



**Environmental Law & Policy Center**  
Protecting the Midwest's Environment and Natural Heritage

## ***Midwest Generation's "Unpaid Health Bills":***

*The Hidden Costs of Soot and Smog from the Fisk and Crawford Coal Plants in Chicago*



# Speakers



Howard Learner, Executive Director,  
Environmental Law & Policy Center



Dr. Kristi Pullen, Science Fellow,  
Environmental Law & Policy Center



Warren Lavey, Senior Fellow,  
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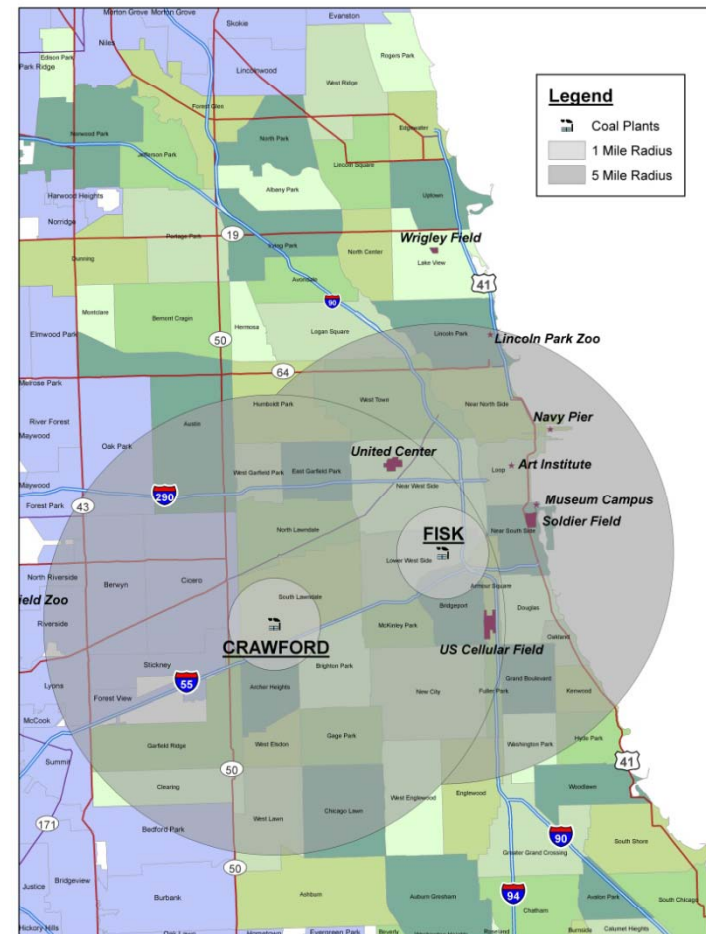
Alderman Joe Moore, 49<sup>th</sup> Ward  
Sponsor, Chicago Clean Power Ordinance

# Fisk and Crawford Coal Plants



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- Owned by Midwest Generation
- Located in more densely populated areas than any other coal plants in the nation
- **Fisk**
  - 1111 W. Cermak Rd., Pilsen
  - 326 MW plant
  - Originally built in 1903 and the rebuilt in 1959.
- **Crawford**
  - 3501 S. Pulaski Rd., Little Village
  - 532 MW plant (2 generating units)
  - Originally built in 1924, current generating units were built in 1958 and 1961



# Research on Health Impacts of Particulate Matter Since 2002 Harvard Study



- **2006 EPA Revised Standard for Particulate Matter**
  - Health effects associated with exposure to fine particulate matter (PM<sub>2.5</sub>) include premature death, non-fatal heart attacks, increased hospital admissions for respiratory and cardiovascular disease, etc.
- **2009 Integrated Science Assessment for Particulate Matter**
  - Found that a causal relationship exists between short- and long-term exposure to PM<sub>2.5</sub> and mortality, as well as cardiovascular effects.
- **2010 EPA Clean Air Transport Rule**
  - Found that reducing SO<sub>2</sub> and NO<sub>x</sub> in 31 States and D.C. would prevent 14,000 to 36,000 premature deaths, 21,000 cases of acute bronchitis and other harms.
  - Achieve \$120 billion - \$290 billion in savings nationwide, compared to \$2.8 billion in costs to the energy sector.
- **2010 National Research Council Report “Hidden Costs of Energy”**
  - Found that coal plant pollution created approximately \$62 billion in damages nationwide in 2005. Over 90% of this damage caused by PM.

# Economic Impact of Soot and Smog From the Fisk and Crawford Coal Plants (National Research Council)



**\$121 million per year (\$127 million in 2010 dollars)**

Pollutant	Crawford			Fisk		
	<u>Emissions Amount (tons)</u>	<u>Damages (\$ per ton)</u>	<u>Est. Damages (\$mil)</u>	<u>Emissions Amount (tons)</u>	<u>Damages (\$ per ton)</u>	<u>Est. Damages (\$mil)</u>
Sulfur dioxide	9,238	6,400	59.1	4,615	8,360	38.6
Nitrogen oxide	2,237	1,700	3.8	1,123	1,840	2.1
Fine particulates	457	17,500	8.0	203	38,900	7.9
Coarse particulates	841	821	0.7	359	1,890	0.7
	Total Estimated Damages		<u>\$71.6 million</u>	Total Estimated Damages		<u>\$49.3 million</u>
(National Research Council estimates using 2005 data and 2007 dollars)						

# Total Health Damages Since 2002: \$750 Million – 1 Billion

## Emissions and Damages have continued since 2002 Harvard study

- Total health damages of \$750 million - \$1 billion (using National Research Council model)
- Recent sulfur dioxide emissions from Fisk and Crawford similar to 1999 and 2005 levels
- Nitrogen oxides emissions in several recent years exceeded levels modeled by the National Research Council
- Direct particulate matter emissions increased in reported years



Fisk Coal Plant photo by Eric Allix Rogers

# Taking Action to Clean Up Fisk and Crawford



- **2006 Illinois Combined Pollutant Standard**
  - SO<sub>2</sub> reductions phase in through 2019
  - Does not address direct PM or CO<sub>2</sub>
- **2009 Lawsuit by U.S. Department of Justice and Illinois Attorney General against Midwest Generation**
  - Argues that Midwest Generation plants have been modified without proper permits and have exceeded opacity limits (a measurement of PM)
- **2010 Chicago Clean Power Ordinance**
  - Requires Fisk and Crawford plants to reduce PM pollution by 90% and CO<sub>2</sub> pollution by 50% within 3-4 year timeframe
  - Supported by a coalition of over 40 health, business, environmental and community groups
  - Currently in City Council Rules Committee

Please notify the operator if you would like to ask a question.

Download the report:

*Midwest Generation's "Unpaid Public Health Bills": The Hidden Costs of Soot and Smog from the Fisk and Crawford Coal Plants in Chicago*  
and related resources at [www.elpc.org/coalcosts](http://www.elpc.org/coalcosts)

Please refer other requests or follow up questions to:

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