Telephone, radio, television, FAX, computers, Internet, IT, satellites, email, social networks, etc.

# ELECTRICITY FUELS & SUSTAINS U.S. PROSPERITY

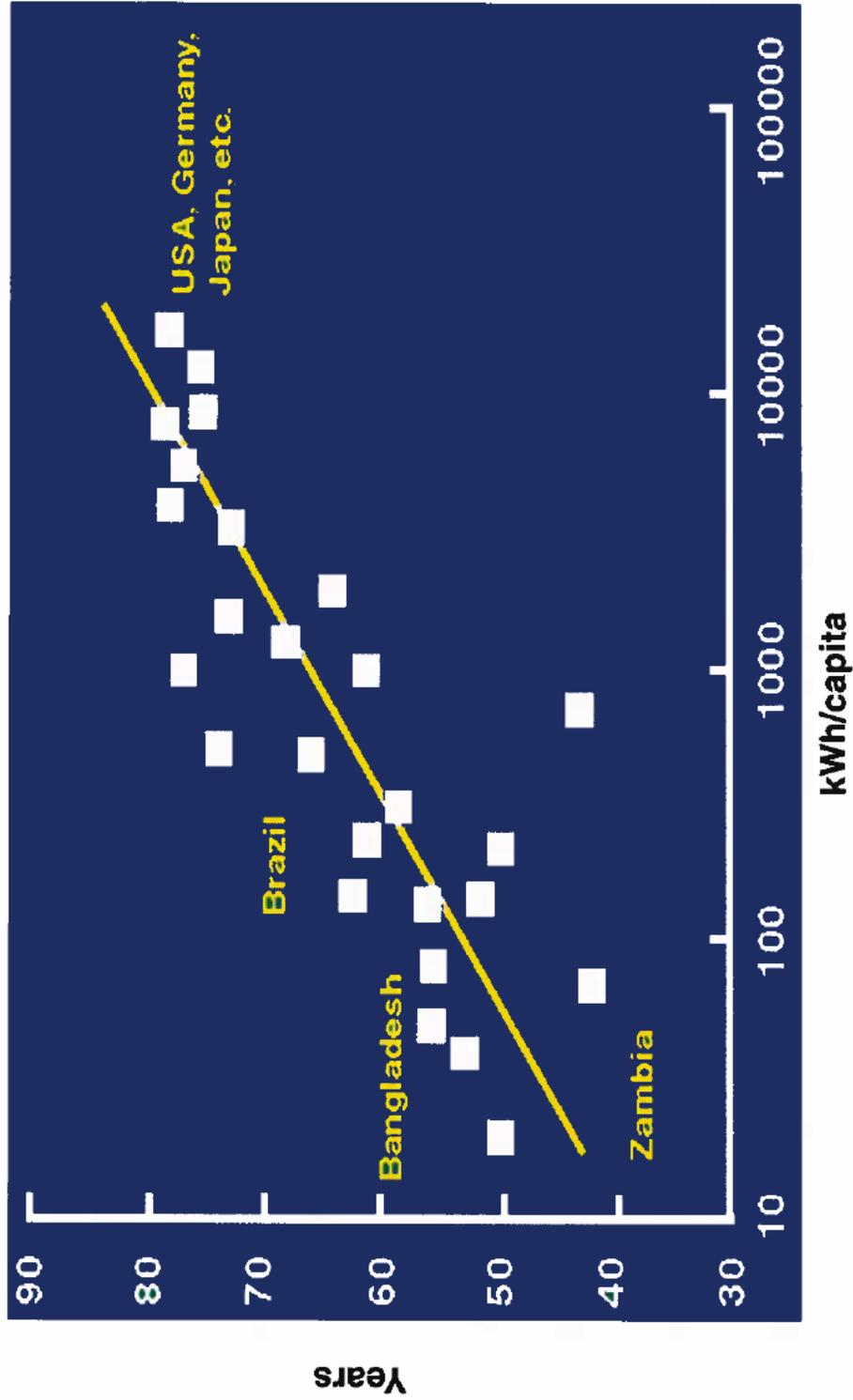
*Wealth Expands with Greater Electricity Use*



Source: World Resources Institute, IEEE Spectrum

# ELECTRICITY FACILITATES INCREASED AMERICANS' HEALTH & WELL-BEING

*Longevity Expands with Greater Electricity Use*



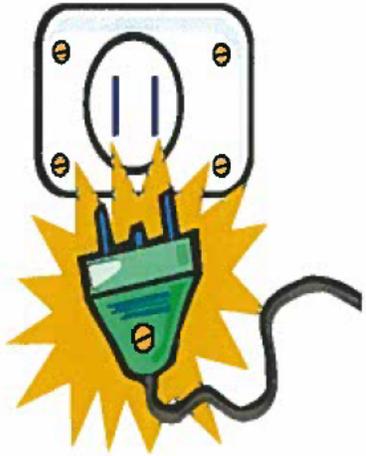
Source: World Resources Institute, IEEE Spectrum

# ELECTRICITY WILL BE INCREASINGLY IMPORTANT IN 21ST CENTURY

Examples of **electricity's potential this century** to address:

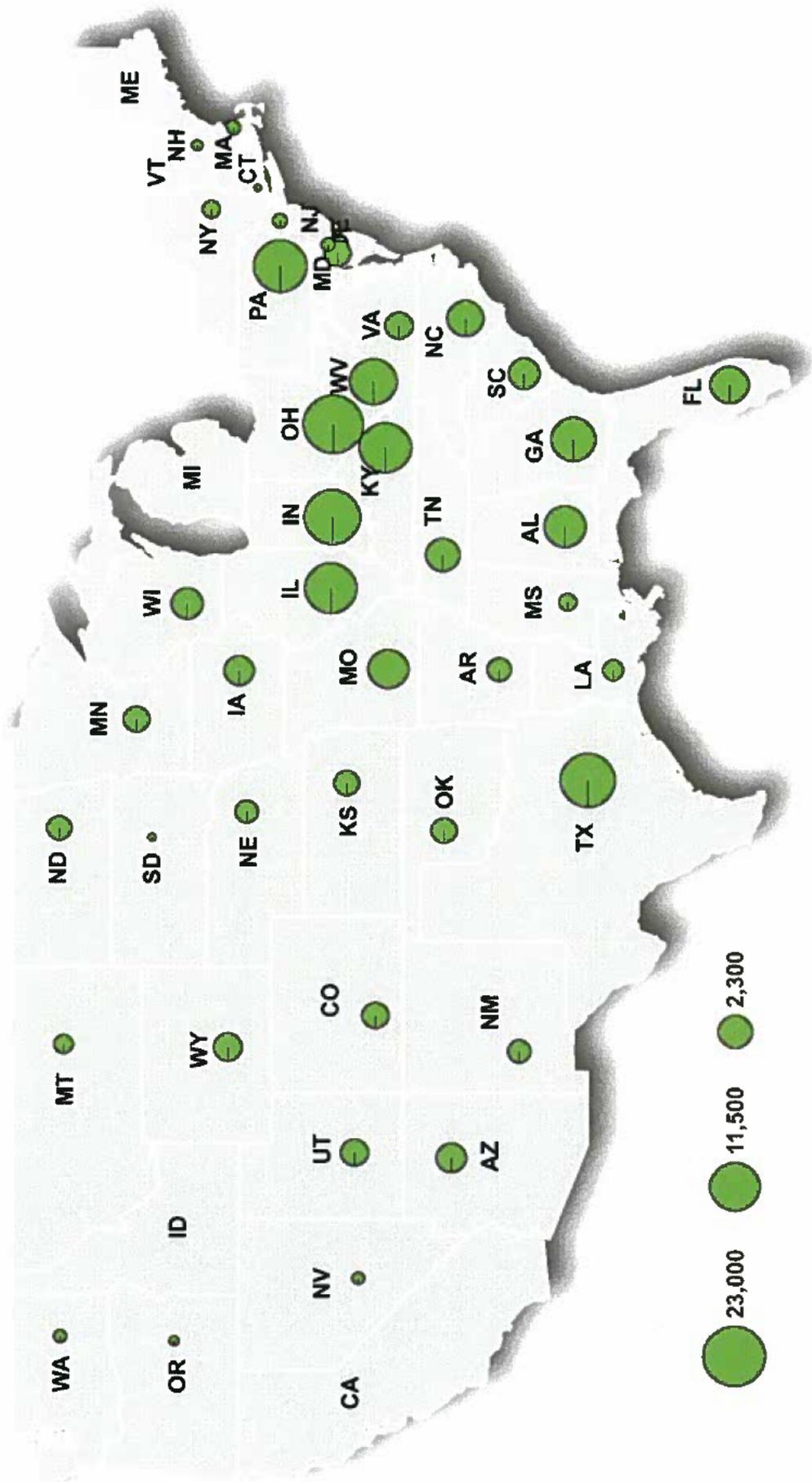
- Energy challenges, electricity use, and energy conservation
- Environmental, sustainability, & climate issues
- Economic development
- Transportation issues
- Improving people's standard of living
- Health, medicine, and bio-tech
- Continuing developments in communications, IT, etc.
- The productivity challenge, electricity use, and productivity growth
- Others: Emerging electro-technologies, new industries, nanotechnology, robotics, superconductivity, space exploration, etc.

## ELECTRICITY



**However, Adequate, Reliable, Affordable U.S. Electricity Supply is Essential**

# DIFFERENT REGIONS AT RISK FROM EPA REGS (2010 Coal-fired Capacity)

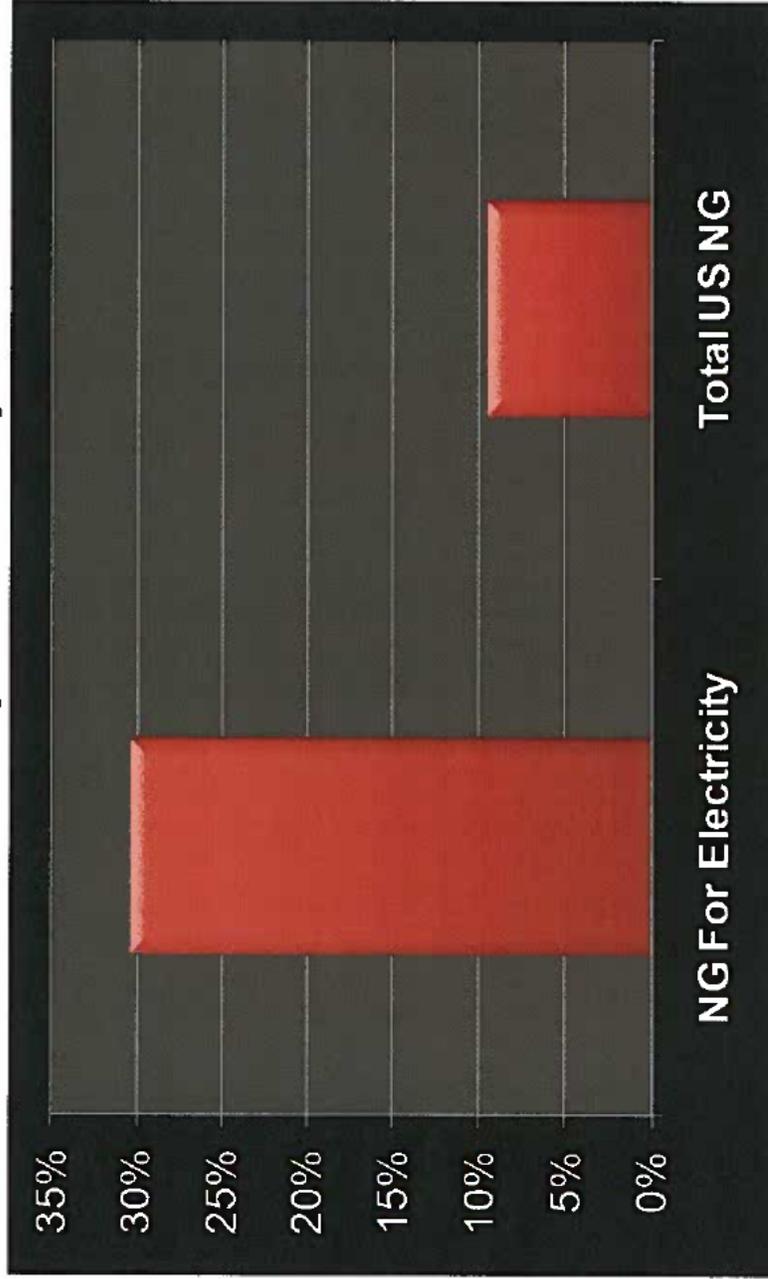


## REPLACE COAL WITH NATURAL GAS?

- Nationwide, 30 GW – 90 GW of coal capacity may have to be retired
- **Natural gas (NG) advocated as replacement for coal-fired generation**
- This is not feasible
- However, here we assume that ~ 50 GW of coal is retired and replaced by NG
- This will require huge increase in NG use:
  - > 30% increase in NG used for electricity production
  - ~ 10% increase in total U.S. NG consumption
- **This huge increase in demand will increase NG prices and price volatility**

# MAGNITUDE OF NATURAL GAS REQUIRED

## Increase in Natural Gas Required to Replace 50 GW of Coal

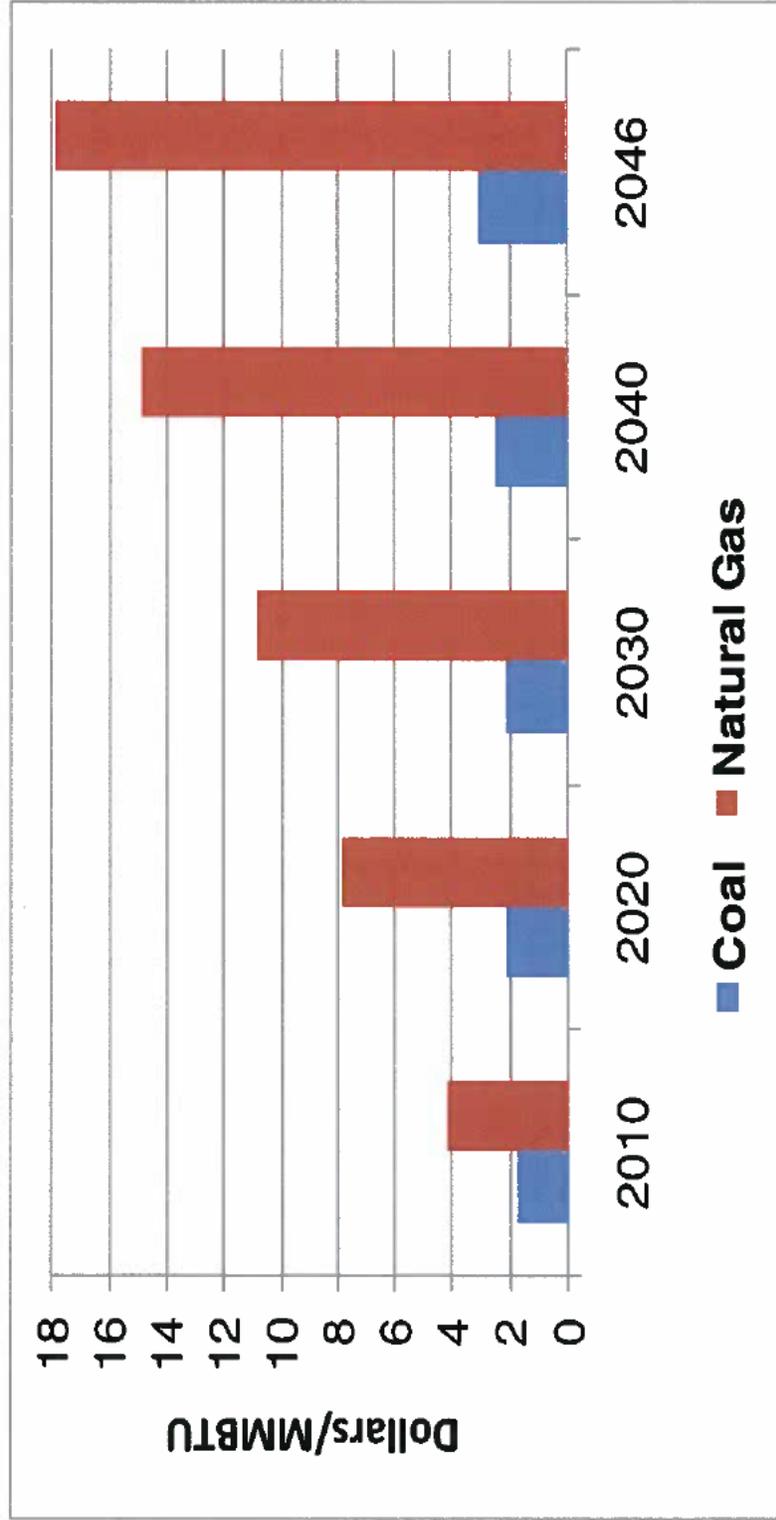


**Amount of NG Required Equals All of US Incremental NG Production EIA Forecasts Through 2025**

# WHAT WILL FUTURE NG PRICE BE?

Xcel Energy forecasts huge increases in NG costs: NG goes from being twice as expensive as coal in 2010 to 3.5 times as expensive in 2015 (& 6 times as expensive by 2040)

### Xcel Fuel Cost Forecasts



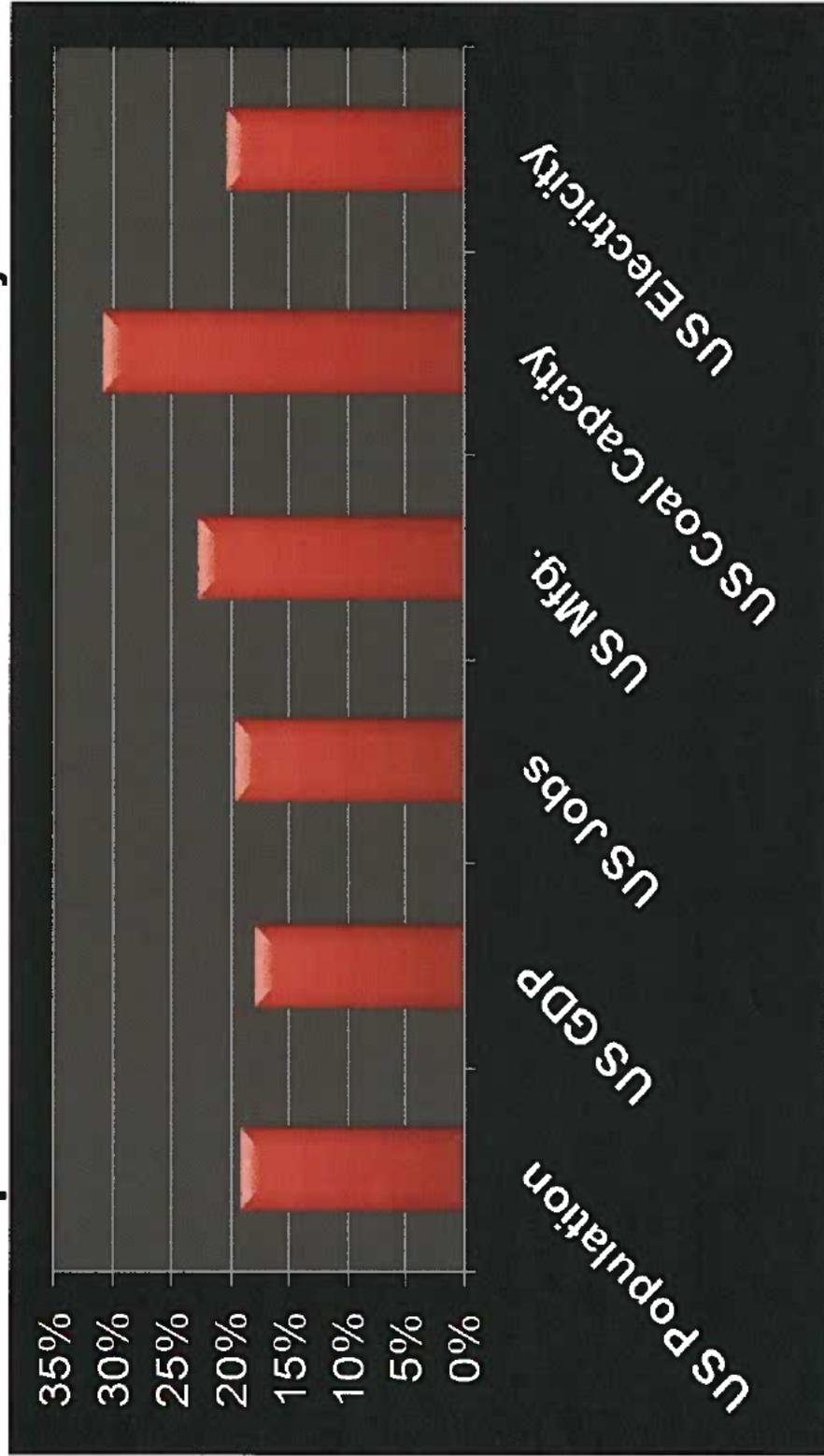
Source: Xcel Energy Filing 6-30-10 and Management Information Services, Inc., 2010.

## **IMPACT OF EPA REGS**

- **EPA regs could force shutdown of 30-90 GW of U.S. coal by 2015**
- Here we assume ~ 50 GW will be shut down
- However, impact will not be uniform nationwide
- Midwestern states will be especially harmed
- **Illinois, Indiana, Michigan, Missouri, Ohio, & Pennsylvania could see nearly 30 GW shut down**
- This totals:
  - ~ 29 % of their coal-fired capacity
  - ~ 26% of their total electricity generation

# FOCUS ON 6 STATES: ILLINOIS, INDIANA, MICHIGAN, MISSOURI, OHIO, PENNSYLVANIA

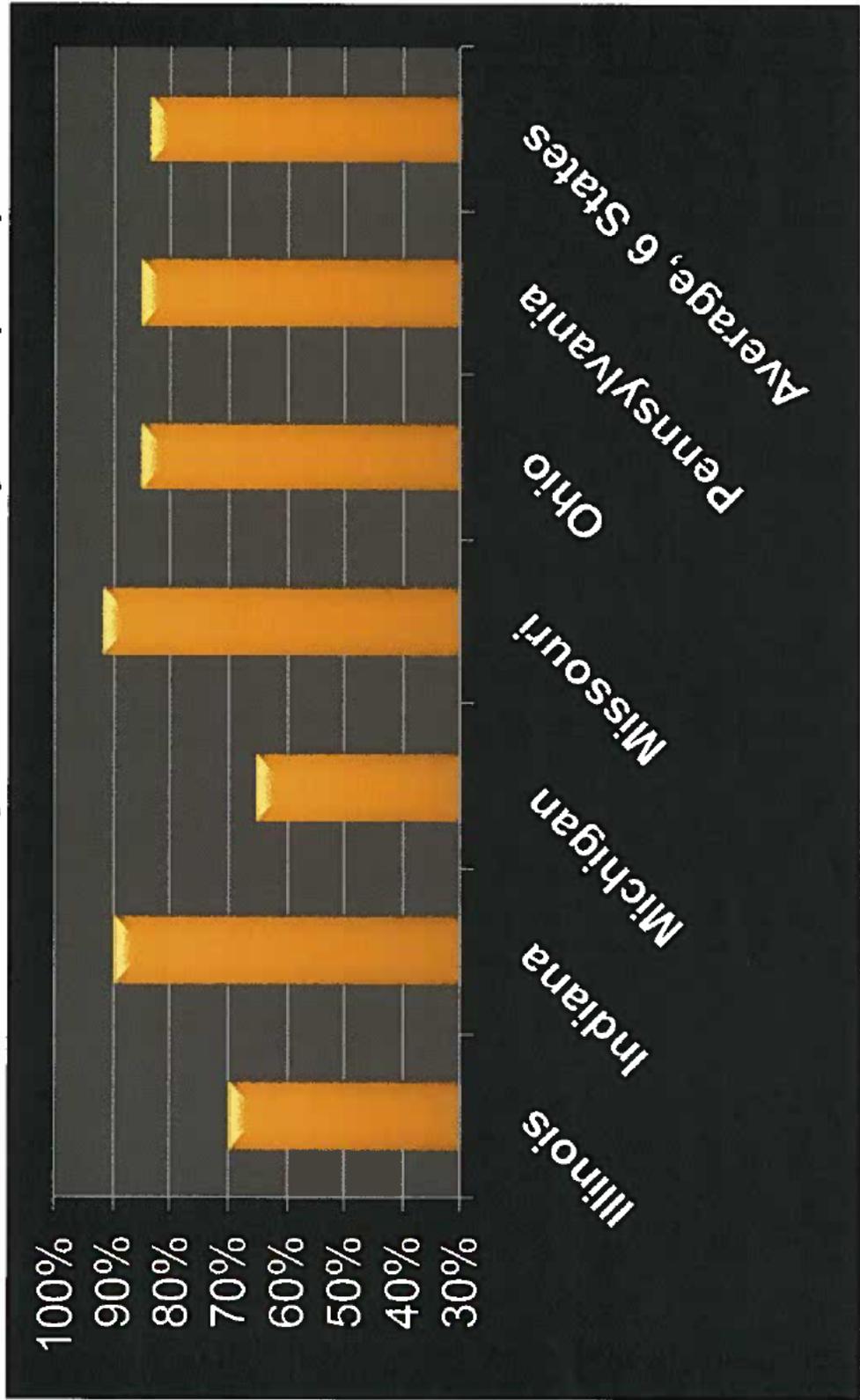
Importance of the 6 States to US Economy



The 6 States Contain ~ 1/4 of all US Manufacturing

# COAL CRITICAL IN ALL 6 STATES

## Percent Electricity Generation by Coal (2009)

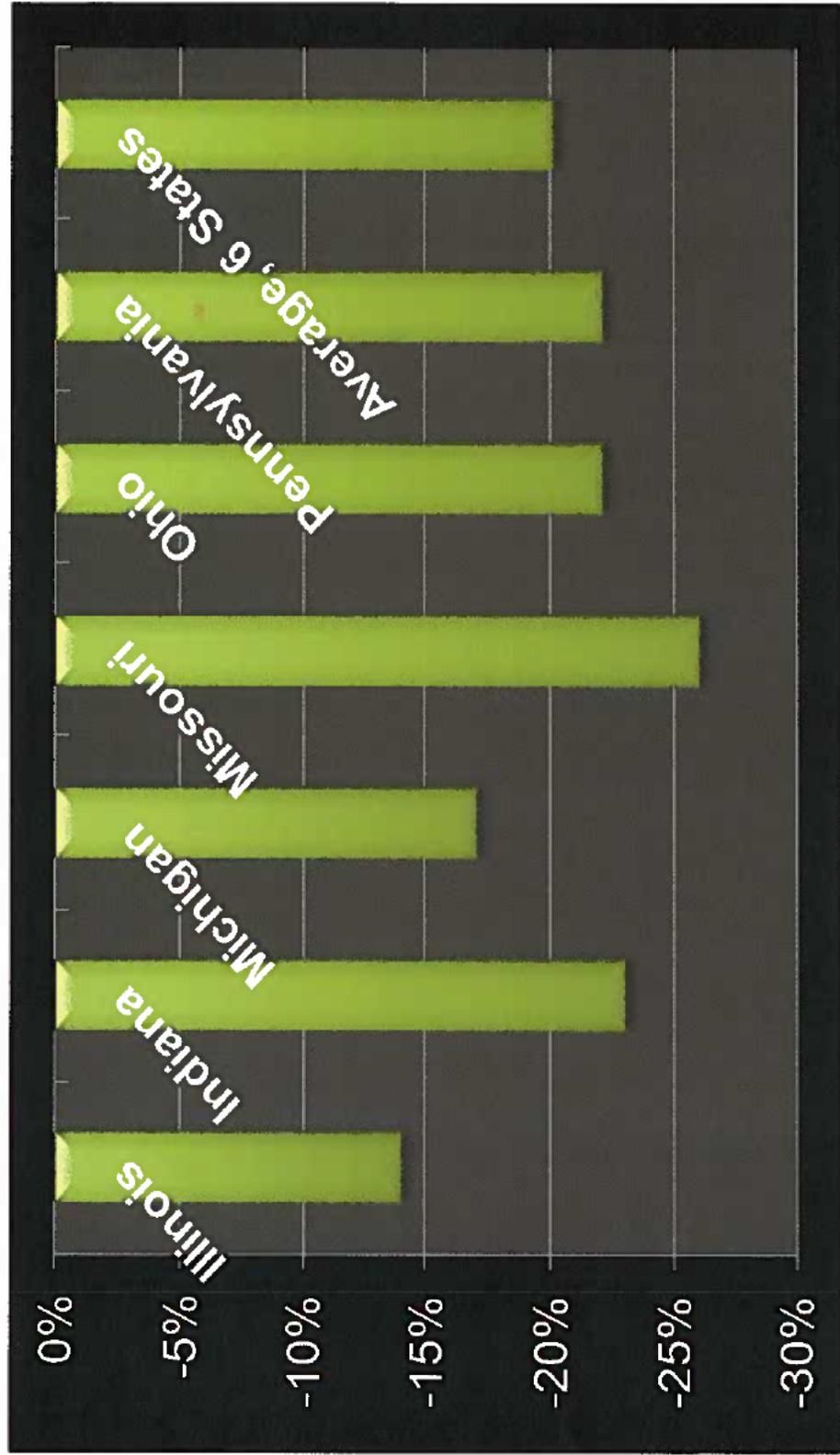


## 2 OPTIONS ANALYZED

- **Scenario I, by 2015:**
  - 30 GW of coal terminated in 6 states
  - No replacement available
  - Blackouts and rolling brownouts
  - Prices of available electricity skyrocket
- **A “worst case” scenario**
- **Scenario II, by 2015:**
  - 30 GW of coal terminated in 6 states
  - Replaced by natural gas
  - Electricity & NG prices increase dramatically
- **A “second worse case” scenario**

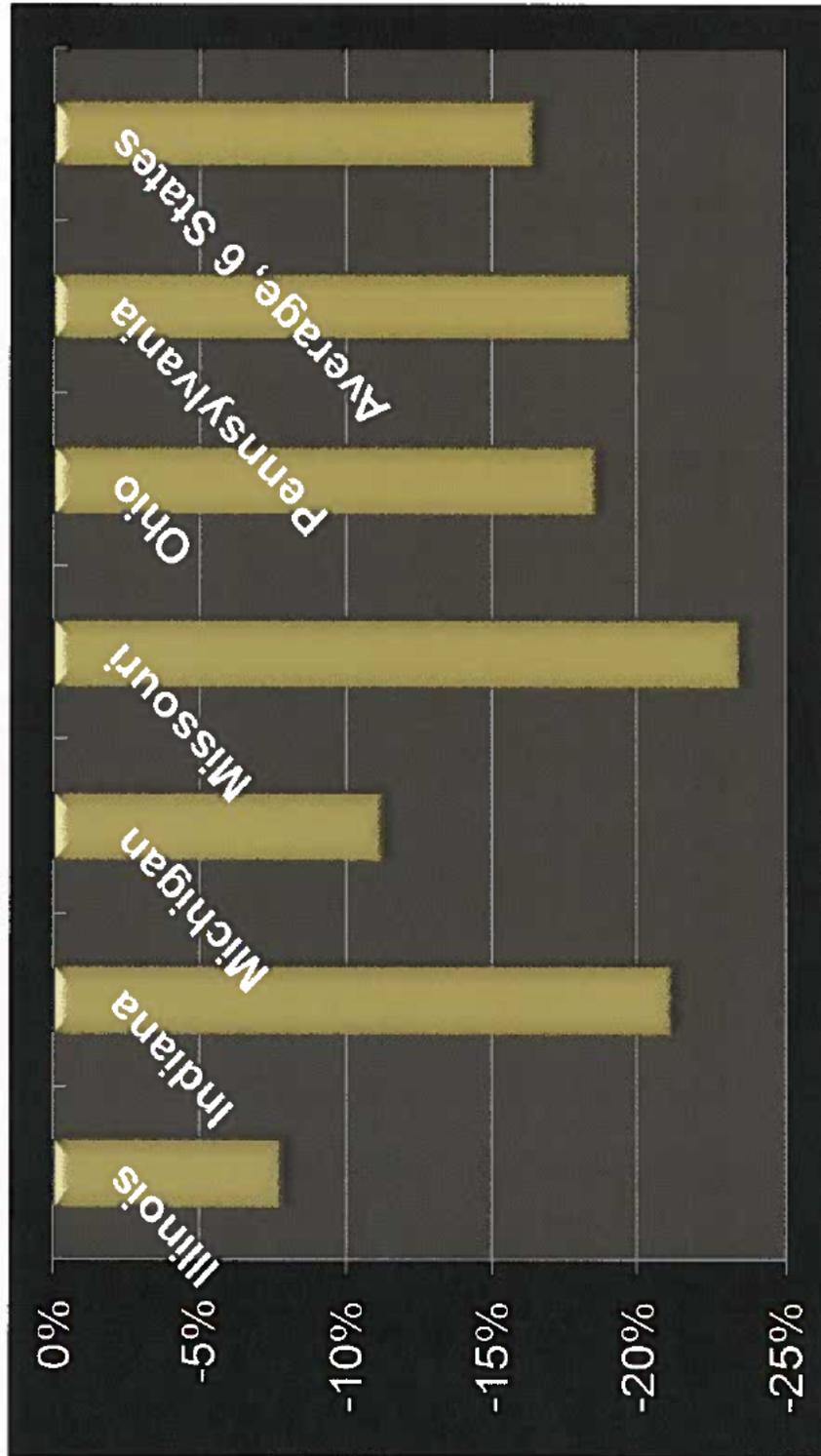
# SCENARIO I: 30 GW OF COAL TERMINATED IN 6 STATES

## Loss of Coal Electric Generation in 2015



# SCENARIO I: 30 GW OF COAL TERMINATED IN 6 STATES

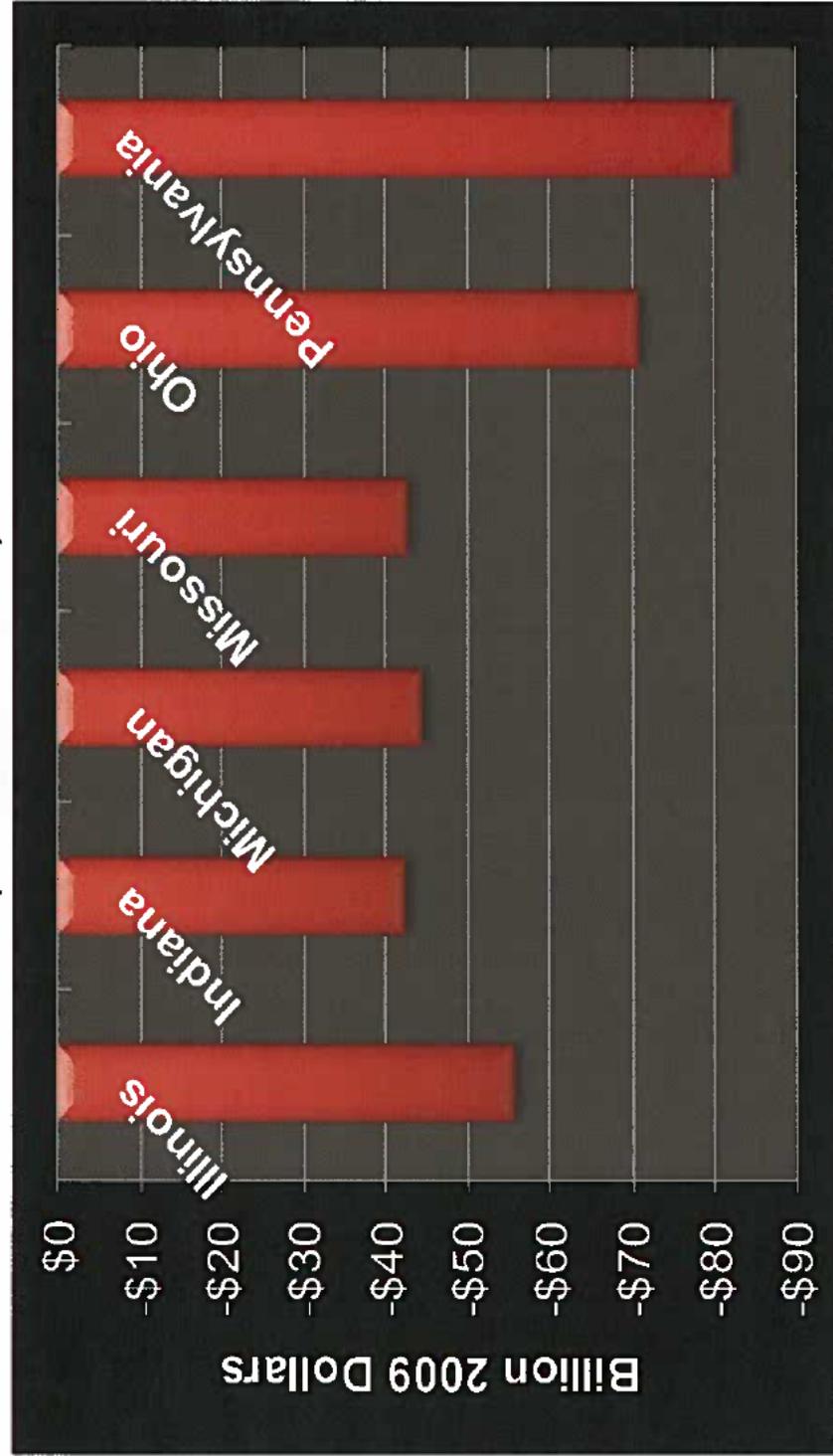
## Loss of Total Electric Generation in 2015



**Blackouts & Rolling Brownouts Inevitable**

# SCENARIO I: 30 GW OF COAL TERMINATED IN 6 STATES

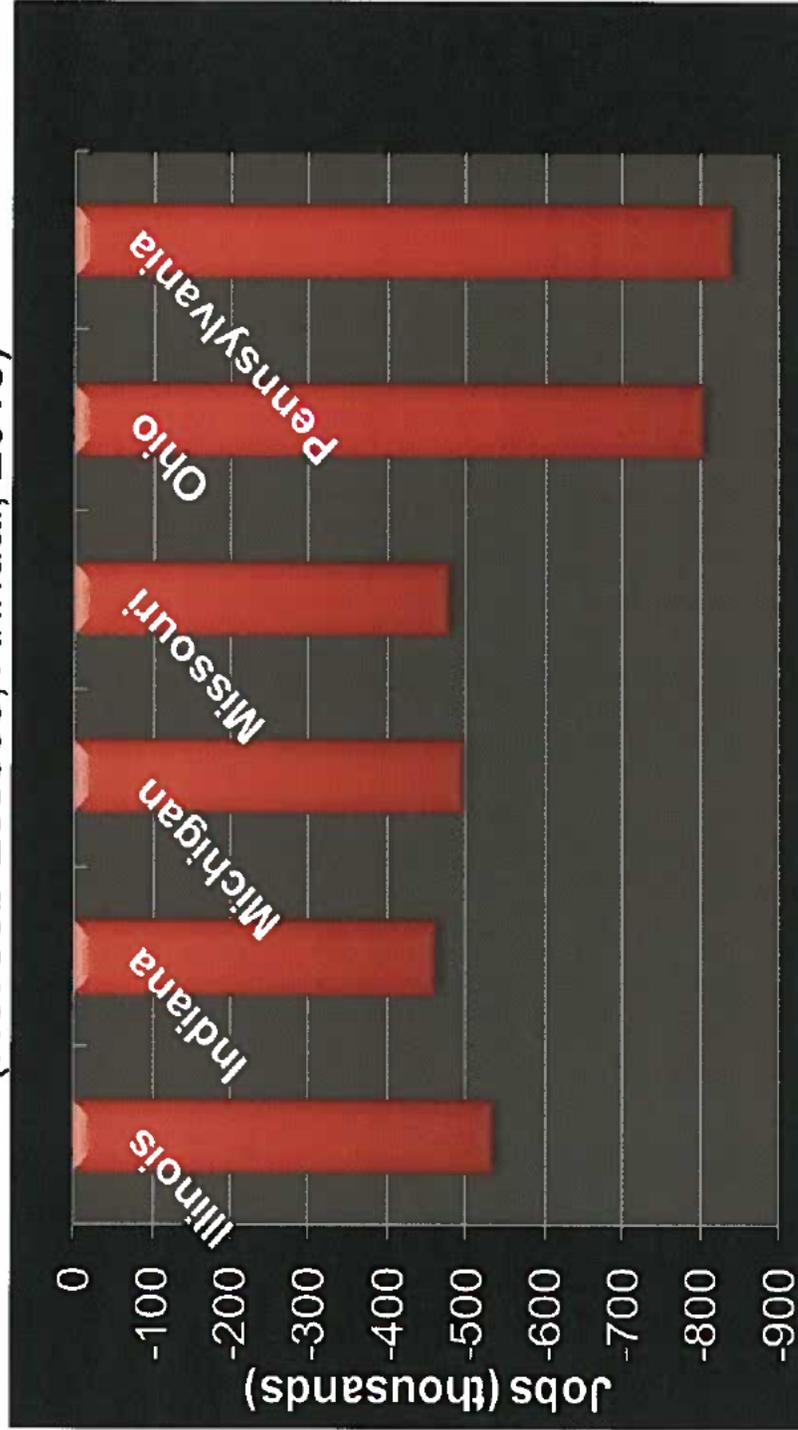
## Massive Losses in States' Gross Products (Annual, 2015)



Severe Recessions in Each State

# SCENARIO I: 30 GW OF COAL TERMINATED IN 6 STATES

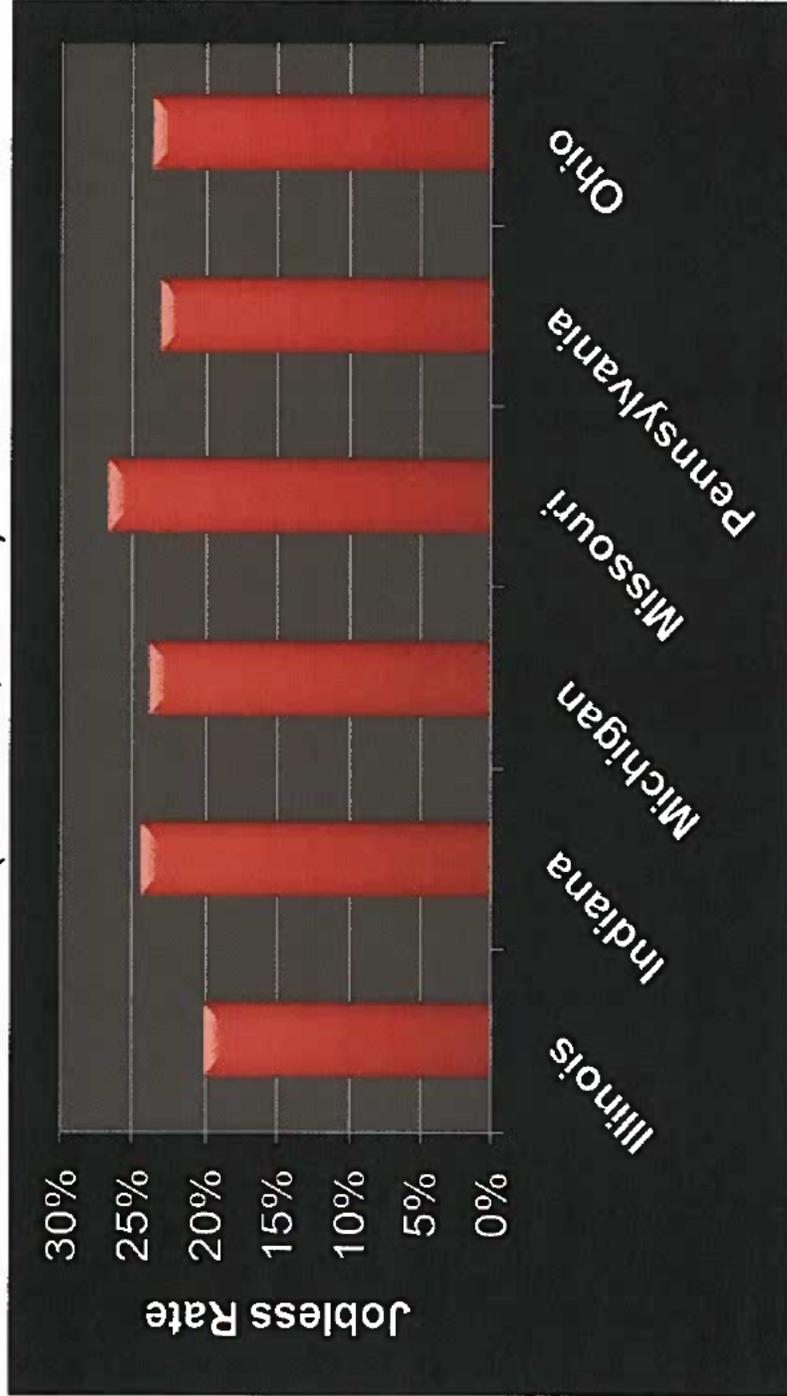
## States Hemorrhage Jobs (Net Job Losses, Annual, 2015)



**> 3.5 Million Jobs Lost in Only 6 States. Note: In all of 2010, Entire US Economy Created ~ 1.1 Million Jobs**

# SCENARIO I: 30 GW OF COAL TERMINATED IN 6 STATES

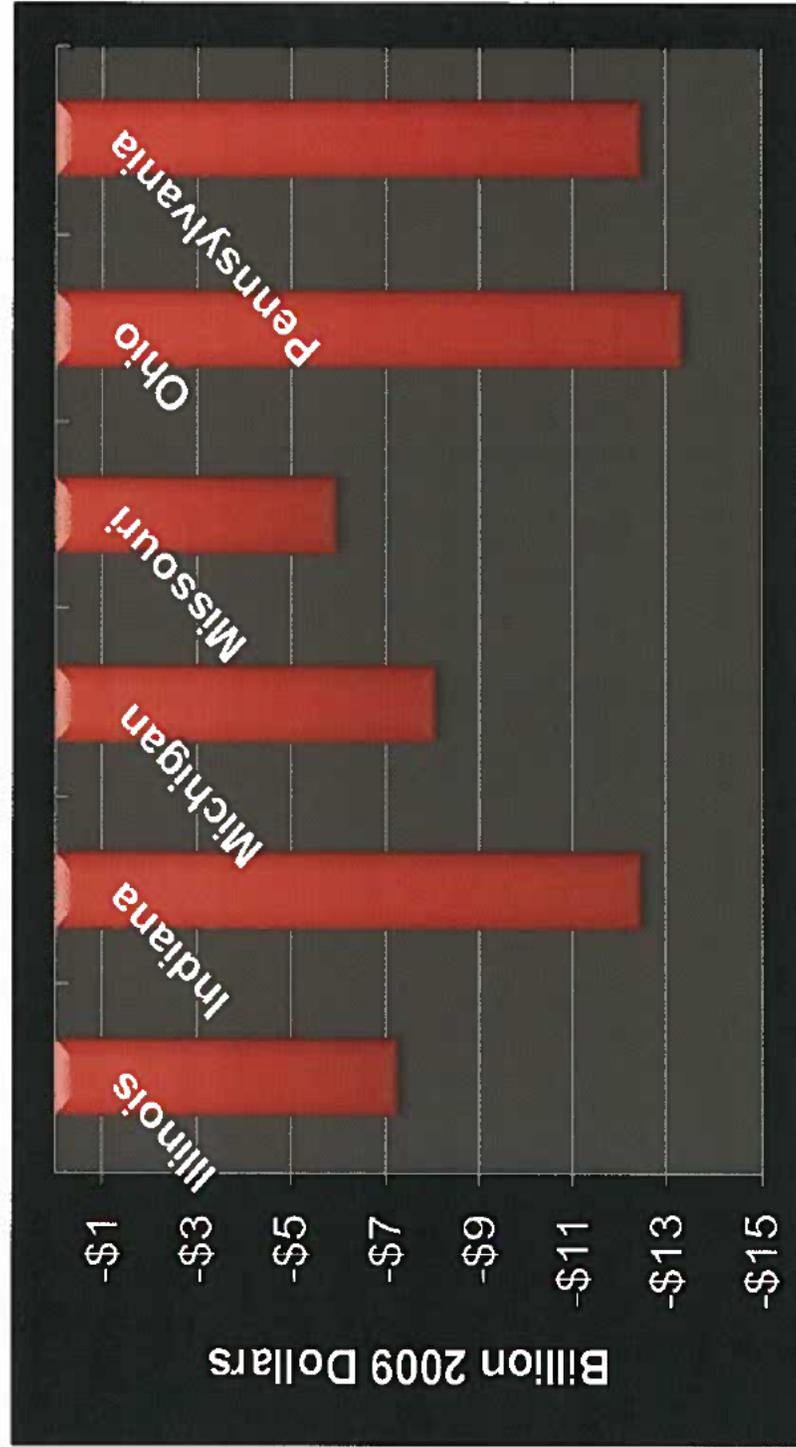
## State Unemployment Rates Reach Depression-Era Levels (Annual, 2015)



**Unemployment in Illinois, Indiana, Michigan, Missouri, Ohio, & Pennsylvania Reaches Levels Not Seen Since the 1930s**

# SCENARIO I: 30 GW OF COAL TERMINATED IN 6 STATES

## Manufacturing Output Collapses (Annual, 2015)



**This Makes it Impossible to Achieve President Obama's  
Goal of Doubling U.S. Exports by 2015**

# SCENARIO I: 30 GW OF COAL TERMINATED IN 6 STATES

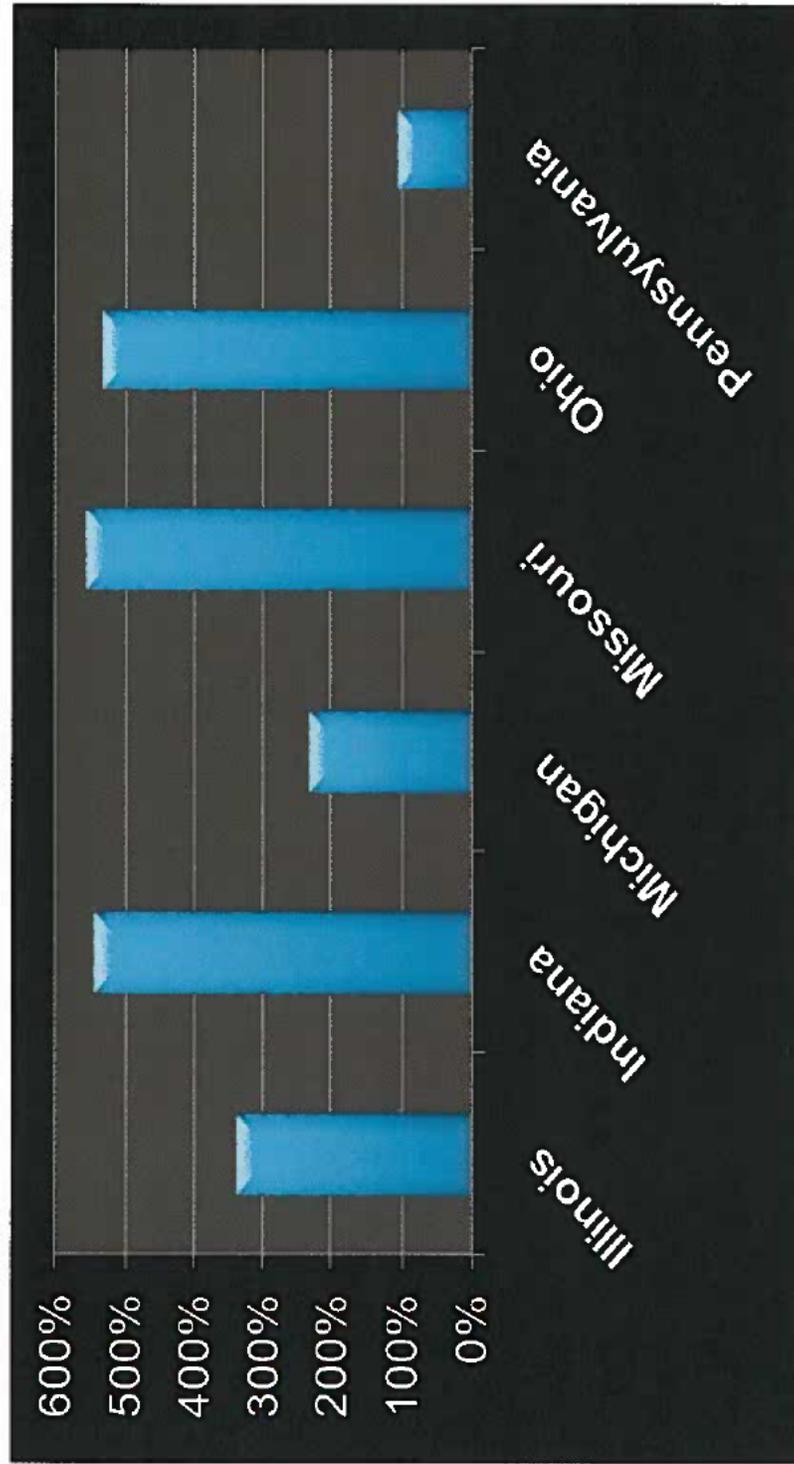
State & Local Governments Suffer Severe Revenue Losses  
(Annual, 2015)



Numerous City & Municipal Bankruptcies Will Occur

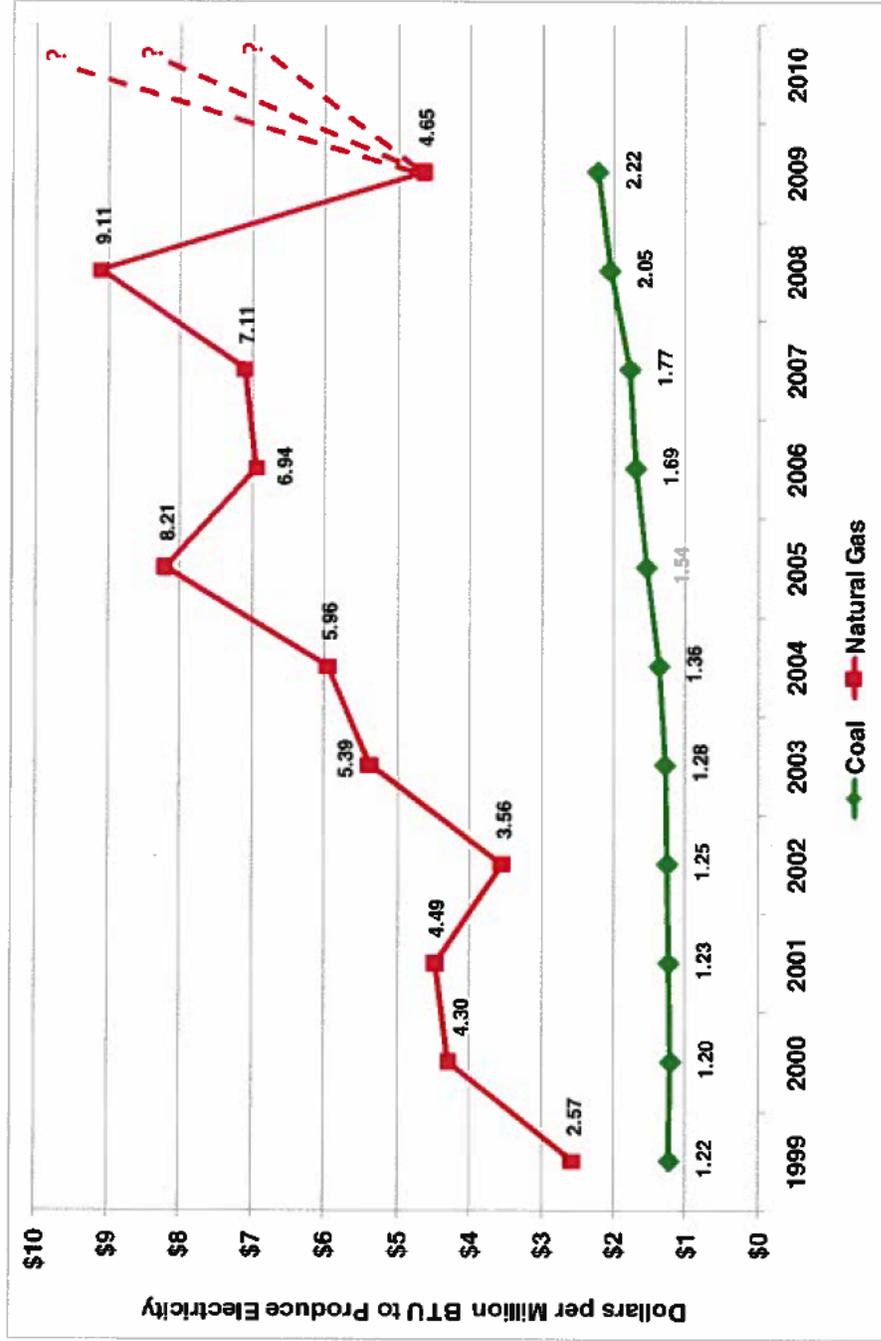
# SCENARIO II: 30 GW OF COAL REPLACED BY NATURAL GAS IN 6 STATES

## Increased Use of NG for Electricity Generation, 2015



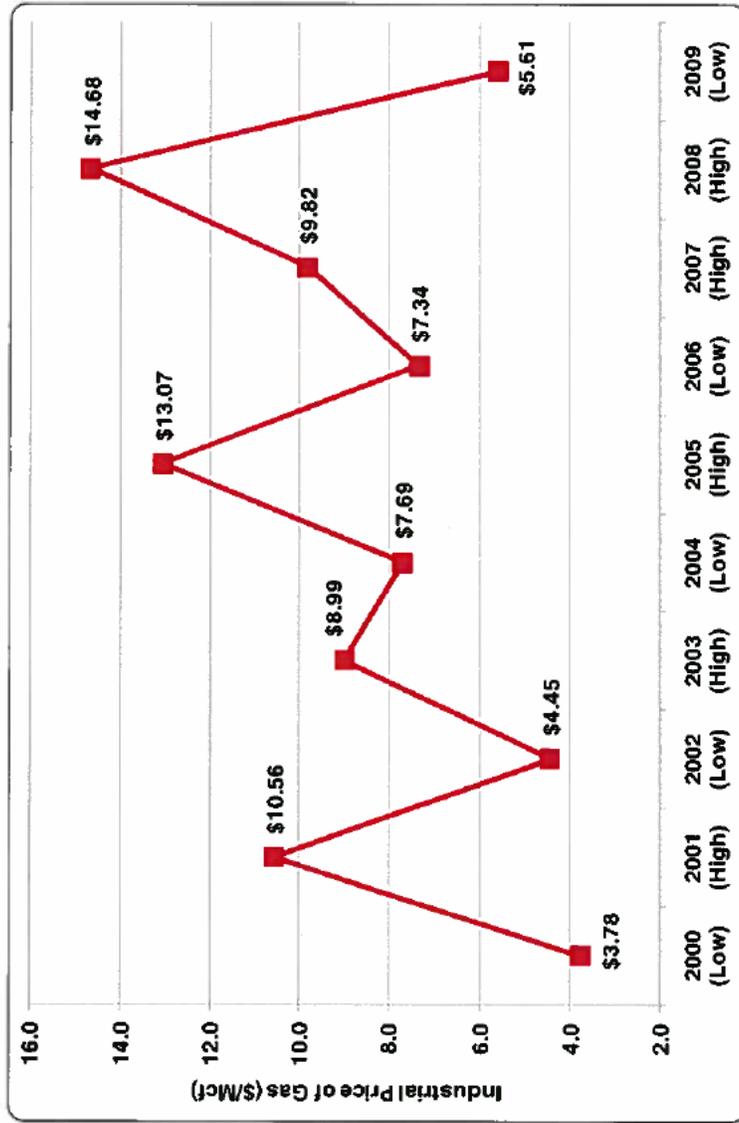
**Coal Shutdowns Would Require Massive, Unprecedented Increases in Natural Gas for Electricity Generation**

# GAS PRICES FOR ELECTRICITY HIGHER & MORE VOLATILE THAN COAL PRICES



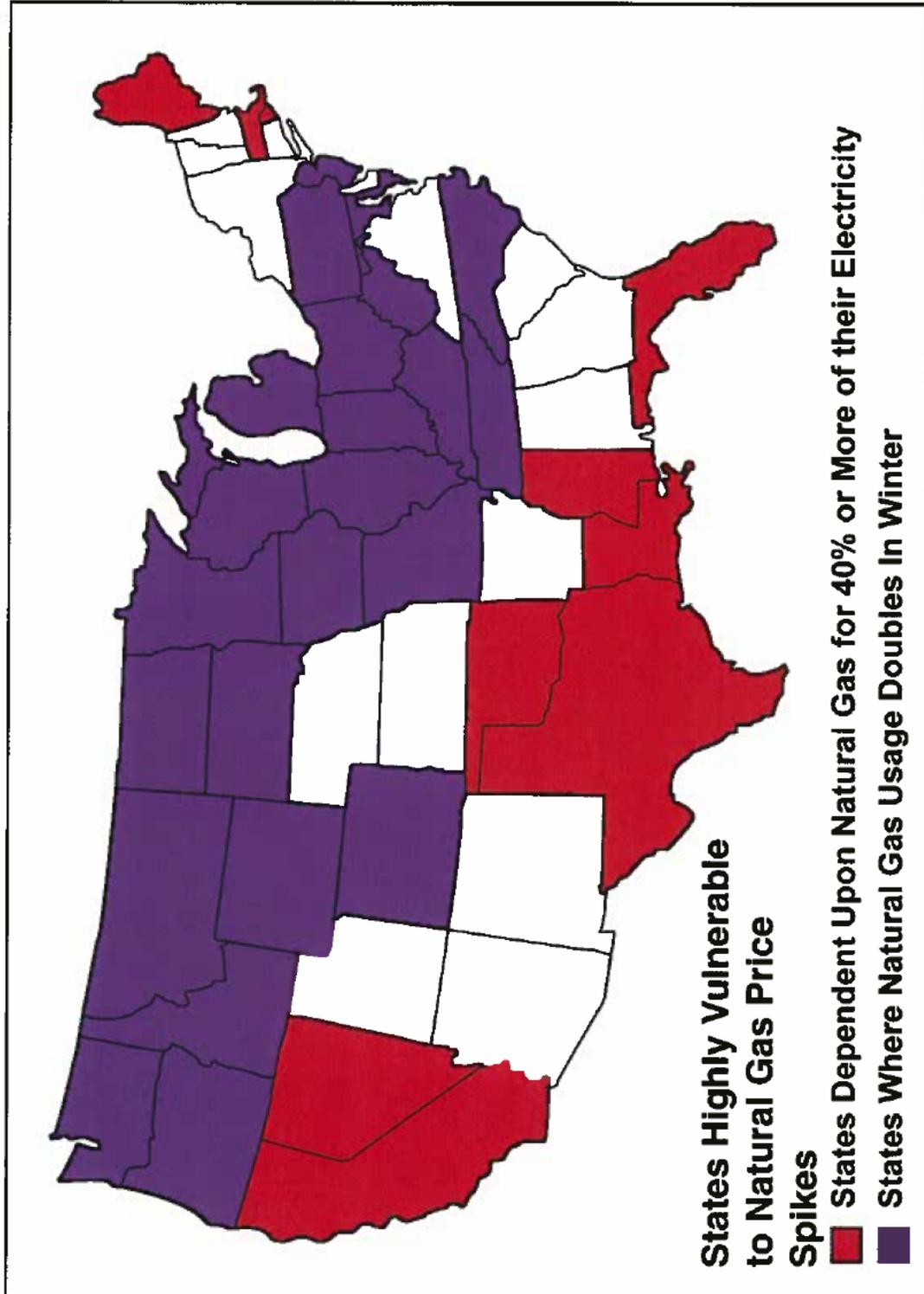
# GAS PRICE VOLATILITY DESTROYING U.S. INDUSTRY

## Roller Coaster Ride of Industrial Gas Prices in Illinois Over Past Decade



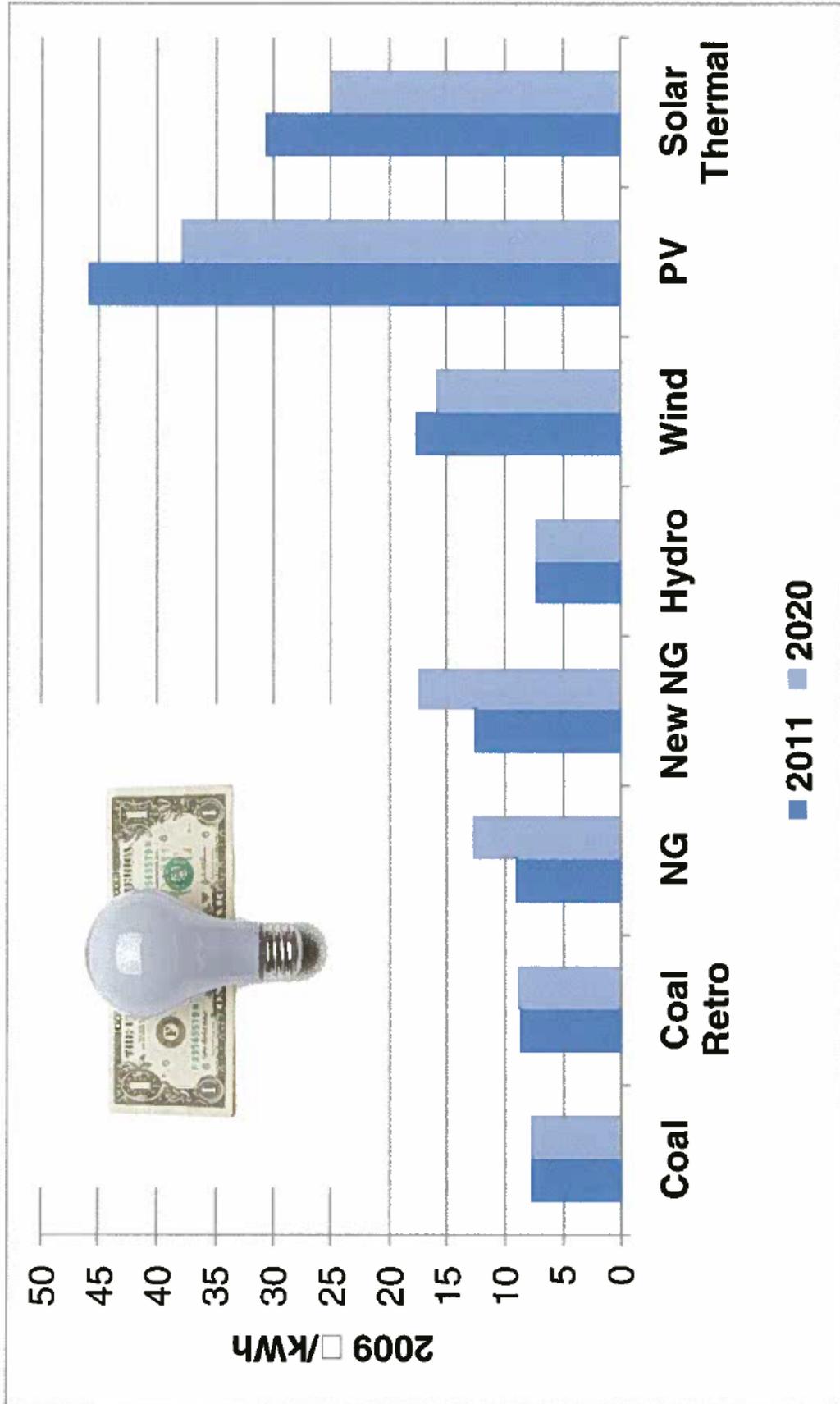
**"Since 1997, there have been five natural gas price spikes, These price spikes have significantly contributed to the US manufacturing sector losing over 3.7 million jobs."**  
**Edward Stones, Dow Chemical Co., US Senate testimony, 2009. Jobs lost include engineers, machinists, mechanics, welders, etc.**

# STATES IMPACTED BY NATURAL GAS PRICES



**Illinois, Indiana, Michigan, Missouri, Ohio, & Pennsylvania all Highly Vulnerable to NG Price Volatility**

# LEVELIZED COSTS OF ELECTRICITY (LCOE)



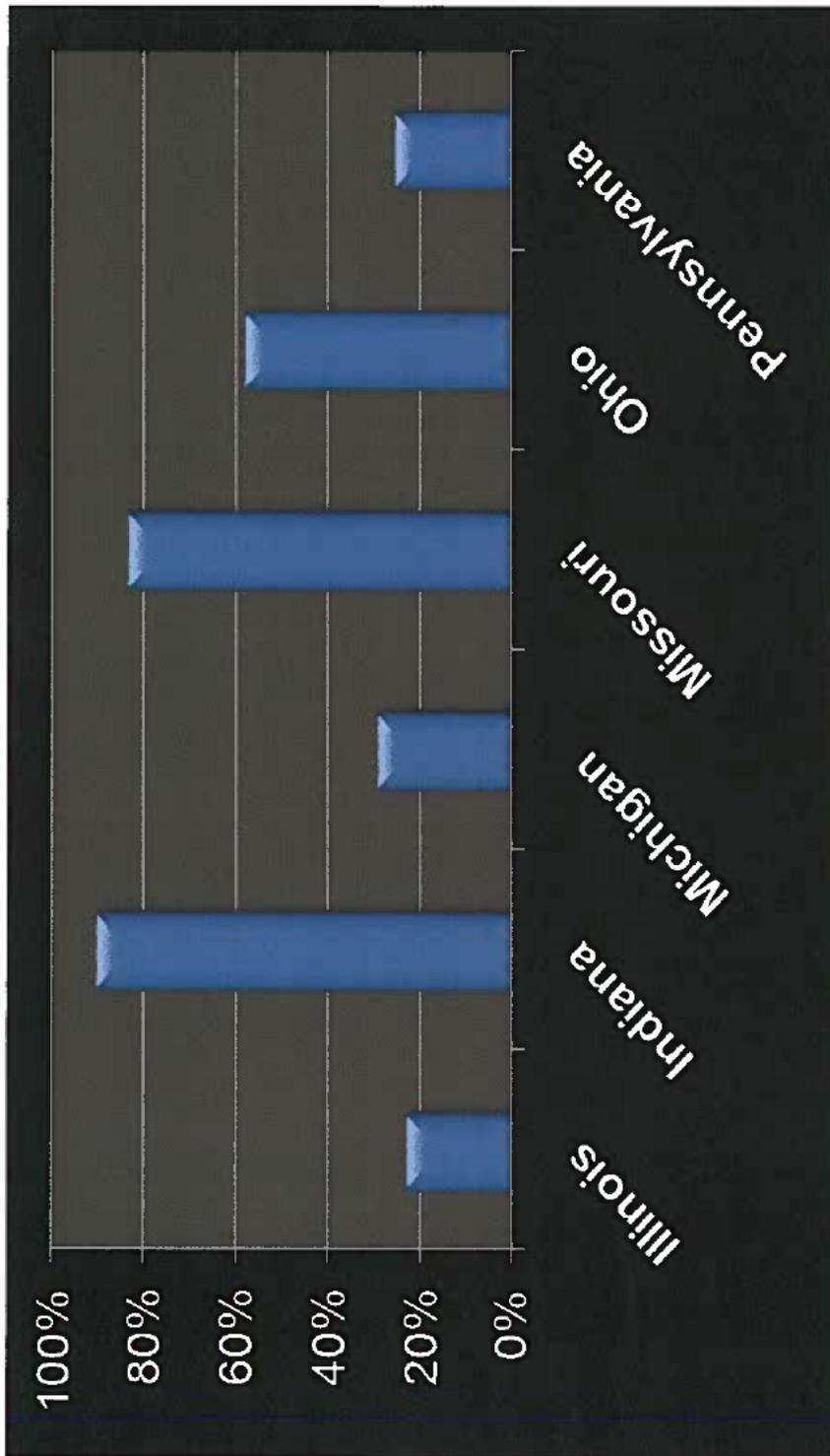
Coal much less expensive than alternatives (ex. large hydro) <sup>32</sup>

## **RESULTS INEVITABLE AND OMINOUS**

- Coal shutdowns imply large reduction in use of least expensive fuel – coal
- Coal shutdowns imply huge increase in use of more expensive natural gas
- NG goes from being twice as expensive as coal in 2010 to 3.5 times as expensive in 2015
- **States thus use more of the more expensive NG**
- NG fuel cost ~ 70% of NG LCOE
- **Very large increases in electricity costs (& rates) are inevitable in all 6 states**

# SCENARIO II: 30 GW OF COAL REPLACED BY NATURAL GAS IN 6 STATES

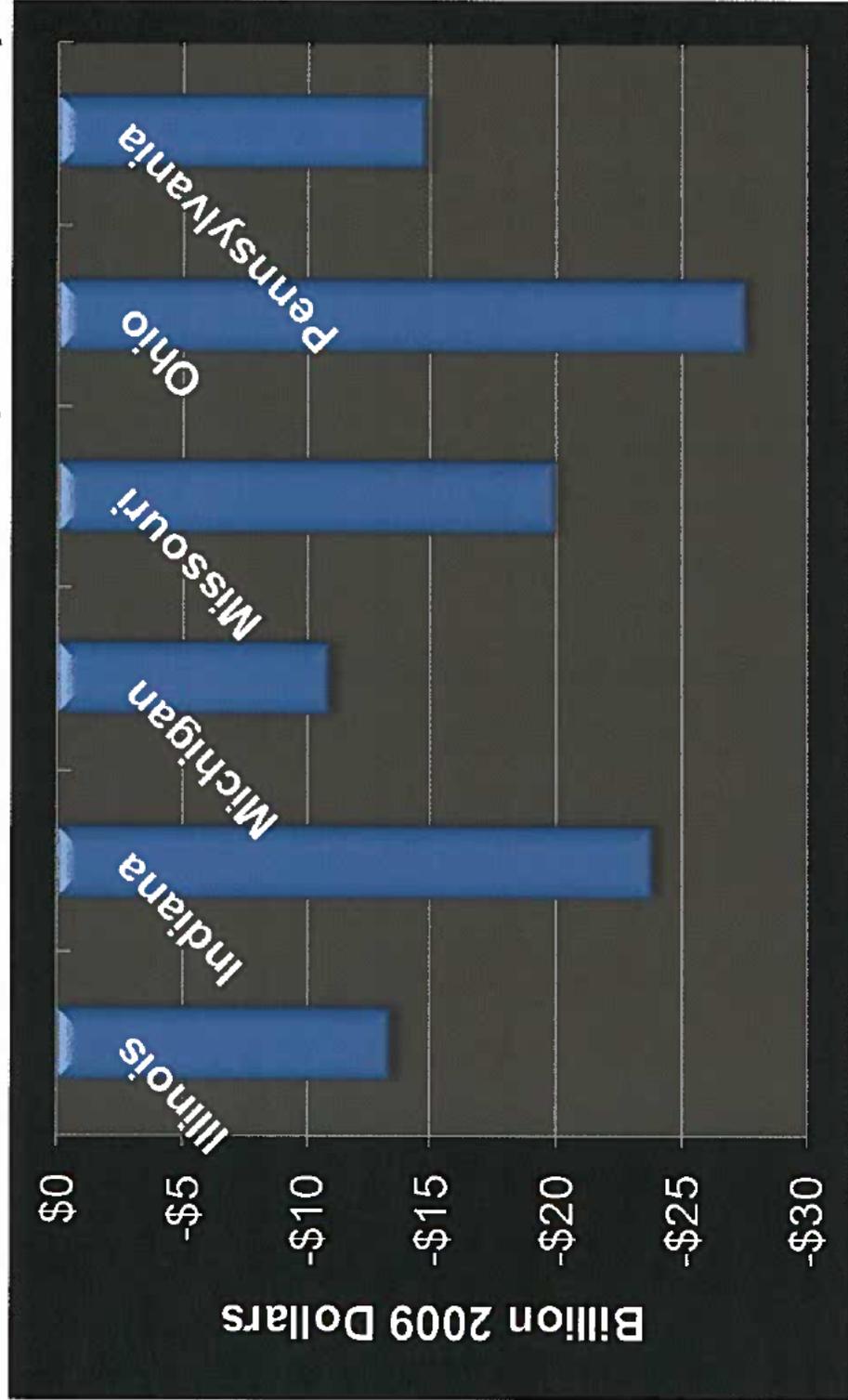
States Experience Enormous Electric Rate Increases



Most PUC Hearings Involve Rate Changes of 1% or 2% -- or Less

# SCENARIO II: 30 GW OF COAL REPLACED BY NATURAL GAS IN 6 STATES

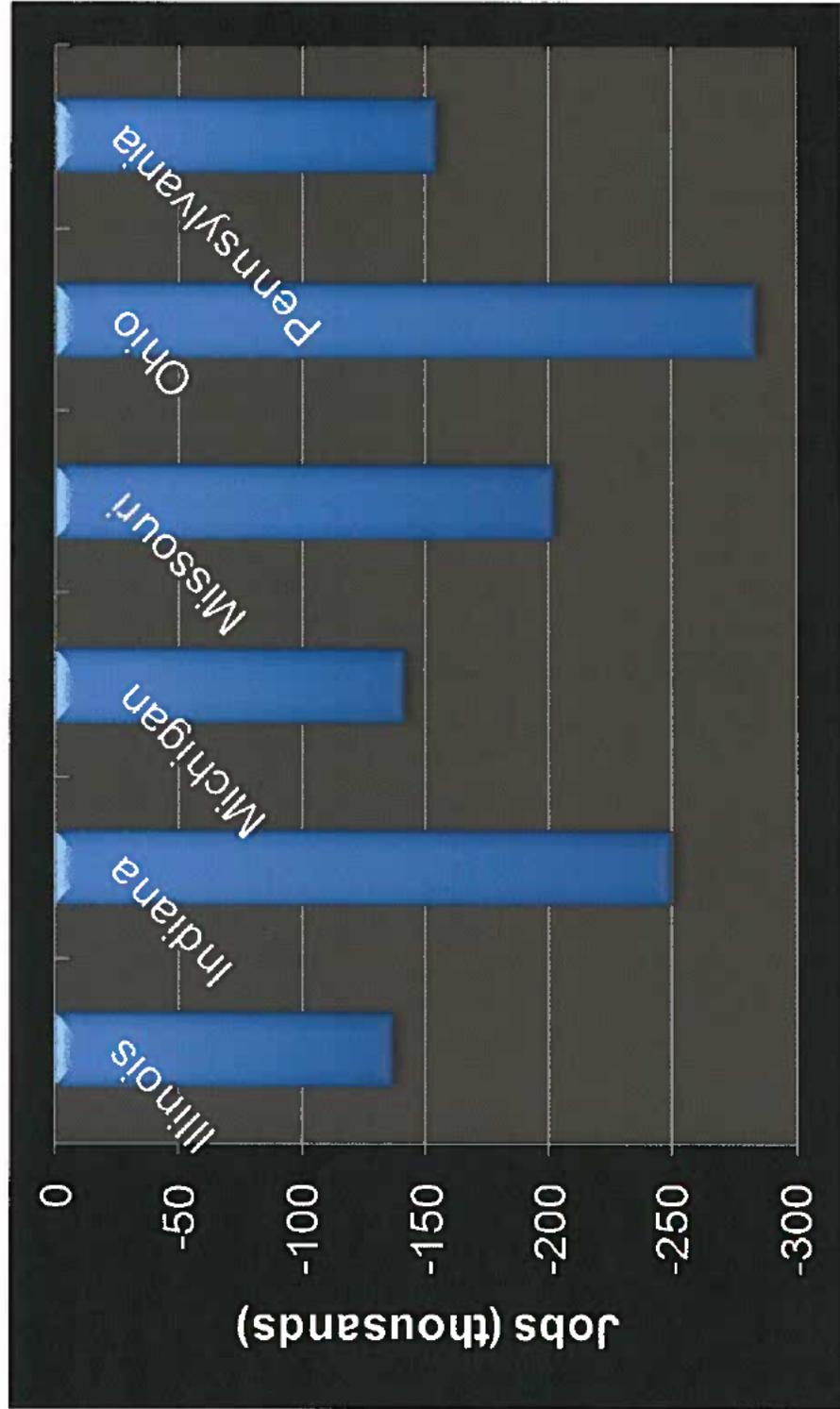
## Losses in States' Gross Products (Annual, 2015)



State Economies Suffer Greatly

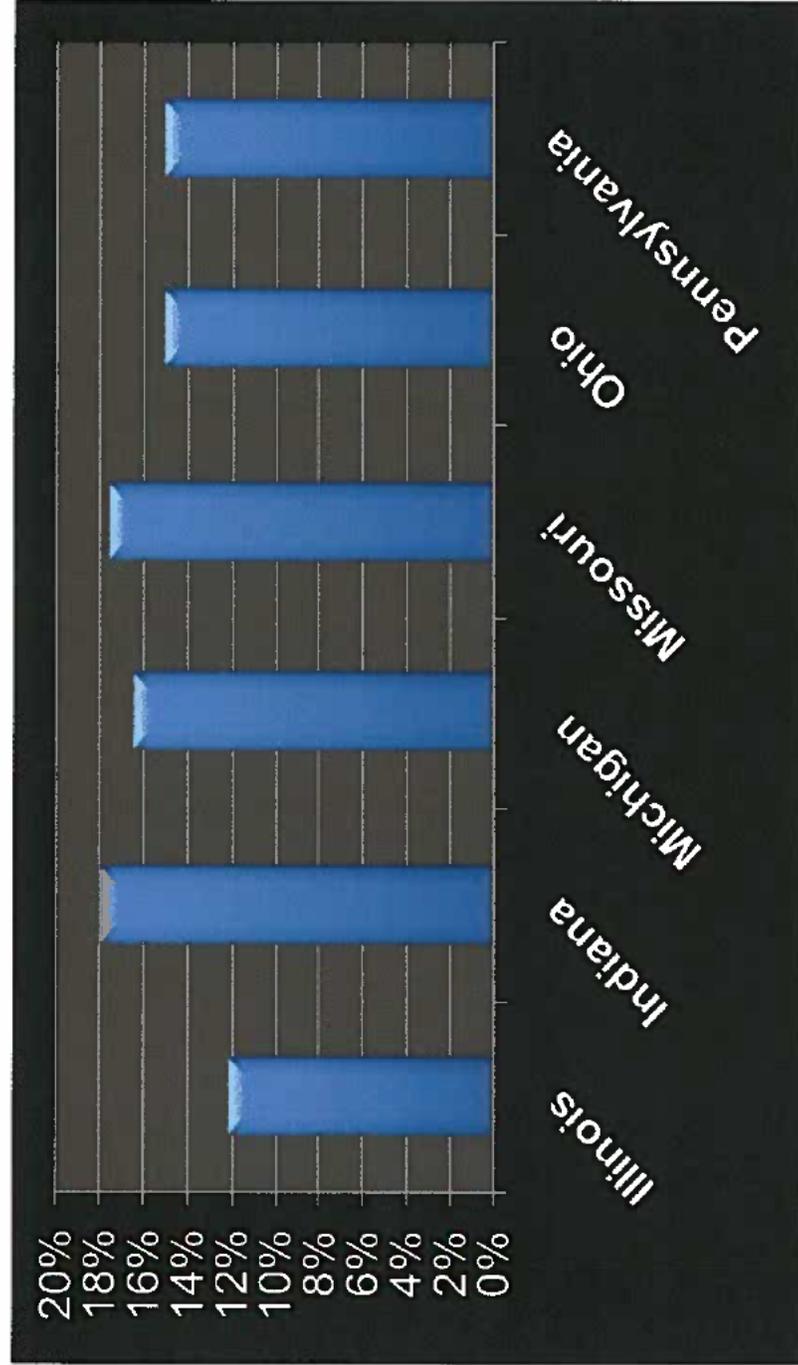
# SCENARIO II: 30 GW OF COAL REPLACED BY NATURAL GAS IN 6 STATES

## Severe Job Losses Result (Net Job Losses, Annual, 2015)



# SCENARIO II: 30 GW OF COAL REPLACED BY NATURAL GAS IN 6 STATES

## State Unemployment Rates Increase to Unacceptable Levels

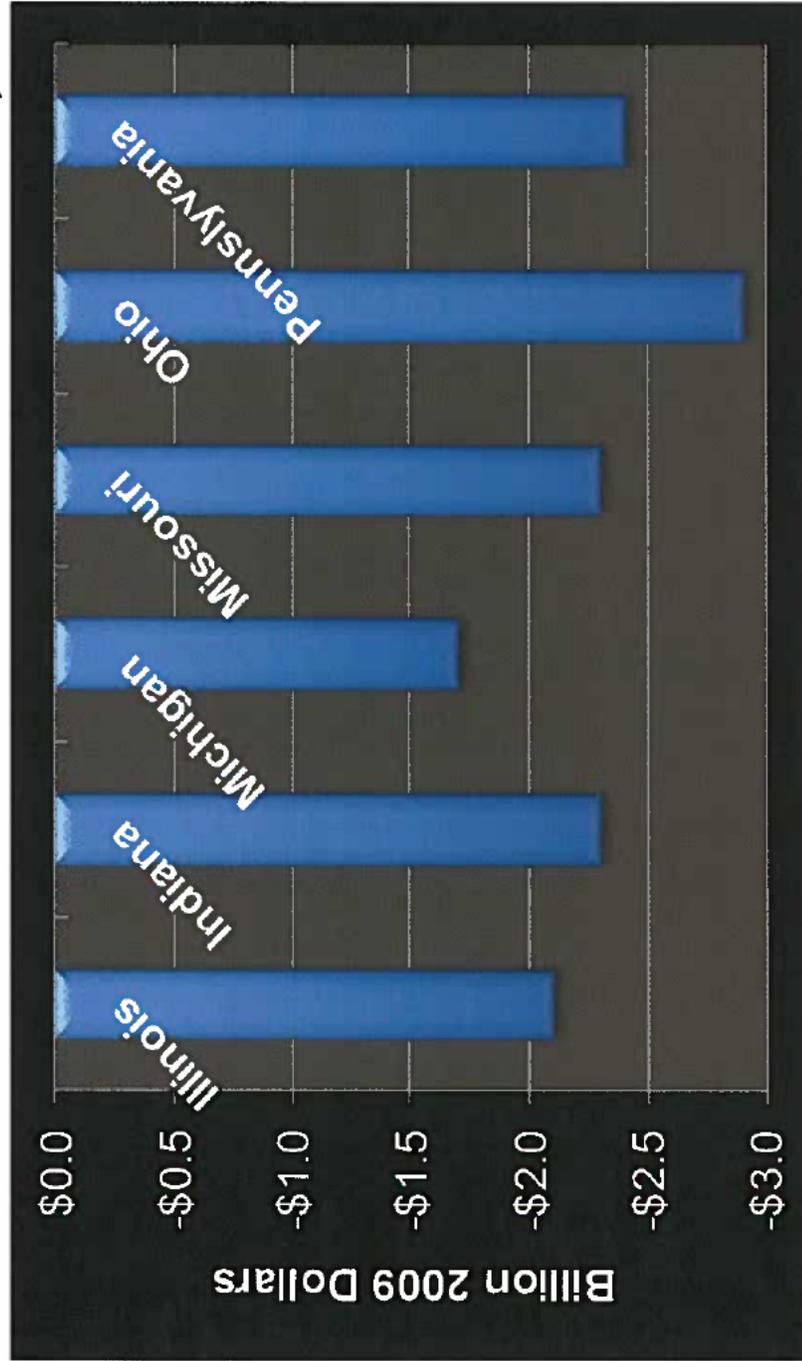


Unemployment Rates Significantly Exceed Those of the "Great Recession" of 2008-2010

# SCENARIO II: 30 GW OF COAL REPLACED BY NATURAL GAS IN 6 STATES

State & Local Government Revenues Decline Significantly

State & Local Government Annual Revenue Losses, 2015



State & Local Government Fiscal Problems Greatly Exacerbated

## CONCLUSIONS

- **EPA issuing unprecedented set of simultaneous coal regs**
- By suppressing inexpensive coal-generated electricity, regs will have severe economic consequences
- **Impacts on Midwest industrial states especially devastating:**
  - Electricity costs & rates will skyrocket
  - State economies will be pushed into severe recession
  - Millions of jobs will be lost (engineers, machinists, mechanics, welders, etc.)
  - Unemployment could reach 1930s depression-era levels
  - Manufacturing industries will be destroyed & President Obama's goal of doubling US exports will be unachievable
  - State & local government revenues will be greatly reduced, & numerous city & municipal bankruptcies will occur
- **Therefore, the impending EPA regs must not be implemented**

01268-EPA-989

David  
McIntosh/DC/USEPA/US  
02/13/2011 12:34 PM

To "Richard Windsor", Diane Thompson, Bob Perciasepe, Bob  
Sussman, Michael Goo, Bicky Corman, Seth Oster, Arvin  
Ganesan

cc

bcc

Subject Fw: Calpine Letter of Support for EPA GHG Regulations

(b) (5) Deliberative

This letter is public already, because it was entered into the record of Wednesday's hearing. I've pasted the key summary text immediately below.

On behalf of Calpine Corporation, I would like to express our support for retaining the authority

of the U.S. Environmental Protection Agency (EPA) to regulate emissions of greenhouse gases

(GHGs) under the Clean Air Act (CAA). Specifically, Calpine believes that EPA's approach to regulating GHGs has been reasonable and does not impose undue hardship on the electric generating sector for the following reasons:

- Regulation under the CAA does not establish a cap on emissions nor does it set up a trading program that would set a price on carbon. Therefore, regulation under the CAA does not create winners or losers depending on generating fuel and will have no impact on the price of electricity to the public.
- EPA has set the applicability thresholds for New Source Review (NSR) under the CAA's Prevention of Significant Deterioration (PSD) rules high enough that significant efficiency improvement projects in our industry would not be subject to major permitting requirements.
- EPA issued guidance to states and applicants on the GHG permitting process, including determining what constitutes best available control technology (BACT) for GHGs. This

guidance will not require fossil generating units to consider alternative fuels nor will it mandate control technologies such as carbon capture and storage. Instead the guidance focuses on efficiency.

- EPA's BACT guidance clearly defines the criteria that permitting authorities should consider in evaluating efficiency in a GHG BACT analysis for the electric generating sector, including maintenance cycles, market dispatch, and generation technology. This will ensure that permit applications will be considered on a case by case basis focusing only on the efficiency of the unit proposed for construction or modification.
- EPA has stated that they will not attempt to establish a federal cap and trade program to comply with the court-ordered requirement to establish New Source Performance Standards (NSPS) for GHG emissions from electric generating units (EGUs). In Calpine's experience the NSPS program establishes a floor for emissions performance that is quickly exceeded by the NSR program.

-----Forwarded by David McIntosh/DC/USEPA/US on 02/13/2011 12:30PM  
-----

To: David McIntosh/DC/USEPA/US@EPA  
From: "Yvonne McIntyre" <yvonne.mcintyre@calpine.com>  
Date: 02/08/2011 06:50PM  
Subject: Calpine Letter of Support for EPA GHG Regulations

*(See attached file: 2\_8\_11 Letter to Rep Waxman.pdf)*

Hello David,

Calpine was asked to testify for the minority at tomorrow's House Energy and Power Subcommittee hearing – we had to decline due to political concerns. We were then ask to submit a letter in support of the EPA regulations stating the comments Don Neal made at Friday's listening session. Attached is a copy of the letter we sent. I would appreciate it if you shared this with the Administrator.

I wish her good luck at the hearing tomorrow!

Yvonne A. McIntyre  
Vice President, Federal Legislative Affairs  
Calpine Corp.  
1401 H St., NW Suite 510  
Washington, DC 20005  
(202) 777-7612  
(202) 589-0922 (fax)  
(202) 744-5638 (cell)



- 2\_8\_11 Letter to Rep Waxman.pdf



DONALD NEAL  
VICE PRESIDENT, EHS  
717 TEXAS AVENUE  
SUITE 1000  
HOUSTON, TEXAS 77002  
713-830-2004  
713-830-8871 (F)

February 8, 2011

The Honorable Henry Waxman  
Ranking Member  
Committee on Energy and Commerce  
United State House of Representatives  
Washington, DC 20515

The Honorable Bobby Rush  
Ranking Member  
Subcommittee on Energy and Power  
United State House of Representatives  
Washington, DC 20515

Dear Congressmen Waxman and Rush:

On behalf of Calpine Corporation, I would like to express our support for retaining the authority of the U.S. Environmental Protection Agency (EPA) to regulate emissions of greenhouse gases (GHGs) under the Clean Air Act (CAA). Specifically, Calpine believes that EPA's approach to regulating GHGs has been reasonable and does not impose undue hardship on the electric generating sector for the following reasons:

- Regulation under the CAA does not establish a cap on emissions nor does it set up a trading program that would set a price on carbon. Therefore, regulation under the CAA does not create winners or losers depending on generating fuel and will have no impact on the price of electricity to the public.
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- EPA's BACT guidance clearly defines the criteria that permitting authorities should consider in evaluating efficiency in a GHG BACT analysis for the electric generating sector, including maintenance cycles, market dispatch, and generation technology. This will ensure that permit applications will be considered on a case by case basis focusing only on the efficiency of the unit proposed for construction or modification.
- EPA has stated that they will not attempt to establish a federal cap and trade program to comply with the court-ordered requirement to establish New Source Performance Standards (NSPS) for GHG emissions from electric generating units (EGUs). In Calpine's experience the NSPS program establishes a floor for emissions performance that is quickly exceeded by the NSR program.

More detail and background information on these points is provided in the attachment.

## **About Calpine**

Calpine is a national leader in low-carbon and renewable power generation, providing nearly 27,500 megawatts (MW) of electricity generated from 91 power plants in 20 states and Canada. We operate the largest and most modern fleet of low-carbon, efficient, combined-cycle natural gas-fueled power plants. We are also the nation's largest operator of highly-efficient combined heat and power (CHP) plants which produce electricity as well as steam for industrial use. In California, we generate 725 MW of which electricity from 15 geothermal power plants located at the Geysers the country's largest geothermal resource. These plants generate baseload renewable power, making Calpine California's leading producer of renewable electricity.

Calpine has actively supported enactment of climate change legislation for many years and believes that a comprehensive legislative solution is needed to spur the transition from more carbon intensive sources of power, to low-carbon and renewable generating sources. Calpine supported the Supreme Court's decision on April 2, 2007 that the EPA has the authority to regulate GHG emissions under the CAA. Along with other representatives from the power sector, Calpine participated in the GHG BACT Working Group of the Clean Air Act Advisory Committee to help EPA establish clear and reasonable guidelines for permitting authorities and industry.

Calpine has been in the forefront of GHG regulation under the CAA. Recently, Calpine agreed to inclusion of BACT limits on GHG emissions from its Russell City Energy Center as part of the proposed federal PSD permit issued on behalf of EPA by the Bay Area Air Quality Management District. The Russell City permit will be a model for subsequent BACT determinations and it should be noted that there were no unreasonable conditions imposed by the permit.

From a pure business perspective, Calpine does not benefit from EPA's regulation of GHGs under the CAA since we are subject to the same requirements as our competitors and our new, efficient fleet is treated no differently than a company that has an old, inefficient fleet. For example, we are in the process of upgrading some of our combustion turbines to increase efficiency as well as electrical output by over 5 percent. These upgrades require an evaluation under the NSR program and to date there have been no impacts to the construction timeline as a

result of having to incorporate GHG requirements in addition to existing requirements for criteria pollutants.

Calpine appreciates the opportunity to express our support for EPA maintaining the authority to regulate GHGs under the CAA. We will continue to help EPA understand the issues related to GHG emissions from our sector so that they can continue to propose reasonable standards of performance.

If you have any questions please call me at 713-830-2004 or contact me via email at [donn@calpine.com](mailto:donn@calpine.com).

Sincerely,

A handwritten signature in black ink, appearing to read "Donald Neal". The signature is written in a cursive style with a large, looping initial "D".

Donald Neal  
Vice President, Environmental, Health and Safety  
Calpine Corporation

cc: EPA Administrator Lisa Jackson

Attachment

**ATTACHMENT****Regulation Under The CAA Does Not Establish A Cap On Emissions**

The major components of regulation of GHGs under the CAA are the PSD program and the NSPS program. In making the decision to regulate GHGs under the CAA, EPA chose not to establish a National Ambient Air Quality Standard (NAAQS), which would have required additional regulation. By choosing not to establish a NAAQS, EPA avoided the requirement for states to develop plans to attain a GHG NAAQS, which could have led to a cap and trade approach similar to those in place under the Acid Rain and Clean Air Interstate Rule programs. Thus EPA has taken the least intrusive path to GHG regulation.

With no cap on GHG emissions under the CAA there is no price on carbon. Placing a price on carbon is what has the potential to change the cost of electricity generation such that the existing dispatch order would be affected. Therefore, EPA's chosen path for regulation of GHGs under the CAA preserves the status quo.

**EPA Has Set The Applicability Thresholds High Enough To Not Affect Significant Efficiency Improvement Projects**

When EPA proposed the Tailoring Rule to establish the regulation of GHGs under the PSD program, it significantly increased the applicability thresholds under the CAA to reduce the number of sources impacted by the program yet ensure that the majority of GHG emissions from stationary sources would be regulated. In response to comments from industry (including Calpine), EPA increased the threshold yet again to allow plants to make significant efficiency improvements without triggering NSR for GHGs. Thus, NSR would only apply to modifications to existing units that would exceed 75,000 tons per year of GHGs. For a typical 500-megawatt old coal plant emitting 2,000 pounds of GHGs per megawatt hour generated, this would allow increasing GHG emissions by approximately 10 megawatts before NSR were triggered.

Calpine has first-hand experience with the GHG threshold and has found that there is no significant impact to our ability to modify our fleet. We are currently undertaking a plant efficiency upgrade project which will also result in an increase in total unit capacity. While the improvement will result in an improved heat rate and reduced greenhouse gas emissions per megawatt hour (MWh), due to the increased capacity the facility will also increase its GHG emissions. However, with the threshold level set by EPA, this modification would not be considered major under NSR.

Even if an efficiency improvement project were a major modification under NSR, the BACT analysis would focus on efficiency as the only commercially available technology to control GHG emissions and from that standpoint the proposal to increase efficiency would be considered BACT.

**EPA Guidance To States And Applicants Focuses On Efficiency And Not Alternative Fuels Or Control Technologies Such As Carbon Capture And Storage**

EPA established a deliberative, open process to provide guidance to applicants and permitting authorities on how to implement the GHG permitting requirements under the CAA (*PSD and Title V Permitting Guidance for Greenhouse Gases*, U.S. EPA 2010). This guidance sets forth an appropriate focus on efficiency as the only demonstrated method for controlling

GHG emissions. EPA deemed carbon capture and storage (CCS) as “available.” EPA notes that: “a control option is “available” if it has a potential for practical application to the emissions unit and the regulated pollutant under evaluation. Thus, even technologies that are in the initial stages of full development and deployment for an industry, such as CCS, can be considered ‘available’ as that term is used for the specific purposes of a BACT analysis under the PSD program.” EPA further clarifies that: “For these types of facilities, CCS should be listed in Step 1 of a top-down BACT analysis for GHGs. This does not necessarily mean CCS should be selected as BACT for such sources.”

BACT is defined in the CAA as: “an emissions limitation (including a visible emission standard) based on the maximum degree of reduction for each pollutant subject to regulation under the Clean Air Act which would be emitted from any proposed major stationary source or major modification which the Administrator, on a case-by-case basis, taking into account energy, environmental, and economic impacts and other costs, determines is achievable for such facility through application of production processes and available methods, systems, and techniques, including fuel cleaning, clean fuels, or treatment or innovative fuel combustion techniques for control of each such pollutant....” CCS clearly will not be considered BACT for GHGs for many years (if ever) due to cost and implementation considerations.

### **EPA’s BACT Guidance Clearly Defines The Criteria That Permitting Authorities Should Consider In Evaluating Efficiency And Ensure That Permit Applications Will Be Considered On A Case By Case Basis**

As discussed earlier, the applicability threshold for NSR is so high that very few efficiency projects proposed on existing EGUs will be subject to NSR for GHG. For new projects and major modifications that do trigger NSR for GHG, EPA’s BACT guidance provides clear and reasonable criteria for applicants and permitting authorities. The efficiency criteria simply require applicants to document the measures that any responsible power generation company already undertake. Most power companies strive to produce energy as efficiently as possible, so using efficiency as BACT for GHGs is simply business as usual and therefore should not impose any additional costs to power generators.

BACT is required to be considered on a case by case basis. Thus, an older coal unit would not be subject to the same efficiency benchmarks as a new combined cycle gas turbine unit. The unit under review, whether new and clean or old and less efficient, will be required under BACT to demonstrate the measures taken to ensure that electricity from that unit is generated as efficiently as possible considering the energy, economic and environmental impacts.

### **The NSPS Program Establishes A Floor For Emissions Performance That Is Quickly Exceeded By The NSR Program**

EPA is required under Section 111 of the CAA to establish NSPS for new and existing sources. EPA has indicated that it intends to propose NSPS for the electric generating sector by July 2011 in order to provide industry with regulatory certainty on GHGs that can be integrated with other rulemakings under the CAA to help drive long-term business decisions. EPA is in the

process of holding “listening sessions” with key stakeholder groups to gather data in anticipation of the proposed rulemaking. EPA’s comments at the first of those listening sessions held last week for the electric power industry indicate that the NSPS will be reasonable and will not include a proposal for a cap and trade program for GHG emissions.

In our experience, the NSPS is a program that is quickly superseded by the NSR program in terms of driving emission reductions. Calpine has not had to install any additional controls or make any other modifications to any of its units in response to recent NSPS for combustion turbines (see 40 CFR 60, Subpart KKKK) or changes to the NSPS for utility boilers (see 40 CFR 60, Subpart D).

We expect EPA to provide states flexibility in setting GHG limits on existing sources by establishing emission guidelines that reflect the limits on efficiency imposed by existing power generation technology. For example, the NSPS for combustion turbines will need to be tailored to the size of the turbine, the dispatch characteristics, maintenance cycles and other factors that affect efficiency of each unit. The same unit-specific factors apply to coal and oil fired units. This approach will allow states as diverse as California and Texas to use equivalent programs to demonstrate compliance with the federal emissions guidelines.

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Gilfillan/DC/USEPA/US**  
02/15/2011 03:05 PM

To Richard Windsor  
cc Michael Moats, Seth Oster  
bcc  
Subject AGO op-ed

Boss -

Wanted to make sure you saw the attached AGO op-ed - (b) (5) Deliberative  
[REDACTED]

Thanks.

(b) (5) Deliberative  
[REDACTED]

AGO Op Ed (EPA edits).doc  
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