

## Rep. Edward J. Acevedo

## Filed: 11/7/2011

## 09700SB1617ham002

LRB097 09940 JDS 59626 a

1	AMENDMENT TO SENATE BILL 1617
2	AMENDMENT NO Amend Senate Bill 1617 by replacing
3	everything after the enacting clause with the following:
4	"Section 1. Short title. This Act may be cited as the
5	Chicago Clean Power Act.
6	Section 10. Findings. The General Assembly finds that:
7	(1) current State and federal air pollution regulations do
8	not adequately address the impacts on human health of air
9	pollution from the coal-fired power plants in Chicago;
10	(2) the State has a continuing interest in regulating, and
11	the authority to regulate, air pollution emanating from sources
12	located within Chicago if those sources threaten the health of
13	persons residing within the city;
14	(3) 2 coal-fired power plants operate within the boundaries
15	of Chicago (the "Fisk" and "Crawford" plants);
16	(4) combustion of coal emits particulate matter and carbon

## dioxide;

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- 2 (5) power plant emissions are one of the primary causes of particulate matter and fine particulate matter air pollution;
- 4 (6) emissions from the Fisk and Crawford plants are a 5 source of particulate matter and carbon dioxide in Chicago's 6 atmosphere;
  - (7) the total atmospheric emissions of particulate matter and carbon dioxide from the Fisk and Crawford plants substantially exceed the emissions from other stationary fossil fuel combustion sources in Chicago;
- 11 (8) air pollution, particularly particulate matter, from
  12 the Fisk and Crawford plants degrades the air quality of
  13 Chicago, impairs visibility, and adversely affects the public
  14 health of the residents of Chicago, contributing to lung
  15 cancer, premature deaths, acute and chronic bronchitis,
  16 emergency room visits, asthma and other respiratory illnesses,
  17 and respiratory and cardiovascular hospital admissions;
  - (9) these health effects cause lost days of work and school;
- 20 (10) particulate matter from coal-fired power plants 21 located within densely populated urban areas, such as Chicago, 22 causes more damage per unit of emissions due to the higher rate 23 of human exposure to emissions;
- 24 (11) studies, such as "Particulate-Related Health Impacts
  25 of Emissions in 2001 from 41 Major US Power Plants" by Abt
  26 Associates in 2002 and "Extended Follow-Up and Spatial Analysis

- of the American Cancer Society Study Linking Particulate Air
- 2 Pollution and Mortality" by the Health Effects Institute in
- 3 2009, have shown that each 10 microgram per cubic meter
- 4 increase in the long-term average ambient concentrations of
- 5  $PM_{2.5}$  is associated with a 4% increased risk of death and an 8%
- 6 increased risk of lung cancer;
- 7 (12) studies, such as "Invited Commentary: Particulate
- 8 Matter-Mortality Exposure-Response Relations and Threshold" by
- 9 C. Arden Pope in the American Journal of Epidemiology in 2000
- and "Fine-Particulate Air Pollution and Life Expectancy in the
- 11 United States" by C. Arden Pope et al. in the New England
- 12 Journal of Medicine in 2009, have shown that exposure to
- 13 particulate matter (PM), especially  $PM_{2.5}$ , contributes to
- 14 cardiopulmonary disease mortality even at relatively low
- 15 concentrations;
- 16 (13) studies, such as "Invited Commentary: Particulate
- 17 Matter-Mortality Exposure-Response Relations and Threshold" by
- 18 C. Arden Pope in the American Journal of Epidemiology in 2000,
- 19 have shown that there is no safe threshold exposure level for
- 20 PM or  $PM_{2.5}$  and that there are mortalities and health effects at
- every level of exposure to PM and  $PM_{2.5}$ , that increase in direct
- 22 relation to exposure levels;
- 23 (14) studies, such as "Fine-Particulate Air Pollution and
- Life Expectancy in the United States" by C. Arden Pope et al.
- in the New England Journal of Medicine in 2009, have shown that
- 26 reducing the amount of PM and  $PM_{2.5}$  in the air increases life

- 1 expectancy;
- 2 (15) the residents of Chicago who are most vulnerable to
- 3 the harmful health effects of air pollution emanating from the
- 4 Fisk and Crawford plants are among the most economically
- 5 disadvantaged residents and those least able to pay for medical
- 6 care;
- (16) the harmful effects of air pollution from the Fisk and 7
- 8 Crawford plants are pronounced in those residents of Chicago
- 9 most vulnerable to air pollution, including children, senior
- 10 citizens, and people suffering from lung disease, heart
- 11 disease, and diabetes;
- (17) State and federal regulations that control emissions 12
- 13 from fossil fuel-fired power plants, as well as other
- 14 stationary sources, are designed to achieve regional,
- 15 interstate, and international air quality objectives, taking
- 16 into account cost and other factors;
- (18) State and federal regulations contain grandfathering 17
- 18 provisions that exempt major sources of air pollution that were
- 19 constructed prior to the effective date of the regulations from
- 20 certain air pollution control requirements;
- (19) the Fisk and Crawford plants have avoided the 21
- 22 application of certain State and federal requirements due to
- 23 the grandfathering provisions;
- 24 (20) due the age of the Fisk and Crawford plants and the
- 25 application of the grandfathering provision, the pollution
- 26 from these facilities is much higher than, and disproportionate

- to, newer, more modern coal-fired power plants;
- 2 (21) the human-induced increase in atmospheric greenhouse
- 3 gas concentrations, of which carbon dioxide is the most
- 4 significant component, is causing harmful changes to the
- 5 climate now and will cause significantly more harm in the
- future if greenhouse gas emissions are not reduced immediately;
- 7 (22) the United States Environmental Protection Agency in
- 8 its Proposed Endangerment Findings on Greenhouse Gases, 74 Fed.
- 9 Reg. 18886 (April 24, 2009), found that the negative effects
- 10 from this human-induced elevation in the atmospheric
- 11 concentration of greenhouse gases include:
- 12 (A) a warming world climate, with the United States
- expected to warm more than the global average;
- 14 (B) more frequent, more intense heat waves;
- 15 (C) droughts;
- 16 (D) more intense precipitation, including flooding;
- 17 (E) more intense hurricanes and other storms;
- 18 (F) damage to water resources; and
- 19 (G) harm to ecosystems and wildlife;
- 20 (23) studies, such as "Confronting Climate Change in the
- 21 U.S. Midwest: Illinois" by the Union of Concerned Scientists in
- 22 2009, have found that if current pollution trends continue,
- 23 then greenhouse gas emissions will cause the following
- 24 consequences for Chicago:
- 25 (A) hotter summers filled with regular heat waves;
- 26 (B) worse air and water quality;

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1		(C)	heavier	rains	causing	more	e f	frequent	flash
2	floc	ding;	and						
3		(D) 1	ower lak	ke levels;					
4	(24)	the	Fourth	Assessmen	nt Report	of	the	United	Nations

- (24) the Fourth Assessment Report of the United Nations
  Intergovernmental Panel on Climate Change has established that
  hot temperatures and extreme weather will cause increased
  adverse health impacts from:
  - (A) heat-related mortality;
  - (B) worse air quality;
- 10 (C) storm-related fatalities and injuries; and
- 11 (D) infectious diseases;
- 12 (25) the State must take measures to avoid this irreparable 13 harm to Chicago's environment and the health of its residents;
- (26) electricity generation emits a greater share of carbon dioxide than any other sector of the United States economy, and the generation of electricity from coal emits the most carbon dioxide of any method of electricity generation;
  - (27) State and federal air pollution regulations currently do not adequately address local impacts on human health of particulate matter and carbon dioxide emissions from the Fisk and Crawford plants;
  - (28) reducing the emissions of particulate matter and carbon dioxide from the Fisk and Crawford plants will improve the health and quality of life of the residents of Chicago generally and those living in proximity to the Fisk and Crawford plants in particular;

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L	(29) demonstrated technology is available to significantly
2	reduce emissions of particulate matter and carbon dioxide from
3	coal or other high carbon content fuel combustion at power
1	plants, including, but not limited to, the use of natural gas
5	as the primary fuel; and

- (30) to address impacts on human health and the environment of particulate matter and carbon dioxide emissions from the Fisk and Crawford plants, the State shall enact this Act, which is modeled after the Chicago Clean Power Ordinance introduced in the Chicago City Council in July 2011.
- 11 Section 15. Definitions. For the purposes of this Act:
- "Agency" means the Illinois Environmental Protection
  Agency established under the Environmental Protection Act.
- "Approved method" means the following:
- 15 (1) USEPA Method 202 for condensable PM; and
- 16 (2) The following methodologies for filterable  $PM_{2.5}$ , 17  $PM/PM_{10}$  and  $CO_2$ :
  - (A) that methodology specified in an applicable final air emission permit issued by the Agency for the coal-fired power plant unit for measuring emissions of filterable  $PM_{2.5}$ ,  $PM/PM_{10}$ , or  $CO_2$ ; or
  - (B) in the event the Agency has not specified a methodology for one or more of filterable  $PM_{2.5}$ ,  $PM/PM_{10}$ , or  $CO_2$ , that methodology specified in an applicable final air emission permit issued by the

USEPA for the coal-fired power plant unit for measuring those emissions of  $PM_{2.5}$ ,  $PM/PM_{10}$ , or  $CO_2$ ; or

(C) in the event neither the Agency nor the USEPA has specified a methodology for one or more of filterable PM<sub>2.5</sub>, PM/ PM<sub>10</sub>, or CO<sub>2</sub> that methodology shall be that specified in the "Compliance Assurance Monitoring" standards promulgated by USEPA, 40 C.F.R. § 64 or the "New Stationary Source" performance standards for Electric Utility Steam Generating Units, Subpart Da, also promulgated by USEPA, 40 C.F.R. § 60.47Da.

"BTU" means British thermal unit, that is, the amount of heat necessary to raise the temperature of one pound of water from  $39^{\circ}F$  to  $40^{\circ}F$ .

"CO2" means carbon dioxide.

"Coal-fired power plant" means a facility with one or more electric utility steam-generating units that burns coal, coal refuse, or a synthetic gas derived from coal, or any other high carbon content fuel, either exclusively, in any combination together, or in any combination with other fuels in any amount. Provided, neither the producer nor distributor of the electric power output need qualify as a "public utility" as that term is defined in the Public Utilities Act.

"Electric utility steam-generating unit" shall have the same meaning as defined at 40 C.F.R. §60.41Da, and is capable of combusting more than 73 megawatts (250 million BTU per hour)

- 1 heat input of fossil fuel (either alone or in combination with
- any other fuel), provided, neither the producer nor distributor 2
- of the electric power output need qualify as a "public utility" 3
- 4 as that term is defined in Public Utilities Act.
- 5 "Emission factor" means the average emission rate of a
- pollutant (i.e., tons of  $CO_2$ ) per a unit of activity (i.e., 6
- million BTU of fuel consumed). Emission factors include but are 7
- 8 not limited to those set forth in Appendix H of the Energy
- 9 Information Administration's Instructions for Form EIA-1605
- 10 (Nov. 18, 2009) and those set forth in the International Panel
- 11 on Climate Change's Emission Factor Database.
- "Facility" 12 means any commercial, industrial,
- 13 residential establishment which contains one or more regulated
- 14 areas or units of regulated equipment. A facility may consist
- 15 of more than one building or structure where all lots are
- 16 contiguous and the parts of the facility are functionally
- 17 related.
- 18 "High carbon content fuel" shall include any one or more of
- 19 the following: (i) any fuel whose emission factor is greater
- 20 than or equal to 135 pounds of  $CO_2$  per million BTU, (ii) any
- gaseous, liquid, or solid fuel derived from a fuel whose 21
- 22 emission factor is greater than or equal to 135 pounds of  $CO_2$
- 23 per million BTU, or (iii) both.
- 24 "Owner or operator" shall have the same meaning as defined
- 25 at 40 C.F.R. § 60.2.
- 26 "Particulate matter" means any finely divided solid or

- 1 liquid material, or condensable substance, other than
- uncombined water, emitted to the ambient air. 2
- "Person" means an individual, trust, firm, joint stock 3
- 4 company, corporation, government corporation, limited
- 5 liability company, partnership, association, State,
- 6 municipality, commission, political subdivision of a State, or
- 7 any interstate body and shall include each department, agency
- 8 and instrumentality of the United States.
- 9 "PM" means particulate matter.
- 10 "PM2 5" means any particulate matter with an aerodynamic
- 11 diameter less than or equal to a nominal two and one half
- micrometers. 12
- 13 " $PM_{10}$ " means any particulate matter with an aerodynamic
- 14 diameter less than or equal to a nominal ten micrometers.
- 15 "Responsible official" shall have the same meaning as
- 16 defined at 40 C.F.R. § 70.2.
- "USEPA" means the United States Environmental Protection 17
- 18 Agency.
- 19 Section 20. Emissions Limits.
- 20 (a) A coal-fired power plant located within a municipality
- 21 with a population of 1,000,000 or more inhabitants shall not
- 22 emit pollutants into the atmosphere in excess of any of the
- following levels: 23
- 24 (1) Within one year after the effective date of this
- 25 Act, emissions of particulate matter shall not exceed:

_	(A) an	emission	rate	for	total	$PM/PM_{10}$	of 0.	.015
2	pounds per	million BT	U of	actua	l heat	input in	n any	one
3	hour period	as measure	ed by	an ap	proved	method;	and	

- (B) an emission rate for  $PM_{2.5}$ , including filterable and condensable, of 0.010 pounds per million BTU of actual heat input in any one-hour period as measured by an approved method.
- (2) Within 3 years after the effective date of this Act, emissions of  $CO_2$  shall not exceed an emission rate of 120.36 pounds per million BTU of actual heat input calculated over a 30-day period.
- (b) An owner of 2 or more electric utility steam-generating units at the same coal-fired power plant within a municipality with a population of 1,000,000 or more inhabitants shall have one additional year to meet the emissions limits contained in subsection (a) of this Section.
- (c) All coal-fired power plants located within a municipality with a population of 1,000,000 or more inhabitants are prohibited from complying with the emissions limits contained in this Section by converting from coal as their primary fuel to another high carbon content fossil fuel.
- Section 25. Compliance plan. Each person who owns or operates a coal-fired power plant within a municipality with a population of 1,000,000 or more inhabitants shall submit to the Agency an initial compliance plan by January 1, 2013 and an

updated compliance plan by January 1, 2014 and every January 1 thereafter until January 1, 2017. "Compliance plan", as used in this Section, means a written plan that identifies milestone tasks necessary for the coal-fired power plant to achieve compliance with the emission limitations set forth in Section 20 of this Act and contains, at a minimum, dates for completion of preliminary and final designs, awarding contracts and completion of construction, and installation of pollution control equipment necessary to achieve compliance and plans to assure retention or retraining of any employee whose job may be affected by such compliance.

Section 30. Reporting.

- (a) Each owner or operator of a coal-fired power plant located within a municipality with a population of 1,000,000 or more inhabitants shall submit the following to the Agency:
  - (1) By February 1 of each year, a written report identifying the name, address, and telephone number of each person who owns or operates the coal-fired power plant and, if such a person is a corporation, its state of incorporation and registered agent;
  - (2) By February 1 of each year, a written report which calculates, using an approved method, the emissions of  $PM_{2.5}$ ,  $PM/PM_{10}$ , and  $CO_2$  from that electric utility steam-generating unit at that coal-fired power plant, measured in pounds per million BTU heat input, for the

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1 months of January through December of the preceding year, 2 recalculated monthly;

- (3) By the 15th of each month, or, should the 15th fall a holiday or weekend day, the next business day thereafter, a written report which calculates, using an approved method, the emissions of  $PM_{2.5}$ ,  $PM/PM_{10}$ , and  $CO_2$ from that electric utility steam-generating unit at each coal-fired power plant, measured in pounds per million BTU heat input, for the preceding month.
- (4) Within 10 business days after its submission to USEPA, any report or data pertaining to emissions of PM<sub>2.5</sub>,  $PM/PM_{10}$ , and  $CO_2$  from the coal-fired power plant, including the results of any stack test, submitted in the same form as submitted to USEPA.
- (b) Each of the reports required under subsection (a) of this Section must be signed by a responsible official of the coal-fired power plant and contain a certification by such official, under penalty of law, as to each report's truth, accuracy, and completeness.
- (c) All reports calculating emissions of  $PM_{2.5}$  and  $PM/PM_{10}$ , to be submitted under subsection (a) of this Section shall document downtime or calibration failure of any continuous emission monitoring equipment required to be operated, calibrated and maintained by Subpart L (Continuous Monitoring) of Agency Air Pollution Regulations, 35 Ill. Adm.

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- 1 (d) All reports of emissions required to be submitted under 2 this Section shall report emissions as measured by an approved method. 3
  - (e) Emission reporting requirements under subsection (a) of this Section may be satisfied, in whole or in part, by providing the Agency with an emission report submitted to the Agency or USEPA provided that the submitted report is supplemented as necessary to fully comply with the emission reporting requirements of subsection (a) of this Section.
  - (f) Any coal-fired power plant that has met the emissions limits of Section 20 of this Act or avoided the applicability of Section 20 of this Act by substituting fuels must submit a written report to the Agency within 30 days after the substitution verifying that the substitute fuel is not a high carbon content fuel. Such a report must be signed by a responsible official of the coal-fired power plant and contain a certification by the official, under penalty of law, as to the report's truth, accuracy and completeness.
- 19 Section 35. Enforcement.
- 2.0 (a) The Agency shall have the authority to investigate 21 alleged violations of this Act and refer violations to the 22 Attorney General or the State's Attorney of the county in which 23 the violation occurred. Prior to referring the violation to the 24 Attorney General or the State's Attorney of the county in which 25 the violation occurred, the Agency shall serve upon that

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- 1 person, either in person or by certified mail, return receipt requested, a written notice informing that person of any one or 2 3 more of the following:
  - (1) the nature and location of the alleged violation of the emissions limits established by Section 20 of this Act, the period over which the calculation of emissions was performed, and the intention to commence an action;
  - (2) the failure to submit a compliance plan as required by Section 25 of this Act, the date the compliance plan was due, the specific deficiencies with the compliance plans submitted, if any, and the intention to commence an action; or
  - (3) the failure to submit a report as required by Section 30 of this Act, the date the report was due, the specific deficiencies with the report submitted, if any, and the intention to commence an action.
  - (b) After receiving notice of a violation from the Agency under subsection (a) of this Section, the Attorney General, or the State's Attorney in the county in which the violation occurred, at the request of the Agency, or on his or her own motion, may bring an action in the name of the People of the State of Illinois to restrain conduct that violates Sections 20, 25, or 30 of this Act, to compel abatement of a violation of Section 20 of this Act, to compel submission of a compliance plan as required under Section 25 of this Act, to compel submission of a report as required by Section 30 of this Act or

- 1 to take such other action as may be necessary, including the recovery of any applicable penalties and costs. 2
- 3 (c) If the court finds a person liable for a violation of 4 this Act, then the court may award the Attorney General, or the 5 State's Attorney in the county in which the violation occurred, costs of litigation, including reasonable attorney and expert 6 witness fees and costs. This allowance shall be a part of the 7 8 costs of the litigation assessed against the defendant, and may 9 be recovered as such.
- 10 Section 40. Violation of emission limits.
- (a) A violation of any of the provisions of Section 20 of 11 12 this Act is considered to be a public nuisance.
- 13 (b) Each instance in which a coal-fired power plant emits 14 PM,  $PM_{2.5}$ ,  $PM_{10}$ , or  $CO_2$  into the atmosphere in excess of the 15 limits in Section 20 of this Act is a violation of this Act. Each one-hour period in which the PM,  $PM_{10}$ , or  $PM_{2.5}$  limits of 16 17 Section 20 of this Act are exceeded is a separate and distinct violation. Each one-day period in which the CO2 limits of 18 Section 20 of this Act are exceeded is a separate and distinct 19 20 violation.
- 21 (c) Any person found to have violated any of the provisions 22 of Section 20 of this Act shall be liable for a civil penalty of not less than \$5,000 and not more than \$10,000 for each 23 24 violation.

- 1 Section 45. Applicability. Emissions from a coal-fired
- power plant which occur prior to the effective date of this 2
- 3 amendatory Act of the 97th General Assembly shall not render a
- 4 person liable under this Act.
- 5 Section 50. Conflicts with other laws. If there is any
- conflict between the provisions of this Act and the provisions 6
- 7 of any other State or local statute, rule, regulation, or
- 8 ordinance, the provisions of this Act shall control.
- 9 Section 55. Existing remedies. This Act does not abrogate
- or waive any statutory or common law cause of action, 10
- administrative remedy, or defense otherwise available to the 11
- State and existing before the effective date of this amendatory 12
- 13 Act of the 97th General Assembly.
- 14 60. Rulemaking. The Illinois Environmental
- 15 Protection Agency may adopt rules necessary to implement this
- 16 Act.
- Section 97. Severability. The provisions of this Act are 17
- 18 severable under Section 1.31 of the Statute on Statutes.
- 19 Section 99. Effective date. This Act takes effect June 1,
- 20 2012.".