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Bellevue, WA 98004

Re- Scoping requests for the Gateway Pacific Terminal

Dear Sir and Madam:

I have two scoping requests.

1. The risk to children's health from the blowing and spillage of coal dust along its train route through Washington. Study especially, the toxic effects of mercury which can include "delayed developmental milestones, reduced neurological test scores, and at high doses, cerebral palsy".
2. The risk to children's health in China and the USA, caused by the rapid increase in coal burning plants in China. Study especially the toxic effects of mercury which can include "delayed developmental milestones, reduced neurological test scores, and at high doses, cerebral palsy".

Mitigation suggestions are included.

I am against licensing the Gateway Pacific Terminal.

Catherine A. Williams (206) 914-7354
Sandra L Boger George Wilson
Rose Sudh, John
Ralph B. Mansfield
Edith Kraemer
Margaret Williams
Allan Pantel
Robert B. Cochran
William P Jeske
Hazel Ewald

This information is taken from the web site of-

Utility FPE Group Inc.
Energy Risk Engineering
9 Cool Breeze Way
Fredericksburg, VA. 22406-5038
Phone 1 (540) 729-0095

Bituminous coal is no exception to the rule....fires and explosions can be just as deadly with bituminous as with PRB (a sub-bituminous).

Give us the opportunity to perform an in-depth on-site assessment that will identify where fire and explosions are likely in your operations.

Every fire and every explosion that has ever occurred and those that will occur in the future are preventable.

All biofuels liberate combustible dust, such as cellulose, paper dust, wood dust, saw dust and peat. These bring the same explosive energy as coal dust.

What many fail to realize is that Mother Nature has built certain characteristics into fossil fuels that we can not change. The good news is that coal burns well...the bad news is that until it reaches the furnace, it will behave as nature intended... and herein lies the root cause of many issues that we fail to compensate for. Instead we expect coal to just lay there in an inert state, causing no problems. In fact, chemistry is fast at work the minute coal leaves the ground...chemistry that can result in fires and explosions.

Prevention is easy...much easier than dealing with the aftermath of fires and explosions. But it takes the unique knowledge of what's happening to the coal and how it impacts transport, from delivery to the furnace, to lay out an effective, practical prevention plan. By prevention we include the elements of dust control, spillage control, early warning detection and fire protection. Each of these has a number of subset elements that must be evaluated and a plan implemented. If every plant followed one of these plans to the letter, there would be no fires and no explosions, guaranteed.

Pamela Hardwicke is the China specialist for Clean Air Task Force. Her phone number is 1(618) 203-5683.

CLEAN AIR TASK FORCE

Clean Air Task Force is a nonprofit organization dedicated to reducing atmospheric pollution through research, advocacy, and private sector collaboration.

About Us

- Board of DirectorsAdvisory BoardStaff and ConsultantsWhat others are saying about CATF

About Us

> CATF is a nonprofit organization dedicated to reducing atmospheric pollution through research, advocacy, and private sector collaboration.

CATF staff consists of senior engineers, MBAs, scientists, attorneys, and communications specialists. Headquartered in Boston, we operate additional offices in Washington, DC, Ohio, Illinois, Maine, and New Hampshire, as well as in Beijing, China. CATF has been called "a well-respected public health and environment advocacy group" by *Science Insider*, a publication of the American Association for the Advancement of Science.

Origins

CATF was launched in 1996 with a single goal: to enact federal policy to reduce the pollutants from America's coal-fired power plants that cause respiratory death and disease, smog, acid rain, and haze. When CATF began its efforts, polls showed that a majority of Americans believed most of their power came from hydroelectric dams and very little from coal. The gap between reality and perception was alarming: in fact, coal power in 1996 and still today provides roughly 50% of U.S. electricity, while hydropower provides only 7%.

CATF organized a coalition of more than two dozen state, local, and national environmental and public health organizations in a public education campaign to make the public aware of the vast health and environmental damage caused by those plants. These organizations pushed for model policies at the state level, while CATF commissioned dozens of new studies on coal's impact—in many cases, studies by the same independent academic experts who advised the US Environmental Protection Agency (EPA) and industry itself. In 2005, US EPA adopted rules requiring 60% cuts in health and environmental pollutants from these plants. While some of these rules were later overturned in court on technical grounds, coal plants subsequently were forced to reduce their emissions by roughly 50%, saving nearly 13,000 lives per year and avoiding hundreds of thousands of illnesses. More cuts are scheduled as the remaining EPA rules are re-issued in coming months.

CATF also developed the environmental and health community's science and technical case for reducing mercury emissions from power plants, and sued for stronger regulation on that front. We prevailed in court and, as a result, rigorous mercury standards will soon be issued by US EPA.

Our next move was to closely examine the nation's diesel engine fleet—trucks, buses, and construction equipment that spew nearly as many lethal pollutants as the nation's power plants. In 2002 we began the Diesel Clean-Up Campaign with targeted public education events in more than a dozen states as well as a vigorous campaign for change at the federal level. Many state and federal initiatives have gone forward, with mandates and funding that will reduce diesel emissions substantially in the coming years.

As an extension of our early work on diesel emissions, CATF also helped lead the global fight to reduce emissions from marine ships, which result in 60,000 deaths per year globally. As the lead technical and scientific NGO appearing before the International Maritime Organization (IMO), CATF helped push stronger emission standards that will reduce up to 31,000 deaths per year in North America and Canada alone.

A New Focus on Climate Change

CATF has continued to apply its technical and policy knowhow to aspects of the climate challenge in cutting-edge ways.

Forty Percent of global carbon dioxide emissions related to energy, the main driver of global warming, come from the world's electricity sector, mostly from coal-fired power plants. CATF's expertise in energy technology and economics uniquely positioned our organization to consider how to bend the global warming curve downward as quickly as possible.

About 10 years ago, CATF began to recognize that energy efficiency and renewables would not, on their own, be enough to slow global warming at the rate needed. Against the stark reality of continued coal use in the US and EU, and growing coal use in China, India, and throughout the developing world, we saw that ways had also to be found to take the carbon out of coal. Today, much of CATF's effort is devoted to commercializing and mandating technologies that use coal without emitting carbon. We recognized early that China, with its capacity for bringing advanced technology demonstrations to the table quickly, could be an important partner in this quest. As a result, CATF has facilitated more than a half dozen joint ventures between US and China technology companies to get low or zero carbon coal deployed quickly.

As scientific evidence of global warming mounted, CATF saw that the existing pace of warming, especially in vulnerable regions such as the Arctic, demanded a close look at all measures that could slow down the rapid global change already underway—including short-lived warming agents such as black carbon, ozone, and methane pollutants. We brought together leading scientists and technology experts to focus on what can be done to reduce these pollutants and how. Today, more than a dozen national and international bodies are considering policies to implement some of the measures we've been examining.

Finally, CATF has concluded that the climate challenge is so steep—equivalent to rebuilding earth's energy infrastructure three times over in the next half century, all *without* carbon emitting sources—that any solution will invariably have to include better and cheaper low carbon technology. We sought out some of the world's leading experts on this topic and, with our colleagues at Arizona State University, have issued a blueprint for reforming the US innovation system to achieve this result.

The Future

As scientific research has confirmed that the pace of man-made climate change is accelerating, CATF is realigning its priorities to cope with the crisis on a global scale. Our office in Beijing is helping speed the global transition to a low-carbon technology, by facilitating the development of joint business ventures between innovative energy companies and research institutions in Asia and the West. We are also working on deploying a similar business-led strategy for India.

Mitigating short-lived climate forcers such as black carbon and methane also requires a global approach, and we are playing a strong leadership role with federal and international policymakers to ensure that these threats to our global environment receive necessary attention. CATF has catalyzed important independent scientific research in this area, starting with the first-ever convening, in early 2007, of Arctic scientists and experts on shortlived climate forcers.

Finally, we are taking a fundamental, serious look at what will be required of our society and institutions to reach the necessary intensity and funding levels for energy innovation, allowing us to attain the daunting but necessary goal of a zero-carbon global energy system by mid-century.

Despite our growing stature as a research and advocacy leader in the global climate debate, we remain true to our beginnings as a science-based organization that can move nimbly and definitively on the critical climate challenges of our time.

Sources of Support

CATF is a tax-exempt nonprofit organization financially supported exclusively by donations from philanthropies and individuals, and by contracts with other tax exempt nongovernmental organizations. CATF accepts no financial support from for-profit corporations or governmental agencies. For more information on donating to CATF, please contact Julie Lanza, CATF's Development Coordinator by email at jlanza@catf.us or by phone at 617-624-0234 ext. 117.

Sub-Grants Notice

CATF provides sub-grants to a substantial number of research universities. With rare exception made on a case-by-case basis, CATF policy, as enacted January 21, 2008, does not allow indirect costs or fringe benefits (other than FICA at 7.65%).

Clean Air Task Force 18 Tremont Street, Suite 530, Boston, MA 02108 | Phone: 617-624-0234 | Fax: 617-624-0230

All references to Taiwan on this website refer to Taiwan, China, consistent with the Joint Communiqué on the Establishment of Diplomatic Relations between the United States of America and the People's Republic of China, 1 January 1979.

CLEAN AIR TASK FORCE

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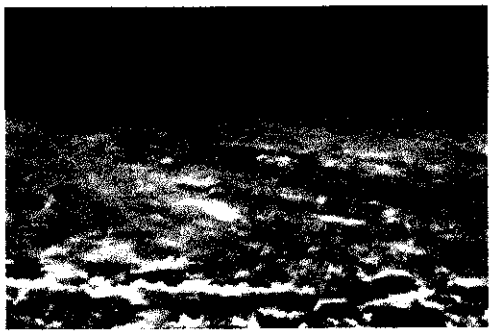
Fossil Transition

- Problems of Coal
  - CO_2 Pollution from Coal
  - Non-CO_2 Pollution from Coal
  - Combustion Waste
- Problems of Gas
- CO_2 Technology Solutions
- Policy Solutions for CCS
- Where It's Happening
- News Releases
- Resources

CO_2 Pollution from Coal



Courtesy of Getty Images

Human activity—especially the burning of fossil fuels for energy—is the primary cause of global warming. In the past 300 years, industrial, economic, and social activity has released more than 1.5 trillion tons of CO_2 and other greenhouse gases into the atmosphere. Earth's 20 hottest years since 1880 have all been in the last 27 years. Scientists say that the Earth could warm by an additional 7.2°F during the 21st century if we fail to reduce fossil fuel emissions.

Because nature's processes for removing CO_2 are relatively slow, a large portion of the CO_2 already emitted will remain in the atmosphere for hundreds of years to come, setting our planet on a warming cycle from which ecological impacts are inevitable. Increases in the Earth's surface temperature from pre-industrial times have already occurred, and will continue unabated based on CO_2 emissions already released into the atmosphere. As emissions escalate, so too does the potential environmental devastation, while our chances of mitigating them rapidly slip away. It is now well established in climate science that CO_2 emissions globally must stop, by the middle of this century, to avoid the worst cataclysms of global warming.

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Non-CO_2 Pollution from Coal

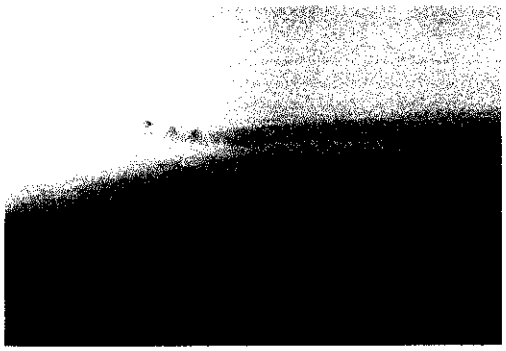

Photo courtesy of State of Queensland, Department of Environment and Resource Management.

The threat to climate stabilization comes not merely from CO_2 emissions. An array of pollutants that result from power plant operation—primarily sulfur dioxide (SO_2), nitrogen oxides (NOX), mercury (Hg), and other air toxics—operate synergistically to damage the environment and undermine public health.

Sulfur dioxide is among the most problematic air pollutants. In many parts of the East and Midwest, sulfates make up well over half the harmful fine particles in the air. These emissions are linked directly to acid rain, the haze that obscures scenic vistas in national parks and our urban areas and—along with NOX emissions (see below)—are the components of fine particles, which can cause a variety of respiratory-related health problems. Power plants spew forth about two-thirds of the SO_2 emitted in the U.S. each year. Thanks to the 1990 Clean Air Act, national SO_2 emissions have been reduced by approximately 50% over 1980 levels and recent state and federal actions have reduced them further in the eastern U.S. But power plant-related particulate matter pollution, mostly from SO_2, will still result in more than 15,000 premature deaths in 2010. In addition, more than 150 years of sulfur deposition has

taken a serious toll on our lakes and streams and the aquatic life that live in them: in some cases, the future existence of entire food webs is threatened.

The problems associated with **nitrogen oxides** include health and ecosystem damage due to ozone smog, which causes respiratory damage and nitrogen deposition. According to a recent study, ground level ozone sends an estimated 159,000 people in the eastern U.S. to emergency rooms each summer, triggers 6.2 million asthma attacks, and results in 69,000 hospital admissions. Power plants are responsible for about one-quarter of the NOX emitted in the U.S. each year.

The electric power industry emits more than 65 air toxics, and coal-fired utilities are the single largest industrial emitter of **mercury** air pollution, responsible for more than one-third of U.S. Hg emissions. Mercury, a potent neurotoxin, can be passed in utero through maternal blood levels to the developing fetus. The toxic effects on children can include delayed developmental milestones, reduced neurological test scores, and, at high doses, cerebral palsy. Mercury is passed to certain populations through the consumption of contaminated fish, impacting people who are often economically marginalized or attempting to maintain specific cultural customs. According to EPA, all 50 states have mercury advisories urging avoidance of consumption of certain species of fish. In 35 of these states warnings apply to all waters statewide.

CATF is working to put maximum economic pressure on new and existing coal plants to either meet stringent performance standards for all pollutants—or to shutdown. This includes advocacy for a stringent Maximum Available Control Technology (MACT) rule for all power plants toxics. CATF spearheaded the deadline litigation that resulted in EPA signing a consent decree to propose a HAPs MACT rule for coal plants in 2010. We are also trying to win a stringent CAIR replacement rule for NOX and SO_2 regulation related to power plants in the eastern United States. The Obama Administration EPA is now rewriting CAIR, after a federal court struck down the Bush Administration's weak version two years ago.

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Carbon Capture and Storage and the Need for Zero Carbon Fossil Fuels

Carbon Capture and Storage (CCS) is one of the most important technologies for averting the worst aspects of climate change. That's because fossil fuel use is growing worldwide, not declining:

- In the last few years alone, China has built more new coal plants than exist across the United States. By 2015, China will have more than three times more coal plants than the United States.
- In a 2012 International Energy Agency (IEA) report, the IEA predicts that fossil fuels will account for 59% of the overall increase in worldwide energy demand between 2009 and 2035.
- Natural gas use in the United States will increase as a result of recent development of "unconventional gas" deposits.

At the same time, the urgency of addressing climate change is growing. According to NASA, the average global surface temperature in 2011 was the ninth warmest since 1880. The finding continues a trend in which nine of the 10 warmest years in the modern meteorological record have occurred since the year 2000. As a consequence of warming, the Earth's climate is changing. Measurements in the last few years show record loss of Arctic sea ice. Within the next 10-20 years, the Arctic Ocean could be ice-free in the summer. Ice sheets and glaciers are melting, and the global sea level has risen. Recent projections show a long-term average global tempreture increase of 3.6C.

These facts underscore the need for CCS. It's effective because it can capture up to 90% of the CO_2 from these major coal and gas sources. The technology is scalable, and its individual components have been available for decades.

But for CCS technology to become widely used, regulations that limit carbon dioxide must be adopted for plants that use coal and gas. And for all its benefits, CCS and other low-carbon technologies like nuclear and wind, cost

News--Canada approv deal

12/07/12

Canada- On Friday Ca Chinese state-run oil gi forward with a $15 billio Canadian domestic ene The deal is the latest ef government to find new natural gas reserves.

News--Approval of ref accelerates CO2 pipel

11/30/12

Alberta- The approval Redwater Partnership's proved a major milestor Energy's Alberta Carbo The 240 km pipeline is use carbon dioxide cap processes for enhance peipeline is set to be co will capture CO2 from t Redwater facility as wel fertilizer plant.

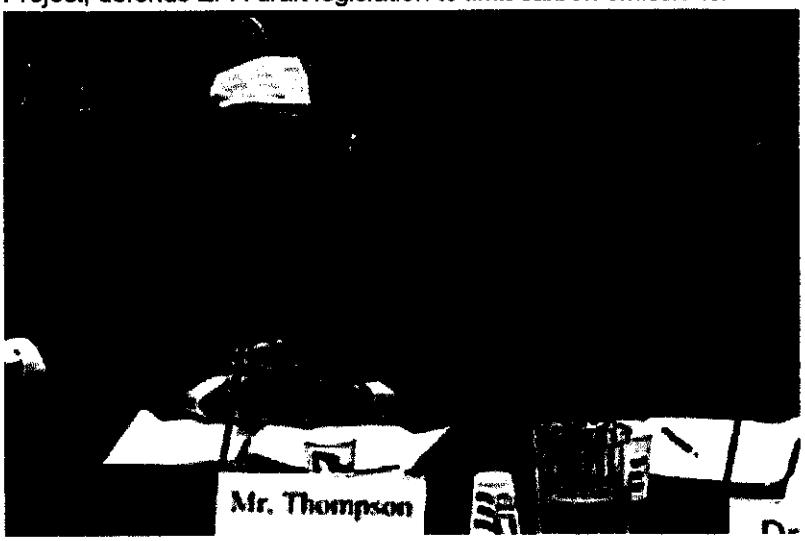
more than near term electricity production prices. This web site describes technological status and costs of each of its components, the policies needed to advance CCS, and the global strategy needed to lower CCS costs.

The Clean Air Task Force is an independent environmental organization not funded by industry or government. Our Fossil Transition Project provides objective analysis of fossil policy and technology, and advances environmentally responsible fossil fuel policy, focusing on the advancement of carbon capture, utlilization and storage.

Geologic carbon stora enhanced oil recovery

11/22/12

"Geologic Carbon Stora Oil Recovery", publishe Energy Procedia, GHG Bruce Hill, Clean Air Ta Scientist-Geologist, wrc Sue Hovorka and Steve

John Thompson testimony before House Subcommittee on Energy and Power

John Thompson, Director of Clean Air Task Force's Fossil Transition Project, defends EPA draft legislation to limit carbon emissions.