R	14	-1	0

# Therriault, John

From:Sierra Club <jennifer.hensley@sierraclub.org> on behalf of Errole Ross<br/><erroleross@sbcglobal.net>Sent:Wednesday, May 07, 2014 1:48 AMTo:Therriault, JohnSubject:R14-10: We Need Coal Ash Rules that Protect Public Health and the Environment:

May 7, 2014

Clerk of the IPCB John Therriault

Dear Clerk of the IPCB Therriault,

Coal combustion produces dangerous coal ash waste that contains mercury, arsenic, lead and other health-threatening pollutants that are leaching into our water supplies. These deadly pollutants increase severe health risks including cancer, neurological disorders, birth defects, reproductive failure, asthma and other serious illnesses. We need the proposed rules for regulation coal combustion in Illinois waste to be strengthened!

Rules governing coal ash pits must include key protections!

Groundwater Contamination:

- Impoundments causing groundwater impairment must be closed by a set date to fully protect the environment and human health.

-Complete removal of waste should be considered as the presumptive closure strategy.

Surface water Contamination:

-The draft rules do not require that threats to surface water be assessed and as such leave downstream waterways vulnerable to toxic pollutants. The rules must protect surface waters from contamination.

Public Participation and Notice:

-Citizens should have the right to be informed and participate in decisions regarding what is to be done with coal combustion waste in their communities.

-The rules must give the public ample time (60 days) to comment meaningfully on any facility's plan and allow the IEPA to hold a public meeting on the plan where there is significant interest.

Financial Burden:

-The weight of coal ash problems is a tremendous burden that communities should not have to bear. The rules should require power companies to provide financial assurances for the coal ash pits at all operating and retired power plants.

I urge you to please stand up for the health and safety of Illinois families by strengthening the IEPA's proposed rules on coal combustion waste at power plants in Illinois!

Sincerely,

Errole Ross 4031 N Albany Ave Chicago, IL 60618-2501

Sierra Club <jennifer.hensley@sierraclub.org> on behalf of Gail Stevenson <gailee9< th=""></gailee9<></jennifer.hensley@sierraclub.org>
@yahoo.com>
Wednesday, May 07, 2014 1:27 AM
Therriault, John
R14-10: We Need Coal Ash Rules that Protect Public Health and the Environment:

May 7, 2014

Thomas

Clerk of the IPCB John Therriault

Dear Clerk of the IPCB Therriault,

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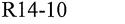
I urge you to please stand up for the health and safety of Illinois families by strengthening the IEPA's proposed rules on coal combustion waste at power plants in Illinois!

Sincerely,

Gail Stevenson 2333 N Neva Ave Chicago, IL 60707-2820 (773) 385-9984

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# Therriault, John

From:	Sierra Club <jennifer.hensley@sierraclub.org> on behalf of Laura Harting <lkharting@hotmail.com></lkharting@hotmail.com></jennifer.hensley@sierraclub.org>
Sent:	Wednesday, May 07, 2014 1:23 AM
То:	Therriault, John
Subject:	R14-10: We Need Coal Ash Rules that Protect Public Health and the Environment:

May 7, 2014

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I urge you to please stand up for the health and safety of Illinois families by strengthening the IEPA's proposed rules on coal combustion waste at power plants in Illinois!

Sincerely,

Laura Harting 1501 E Gardner Ln Apt 1122 Peoria Heights, IL 61616-3609 (309) 648-5102

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#### Therriault, John

From:	Sierra Club <jennifer.hensley@sierraclub.org> on behalf of Kay Monroe <kkmon@att.net></kkmon@att.net></jennifer.hensley@sierraclub.org>	
Sent:	Wednesday, May 07, 2014 1:16 AM	
То:	Therriault, John	
Subject:	R14-10: We Need Coal Ash Rules that Protect Public Health and the Environment:	

May 7, 2014

Clerk of the IPCB John Therriault

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Sincerely,

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1600 Waverly Dr Collinsville, IL 62234-2953 (618) 346-4811

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Comment  $\#^{1}-349-$ 

# Therriault, John

From:	Sierra Club <jennifer.hensley@sierraclub.org> on behalf of Katherine Valerugo <keroche20@yahoo.com></keroche20@yahoo.com></jennifer.hensley@sierraclub.org>
Sent:	Wednesday, May 07, 2014 11:52 AM
То:	Therriault, John
Subject:	R14-10: We Need Coal Ash Rules that Protect Public Health and the Environment:

May 7, 2014

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Clerk of the IPCB John Therriault

Dear Clerk of the IPCB Therriault,

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Sincerely,

Katherine Valerugo 3605 N Bell Ave # 3 Chicago, IL 60618-4819

Therriault, John	
From:	Sierra Club <jennifer.hensley@sierraclub.org> on behalf of Sarah Love <sjanelove@att.net></sjanelove@att.net></jennifer.hensley@sierraclub.org>
Sent:	Wednesday, May 07, 2014 11:52 AM
То:	Therriault, John
Subject:	R14-10: We Need Coal Ash Rules that Protect Public Health and the Environment:

May 7, 2014

Clerk of the IPCB John Therriault

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Sincerely,

	Sarah Love
**	110 Lincoln Ave Apt 3f
	Riverside, IL 60546-1998
	(708) 442-7330

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Comment #<sup>1</sup>

-351-

# Therriault, John

From:Sierra Club <jennifer.hensley@sierraclub.org> on behalf of Jeffrey Courter<br/>>jeffreycourter@yahoo.com>Sent:Wednesday, May 07, 2014 11:46 AMTo:Therriault, JohnSubject:R14-10: We Need Coal Ash Rules that Protect Public Health and the Environment:

May 7, 2014

Clerk of the IPCB John Therriault

Dear Clerk of the IPCB Therriault,

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Sincerely,

Jeffrey Courter 2844 Alexander Cres Flossmoor, IL 60422-1702 (773) 712-5280

Therriault, John		
From:	Sierra Club <jennifer.hensley@sierraclub.org> on behalf of Randy Mermel <geodomedad@gmail.com></geodomedad@gmail.com></jennifer.hensley@sierraclub.org>	
Sent:	Wednesday, May 07, 2014 11:31 AM	
То:	Therriault, John	
Subject:	R14-10: We Need Coal Ash Rules that Protect Public Health and the Environment:	

May 7, 2014

Clerk of the IPCB John Therriault

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R14-10

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I urge you to please stand up for the health and safety of Illinois families by strengthening the IEPA's proposed rules on coal combustion waste at power plants in Illinois!

Sincerely,

Randy Mermel

6524 Belvidere Rd Roscoe, IL 61073-9360 (630) 546-4379

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Comment  $\#^1 - 353 -$ 

# Therriault, John

From:	Sierra Club <jennifer.hensley@sierraclub.org> on behalf of Alana Zalas <aparvey@gmail.com></aparvey@gmail.com></jennifer.hensley@sierraclub.org>
Sent:	Wednesday, May 07, 2014 11:30 AM
То:	Therriault, John
Subject:	R14-10: We Need Coal Ash Rules that Protect Public Health and the Environment:

May 7, 2014

Clerk of the IPCB John Therriault

Dear Clerk of the IPCB Therriault,

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Sincerely,

Alana Zalas 5245 N Winthrop Ave Apt 2s Chicago, IL 60640-2323

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# Therriault, John

From:	Sierra Club <jennifer.hensley@sierraclub.org> on behalf of Robert Kiczula <papa9599< th=""></papa9599<></jennifer.hensley@sierraclub.org>	
	@gmail.com>	
Sent:	Wednesday, May 07, 2014 11:24 AM	
To:	Therriault, John	
Subject:	R14-10: We Need Coal Ash Rules that Protect Public Health and the Environment:	

May 7, 2014

Clerk of the IPCB John Therriault

Dear Clerk of the IPCB Therriault,

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Sincerely,

Robert Kiczula	·
355 W Palatine Rd	
Palatine, IL 60067-4988	
(847) 769-1432	

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# Therriault, John

From:	Sierra Club <jennifer.hensley@sierraclub.org> on behalf of E&amp;P LeFort <leforts@earthlink.net></leforts@earthlink.net></jennifer.hensley@sierraclub.org>
Sent:	Wednesday, May 07, 2014 11:23 AM
То:	Therriault, John
Subject:	R14-10: We Need Coal Ash Rules that Protect Public Health and the Environment:

May 7, 2014

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Dear Clerk of the IPCB Therriault,

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Sincerely,

E&P LeFort 860 Saddlewood Dr Glen Ellyn, IL 60137-3202

From:	Sierra Club <jennifer.hensley@sierraclub.org> on behalf of Cindy Parrone <cparrone@diederichgroup.com></cparrone@diederichgroup.com></jennifer.hensley@sierraclub.org>	
Sent:	Wednesday, May 07, 2014 11:19 AM	
То:	Therriault, John	
Subject:	R14-10: We Need Coal Ash Rules that Protect Public Health and the Environment:	

May 7, 2014

Therriault, John

Clerk of the IPCB John Therriault

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R14-10

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Sincerely,

Cindy Parrone

PO Box 103 Murphysboro, IL 62966-0103

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Comment #<sup>1</sup>-

# Therriault, John

From:Sierra Club <jennifer.hensley@sierraclub.org> on behalf of Mary Galloway<br/><hanahmjg@yahoo.com>Sent:Wednesday, May 07, 2014 11:18 AMTo:Therriault, JohnSubject:R14-10: We Need Coal Ash Rules that Protect Public Health and the Environment:

May 7, 2014

Clerk of the IPCB John Therriault

Dear Clerk of the IPCB Therriault,

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Sincerely,

Mary Galloway
900 S River Rd Apt 3c
Des Plaines, IL 60016-6763

Therriault, John		
From:	Sierra Club <jennifer.hensley@sierraclub.org> on behalf of Valerie Roberts <valroberts@yahoo.com></valroberts@yahoo.com></jennifer.hensley@sierraclub.org>	
Sent:	Wednesday, May 07, 2014 11:18 AM	
То:	Therriault, John	
Subject:	R14-10: We Need Coal Ash Rules that Protect Public Health and the Environment:	

May 7, 2014

Clerk of the IPCB John Therriault

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R14-10

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Sincerely,

Valerie Roberts

4256 N Bernard St Chicago, IL 60618-1131

R	14-	10



# Therriault, John

From:	Sierra Club <jennifer.hensley@sierraclub.org> on behalf of Katie Young <kayoung7766 @gmail.com&gt;</kayoung7766 </jennifer.hensley@sierraclub.org>
Sent:	Wednesday, May 07, 2014 11:16 AM
То:	Therriault, John
Subject:	R14-10: We Need Coal Ash Rules that Protect Public Health and the Environment:

May 7, 2014

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Sincerely,

Katie Young 3509 N Oketo Ave Chicago, IL 60634-3425 (773) 889-3623

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### Therriault, John

From:	Sierra Club <jennifer.hensley@sierraclub.org> on behalf of Rosa Perea <rosa@ccjuandiego.org></rosa@ccjuandiego.org></jennifer.hensley@sierraclub.org>
Sent:	Wednesday, May 07, 2014 11:16 AM
То:	Therriault, John
Subject:	R14-10: We Need Coal Ash Rules that Protect Public Health and the Environment:

May 7, 2014

Clerk of the IPCB John Therriault

Dear Clerk of the IPCB Therriault,

Coal combustion produces dangerous coal ash waste that contains mercury, arsenic, lead and other health-threatening pollutants that are leaching into our water supplies. These deadly pollutants increase severe health risks including cancer, neurological disorders, birth defects, reproductive failure, asthma and other serious illnesses. We need the proposed rules for regulation coal combustion in Illinois waste to be strengthened!

Rules governing coal ash pits must include key protections!

Groundwater Contamination:

- Impoundments causing groundwater impairment must be closed by a set date to fully protect the environment and human health.

-Complete removal of waste should be considered as the presumptive closure strategy.

Surface water Contamination:

-The draft rules do not require that threats to surface water be assessed and as such leave downstream waterways vulnerable to toxic pollutants. The rules must protect surface waters from contamination.

Public Participation and Notice:

-Citizens should have the right to be informed and participate in decisions regarding what is to be done with coal combustion waste in their communities.

-The rules must give the public ample time (60 days) to comment meaningfully on any facility's plan and allow the IEPA to hold a public meeting on the plan where there is significant interest.

Financial Burden:

-The weight of coal ash problems is a tremendous burden that communities should not have to bear. The rules should require power companies to provide financial assurances for the coal ash pits at all operating and retired power plants.

I urge you to please stand up for the health and safety of Illinois families by strengthening the IEPA's proposed rules on coal combustion waste at power plants in Illinois!

Sincerely,

Rosa Perea

8908 S Exchange Ave Chicago, IL 60617-3123 (773) 731-0109

23

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Comment  $\#^{1}$ -361-

# Therriault, John

From:	Sierra Club <jennifer.hensley@sierraclub.org> on behalf of Tom Kuzera <tkuzera2 @juno.com&gt;</tkuzera2 </jennifer.hensley@sierraclub.org>
Sent:	Wednesday, May 07, 2014 11:01 AM
То:	Therriault, John
Subject:	R14-10: We Need Coal Ash Rules that Protect Public Health and the Environment:

May 7, 2014

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Dear Clerk of the IPCB Therriault,

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Sincerely,

Tom Kuzera 14624 S Short St Posen, IL 60469-1328 (708) 388-3151

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Comment  $\#^{1} - 362 -$ 

## Therriault, John

From:	Sierra Club <jennifer.hensley@sierraclub.org> on behalf of Brian Schneden <brian@writingbold.com></brian@writingbold.com></jennifer.hensley@sierraclub.org>
Sent:	Wednesday, May 07, 2014 10:54 AM
То:	Therriault, John
Subject:	R14-10: We Need Coal Ash Rules that Protect Public Health and the Environment:

May 7, 2014

Clerk of the IPCB John Therriault

Dear Clerk of the IPCB Therriault,

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Sincerely,

Brian Schneden

1612 Lonsdale Ave Apt 108 Naperville, IL 60540-5150 (847) 302-6300

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# - 363-

# Therriault, John

From:	Sierra Club <jennifer.hensley@sierraclub.org> on behalf of Joyce Jolliff <jhjolliff@gmail.com></jhjolliff@gmail.com></jennifer.hensley@sierraclub.org>
Sent:	Wednesday, May 07, 2014 10:49 AM
То:	Therriault, John
Subject:	R14-10: We Need Coal Ash Rules that Protect Public Health and the Environment:
То:	Therriault, John

May 7, 2014

Clerk of the IPCB John Therriault

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I urge you to please stand up for the health and safety of Illinois families by strengthening the IEPA's proposed rules on coal combustion waste at power plants in Illinois!

Sincerely,

Joyce Jolliff 2084 Mallard Ln Carbondale, IL 62902-0843 (618) 549-8237

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Comment  $\#^{1}$ -364-

### Therriault, John

From:	Sierra Club <jennifer.hensley@sierraclub.org> on behalf of Carmen Lewis <clewis@k3county.net></clewis@k3county.net></jennifer.hensley@sierraclub.org>
Sent:	Wednesday, May 07, 2014 10:31 AM
То:	Therriault, John
Subject:	R14-10: We Need Coal Ash Rules that Protect Public Health and the Environment:

May 7, 2014

Clerk of the IPCB John Therriault

Dear Clerk of the IPCB Therriault,

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Sincerely,

Carmen Lewis	
909 W Park Dr	
Kankakee, IL 60901-2927	
(815) 936-5860	1

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Comment  $\#^{1}$ -365-

## Therriault, John

From:	Sierra Club <jennifer.hensley@sierraclub.org> on behalf of Kathy Negaard <katnegaard@gmail.com></katnegaard@gmail.com></jennifer.hensley@sierraclub.org>
Sent:	Wednesday, May 07, 2014 10:25 AM
То:	Therriault, John
Subject:	R14-10: We Need Coal Ash Rules that Protect Public Health and the Environment

May 7, 2014

Clerk of the IPCB John Therriault

Dear Clerk of the IPCB Therriault,

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Sincerely,

Kathy Negaard 1128 3rd Street A Moline, IL 61265-1212 (309) 762-6733

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Comment  $\#^{1}-366-$ 

## Therriault, John

From:	Sierra Club <jennifer.hensley@sierraclub.org> on behalf of Laura Long <lauralynn7 @gmail.com&gt;</lauralynn7 </jennifer.hensley@sierraclub.org>
Sent:	Wednesday, May 07, 2014 10:24 AM
То:	Therriault, John
Subject:	R14-10: We Need Coal Ash Rules that Protect Public Health and the Environment:

May 7, 2014

Clerk of the IPCB John Therriault

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Sincerely,

Laura Long

3757 N Clifton Ave Chicago, IL 60613-3875

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Comment #<sup>1</sup>-

# Therriault, John

From:	Sierra Club <jennifer.hensley@sierraclub.org> on behalf of Erwin Brinkman <efb3500< th=""></efb3500<></jennifer.hensley@sierraclub.org>
	@aol.com>
Sent:	Wednesday, May 07, 2014 10:22 AM
То:	Therriault, John
Subject:	R14-10: We Need Coal Ash Rules that Protect Public Health and the Environment:

May 7, 2014

Clerk of the IPCB John Therriault

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Sincerely,

(773) 889-0366

Erwin Brinkman	
 3500 N Oketo Ave	
Chicago, IL 60634-3424	

R2014-010 Public Comment Coal Combustion Waste (CCW) Ash Ponds and Surface Impoundments at Power Generating 4 Board Member: O'Leary, J. D. Hearing Officer: Fox, T. May 7, 2014

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#### Introduction

Imagine standing on the dock at the end of your property, property acquired as the culmination of 30 years of labor—labors that fed, housed, and schooled your children, giving them opportunities to which you never had access. The dock stretches out over the water and into the darkness. The only sound is the murmuring of the black water below. The stars above are the single source of light, and they tell the stories of Greek hunters and heroes, their dogs, their prey, and their adversaries. Bulls and bears, lions and rams and dragons slowly rotate over the dark blue canopy. Imagine walking up a slope of lush grass and soft loam to your cabin, accompanied by the serenade of frogs and insects. Inside, you lay your head against the pillow and nestle into the familiar warmth of your sleeping wife. She purs contentment and continues the deep breath of sleep. You are at rest. A symphony of crickets is homage to the life's work you accomplished.

Imagine the night shattered with a booming crack, rolling thunder, and the explosive pop of trees snapping. You run to the window to see fauna fleeing ahead of a pyroclastic-type flow. Your home is suddenly torn from its moorings and carried away. Furniture is upended; pictures fly off the walls; and glass is shattering around you. The house is moving in the palm of some invisible hand that collapses your walls and pops the drywall from its studs. Tossed from your feet and thrown from her bed, you and your wife find yourselves six inches deep in thick and viscous muck. The house shutters to a stop. You help your wife through a window and follow her. The same muck has covered the countryside, devastation as far as the eye can see.

But this is not Mount Saint Helens or Pinatubo. This is Tennessee. On December 22, 2008, the earthen damn holding back five decades of wet coal ash succumbed to the strain, and 5.4 million cubic yards—over one billion gallons—of coal ash spilled over 300 acres of prime recreational area and eventually into three rivers. The tidal wave of ash destroyed three homes,

washed away docks, and erased whole sections of railroad and roads. The lovely countryside was now a moonscape. The Kingston Fossil Plant spill is the largest industrial disaster in United States history and an engineering and environmental ordeal. This nightmare repeated itself on February 2nd, 2014, when 39,000 tons of coal ash and 27,000 gallons of contaminated water leaked from a storage pond at Duke Energy's shuttered Eden power plant in North Carolina, turning the Dan River into a swirling cauldron of toxic sludge.

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#### Discussion

In a 2011 Harvard study, *Full cost accounting for the life cycle of coal*, in the journal *Annals of the New York Academy of Sciences* the authors calculate that in the year 2005 24,475 excess deaths were caused from coal burning, and as many as 34,000 premature deaths may have resulted in 2010. Coal produces approximately half of the electricity in the United States, and yet:

In the United States in 2005, coal produced 50% of the nation's electricity but 81% of the CO2 emissions. . . . None of these figures includes the additional life cycle greenhouse gas (GHG) emissions from coal, including methane from coal mines, emissions from coal transport, other GHG emissions (e.g., particulates or black carbon), and carbon and nitrous oxide (N2O) emissions from land transformation in the case of MTR [mountain top removal] coal mining. Coal mining and combustion releases many more chemicals than those responsible for climate forcing. Coal also contains mercury, lead, cadmium, arsenic, manganese, beryllium, chromium, and other toxic, and carcinogenic substances. Coal crushing, processing, and washing releases tons of particulate matter and chemicals on an annual basis and contaminates water, harming community public health and ecological systems. Coal combustion also results in emissions of NOx, sulfur dioxide

(SO2), the particulates PM10 and PM2.5, and mercury; all of which negatively affect air quality and public health.

According to the Union of Concerned Scientists' Website, "Burning coal is a leading cause of smog, acid rain, global warming, and air toxics." The famous Harvard "Six Cities Study" determined breathing urban pollution increases your chances of death by 26%. Additionally, Coal's external costs are over twice the coal industry's total value to the economy. Coal burning retards mental development in children, and increases sudden infant death syndrome.

Burning coal produces coal ash in two forms: light coal ash that is released along with other effluvia and heavier bottom ash that collects at the bottom of the boiler. That ash must be disposed. Coalashfacts.org, an American Coal Ash Association Website, states, "In 2007, the United States produced 131 million tons of coal combustion products. While 43 percent were used beneficially, nearly 75 million tons were disposed of." How was 75 million tons of coal ash disposed?

On December 22, 2008, the earthen wall retaining a Tennessee Valley Authority (TVA) coal ash retention pond burst at the Kingston Fossil Plant. More than a billion gallons of coal ash were spilled over 300 acres of land, contaminating it with arsenic, mercury, and lead. Fifteen homes were destroyed, and damage occurred to dozens of other properties, impacting groundwater supplies, air quality, property values, and the local economy. Before Deepwater Horizon, the TVA coal ash spill could be considered the largest man-made environmental disaster in United States history.

Coal ash is the toxic byproduct of burning coal. Quixotically, the U.S. EPA has been slow to determine whether or not coal ash is a hazardous substance, and regulation of coal ash and its disposal is the purview of the states. From state to state, regulation is uneven. Some

electrical plants dispose of coal ash using a "dry" method, pumping it into silos and then transferring it to landfills, landfills that hopefully employ a double-liner system to prevent toxic substances from leaching into the environment. However, coal ash deposition into double-lined landfills is not guaranteed. Liner systems also fail, leaching toxins into the soil and groundwater. According to a University of Florida report, *A Comprehensive Literature Review of Liner Failures and Longevity*:

"Creep" is the deformation of a material over a prolonged period of time and under constant pressure. This phenomenon is mainly a function of the temperature, load, and time; and is of primary importance since geosynthetics are very sensitive to creep. Under sustained constant loading, the material will elongate and break. . . . Stress cracking is the brittle fracture of a geosynthetic material under significantly lower stress than the material yield strength. The factors influencing this phenomenon are: UV (Ultraviolet) radiation, temperature, temperature gradient, chemical agent, and stress (particularly fatigue). Stress Cracking leads to small cracks and even holes in the geomembrane, that allow leakage through the membrane. ... Damage caused by puncture will plastically deform the material up to failure and cause leaks. Static puncture is due to contact of stones on the geosynthetic under high static load (weight of the waste), while dynamic puncture is due to the fall of objects mainly occurring during installation. . . . Seams are the weakest points of a liner. Many problems encountered in landfill originate at seam locations. Seams are regions of high stress concentration due to defects in seaming operations and residual stresses. Also, stress cracking and brittle fractures can deteriorate and even break seams.... Shear properties of liners are very important for the stability of the landfill, particularly earthquakes. The materials comprising the liners, their

roughness, their stiffness, the normal load; and the temperature are factors influencing interface shear strength. Aging of geomembranes is also an important problem, since environmental conditions such as temperature, UV, oxidation, and chemical agent tend to deteriorate the liners.

More public utilities, like the TVA's Kingston facility, use the less expensive "wet" method. The wet method involves mixing the ash with water and flushing it into a collection pond. Ash is then dredged and transferred to an impoundment, which usually lacks a double-lined system to prevent toxins from leaching into the groundwater or nearby streams.

In the case of the Kingston, KY, coal ash spill an inner dyke burst from instability and internal pressure. The spate of coal ash overwhelmed an outer retention dyke, and the spill splayed out onto 300 acres of land and into the Emory River, spreading up to a half-mile from the retention ponds, plugging the river, and risking a 100-year flood upstream. A layer of unstable ash sludge (referred to as "slimes"), undetected for years by the TVA's stability analyses on the pond, precipitated the failure of the coal ash pond. The sludge layer consisted of coal ash, water, and sediments. As mentioned above, "creep" of the slimes and liquefaction of the ash triggered the spill. The Tennessee Valley Authority Inspector General's report states that the causes of the Kingston Fossil Plant coal ash spill are a systemic culture of negligence, a total lack of management transparency (leading to a possible attempt at a cover-up), and a criminal disregard of the safety, health, and property of the citizens of Roane County in favor of a litigation strategy.

#### This could happen in Illinois.

In 2010, A Duke University study conducted over an 18-month period following the Kingston coal ash spill found high concentrations of arsenic trapped in river sediment long after

arsenic levels in surface waters returned to safe levels. Samples contained arsenic levels of 2,000 parts per billion, far beyond the EPA's threshold of 10 parts per billion for drinking water and 150 parts per billion for aquatic life. Residents lost temporary or permanent use of property, land, structures, or waterfront because the coal ash spill. Years later, property values have not returned to their pre-spill levels. The majority of people do not feel safe swimming or drinking the water. Most feel the soil and groundwater do not have safe toxicity levels. Children playing along the shoreline and shallow water will be exposed to the full toxicity of the coal ash. Heavy metals in the sludge layer will leach out and into drinking, washing, and bathing water. A 2011 study released by Earth Justice and the Sierra Club, *EPA's blind spot: Hexavalent chromium in coal ash*, reported elevated levels of the highly potent, cancer-causing chemical, hexavalent chromium, at the Kingston Fossil Plant. The TVA's Kingston Fossil Plant's unlined coal waste pond had hexavalent chromium 5,000 times above the federal drinking water standards. According to the report, a connection between coal ash and chromium leaching into drinking water is well established. (Hexavalent chromium was the subject of the movie "Erin Brockovich".)

Victims of the spill are thrice affected. Property and health were negatively impacted, and the costs of the spill, the cleanup, and the fines levied against the TVA were merely passed on to the consumers in the form of higher electricity bills. Taxpayers became triple losers, suffering the effects of the spill, funding the cleanup with higher power rates, and paying taxes to governments for agencies that failed to protect the citizenry.

Again, without stringent regulations, the disasters mention above and the degradation to persons and communities could occur in Illinois.

Additional comments

According to aforementioned 2010 Harvard University study, *Full cost accounting for the life cycle of coal*, published in the *Annals of the New York Academy of Sciences*, the yearly and cumulative costs stemming from coal pollutants associated with the mining, processing, transport, and combustion of coal add as much as 27 cents to the cost of a kilowatt-hour of energy produced by coal, costing the United States over half-a-trillion dollars a year, far in excess of the amount that coal contributes to the economy. So a ton of coal that costs 2.6 cents per kilowatt-hour actually costs almost 30 cents per kilowatt-hour to society. A 2011 study, *Environmental accounting for pollution in the United States economy*, in the *American Economic Review* states that the external costs of burning coal are 2.2 times more costly to the U.S. economy than any economic benefits derived from coal. And these are just two examples of an overwhelming amount of evidence that burning coal is much more expensive to the United States than any other form of energy. And as mentioned, the former study reports that in 2005 25,000 premature deaths were caused by coal. In 2010 it was 34,000. Averaging 25,000 coal-related deaths per year means that more people died from coal in the last 25 years than from combat deaths in all of America's wars.

Coal is a 19th century source of energy and may have been appropriate when the population of the United States was 40 million; but now with a population of 312 million, using coal for 40% of our energy is economically unfeasible merely in terms of its affect on health and environmental degradation, let alone climate change. (Ninety-seven percent of all scientists agree that the current acceleration of global warming is anthropogenic. Coal is the main culprit. Scientists that disagree are paid by the fossil fuel industry or tend to be from states that are experience fracking booms.) The only reason that coal is still in use is because it's cheap for energy companies and it's profitable for coal producers. It's also profitable for politicians

because the corporations who run the energy companies and the rich guys who produce the coal bribe our politicians through campaign contributions and money to political action committees (PACs). Politicians in turn, subsidize coal with taxpayer money. So taxpayers pay for coal twice. Coal wouldn't be economically viable to the energy companies or the coal producers without subsidies provided by politicians. And even with subsidies, coal's external costs in the form of health care costs and lost work and school is appalling. The Mountain Association for Community Economic Development posted a study on their Website, *The Impact of Coal on the Kentucky State Budget*, in which it states that Kentucky in 2006 lost \$115 million giving tax breaks and subsidies to the coal industry. These subsidies go unabated and are the only reason coal remains profitable for the few.

Coal advocates complain about job loss. However, there are about 175,000 full-time, permanent coal jobs. These jobs are decreasing at a rate of more than two percent per year, not because of emissions restrictions, but because of mountaintop removal (MTR) and advances in mining technology. The other jobs that are tangential to coal, and those peripheral jobs are not coal-dependent. A truck can haul other loads. Switching a coal-fired plant to natural gas doesn't eliminate the need for electricians. Heavy equipment operators will still be in demand. Those 175,000 jobs are low-tech, 19th century jobs. Were it not for fossil fuel lobbyists, those jobs would disappear. Over the next decades wind and solar jobs will replace them. That people lose their jobs to technology is tough, but it's a fact of growth. In the mid-1990's the computer industry underwent a transformation from mainframe to client-server technology. People either learned the new technology or found other jobs. There were no unions or PACs or red-state politicians moaning the loss of those jobs because those people had no mass representation or

corporations or rich guys looking to profit from the false concern about those jobs. Coal miners will have to go back to junior colleges to get new, technical skills.

Coal needs to be taxed like cigarettes, at a rate that will discourage the use of coal. And we shouldn't tax coal emissions but coal extraction. You dig up a ton of coal; you pay a tax – an onerous tax. That will prevent coal exports to other coal-burning countries.

We need regulations to stem the poisonous consequences of coal burning. You'll hear testimony from slick lawyers and charlatan scientists from the fossil fuel industry and groups like the Heartland Institute and the Cato Institute who are going to try and dissuade you from doing the right thing. Don't let their lies distract you because that is what they are peddling—lies. Their concerns are only with lining their pockets with taxpayer money. Instead do the right thing by those 25,000 people who die prematurely every year. Stop the mining and burning of coal. But at a minimum, regulate coal ash storage and stop coal ash poisons from seeping into the environment that provides our drinking water.

#### Jim Arneberg

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