

ENVIRONMENTAL ENGINEERING NEWSLETTER

4 NOV. 2013

Please be aware any Newsletter URL ending in **020701.pdf** and **020610.pdf** are available for downloading only during the six days following the date of the edition. If you need older URLs contact George at ghh@att.net.

Please Note: This newsletter contains articles that offer differing points of view regarding climate change, energy and other environmental issues. Any opinions expressed in this publication are the responses of the readers alone and do not represent the positions of the Environmental Engineering Division or the ASME.

George Holliday

This week's edition includes:

1) ENVIRONMENT – A. EED MEETING ANNOUNCEMENT

The Environmental Engineering Division (EED) is planning a meeting for all members who are able to attend, on the West Coast.

The West Coast meeting will be held during IMECE 2013 in San Diego, CA, November 15-21.

The specific date is 19 Nov. 7 – 9 PM, Manchester Grand Hyatt San Diego

One Market Place Telephone: 619-232-1234.

At the meeting, we will discuss the recent EED member survey, the revised Division By-Laws, and interest in forming and participating in new technical committees identified as being of interest in the survey. EED members who wish to attend the Division meeting will not be required to register for the conference, although there are certainly benefits to attending the conferences if you are able.

The call-in information for the WEST Coast meeting in conjunction with CMTC is:

Phone: 1-866-359-4571

Code: 811 047 1915

For more information on the EED meeting contact:

- West Coast: Andy Miller, EED Chair, 213-244-1809, Miller.Andy@epa.gov

B. ASME IS DEVELOPING AN ASME ENERGY FORUM



san diego convention center
San Diego, Ca, USA
March 17-19 2014



Executive Advisory Committee:

The Executive Advisory Committee for ASME Energy Forum Live – Oil & Gas includes senior members from Shell Exploration & Production, Draper Laboratory/Cambridge Research and Technology LLC, Baker Hughes, Stewart & Stevenson, BP Exploration, and ASME.

Doreen Chin, Co-Chair

Shell Exploration & Production Co.

Martin Rylance, Co-Chair

BP

Julio Guerrero

Draper Laboratory, Cambridge Research and Technology L.L.C.

Satya Gupta

Baker Hughes Pressure Pumping

Rustom Mody

Baker Hughes, Inc.

Jared Oehring

Stewart & Stevenson

Raj Manchanda

ASME

Program Committee:

Phil Grossweiler, Program Committee Chair M&H

Blake Burnette, Poster Committee Chair

Baker Hughes Pressure Pumping

David Paradis Weir Oil and Gas Pressure Pumping

Arnold Feldman

C. ENERGY COMMITTEE – ETP 8 RELEASE

The Energy Committee has released its latest Energy Talking Point (ETP 8) titled "On the Possible Collapse in our Quality of Life". The ETP addresses the following issue: All aspects of modern life in a civilized society and functioning economy now have a fundamental dependence upon availability of affordable energy. Most energy used today is derived from finite (exhaustible) resources. Developing and transitioning to other energy resources takes time, and, there can be a substantial penalty for procrastination. Exhaustion of low-cost energy resources can result in a decline or collapse in our quality of life (QOL).

A copy of the ETP (along with all other ETP's) can be found at

https://community.asme.org/energy_talking_points/w/wiki/7020.energy-talking-points-released.aspx

Arnold Feldman/Rick Meeker

2) HEALTH – DENGUE/DHF UPDATE (85): AMERICAS

In this update:

[1] USA

[2] Cases in various countries

<http://www.eandp-environment.net/Health/Health020701.pdf>

3) SAFETY – A. USA - 1 INJURED IN TANK FARM EXPLOSION

The below incident occurred on 10/8/13 and text is directly from the news article so I'm not sure how accurate it is. The link to the newspaper website allows you to see additional aerial photos.



Thanks to Joris Plasmans (Total) for passing on this news story...

A man was severely burned after a tank farm explosion early Tuesday morning in Karnes County, Texas. According to the Karnes County Sheriff's Department, the blast occurred just outside of Gillett around 4:45 a.m. Karnes County Sheriff Dwayne Villanueva said the explosion started in a tank filled with salt water and oil from the fracking process. The fire spread to 10 other tanks triggering more explosions. Another explosion happened after sheriff's deputies arrived at the scene so they backed off, Villanueva said. As of 9:30 a.m., the fire was extinguished. Karnes County officials said the smoke posed no danger to the community. A cause remained unknown Tuesday morning. Villanueva said the tanks are owned by Gulf Coast Acquisitions. Highway 80 from Gillett was closed while fire crews responded to the blast, but reopened around 9 a.m. Sheriff's deputies say the injured man is 38-years-old and suffered second- or third-degree burns to his face and the left side of his body. He was flown to San Antonio Military Medical Center for treatment.

<http://www.ksat.com/news/1-injured-in-oil-well-explosion-in-karnes-county/-/478452/22328068/-/3g6fme/-/index.html>

4. TRANSPORTATION – A. U.S. STEPS UP RESEARCH ON PIPELINE SAFETY

Grants of \$7.8 Million This Year Come as Recent Spills Expose Deficiencies in Inspections By DANIEL GILBERT

Oct. 16, 2013 3:39 p.m. ET

A pipeline leak spilled crude oil on a North Dakota wheat farm last week. *Associated Press* Recent oil-pipeline spills have exposed weaknesses in the industry's best inspection tools, and the federal agency responsible for monitoring safety is stepping up research spending in an attempt to spot problems in pipes before they rupture.

The Pipeline and Hazardous Materials Safety Administration has doled out research-and-development grants for \$7.8 million this year, higher than in any year since 2008, according to federal data. Almost 40% of the funds are earmarked for projects to improve companies' ability to find flaws in their pipelines.

The pipeline industry relies heavily on sending robots, called "smart pigs," through pipes to collect information on potential risks. But the tools have [missed dangerous cracks](#) in pipe seams, resulting in several major spills this year.

Two new research projects are focused on pipelines too narrow to be inspected by smart pigs and seek to develop electromagnetic sensors to detect cracks. Last week, a 20-year-old [Tesoro Logistics](#) LP six-inch-diameter pipeline leaked [20,600 barrels of crude oil](#) in North Dakota, the nation's biggest oil spill from a pipeline since 2010. Officials at PHMSA have been furloughed because of the government shutdown, although an agency inspector has been investigating what caused that incident.

In April, a pipeline operated by [Exxon Mobil](#) Corp. split along a seam and spewed 5,000 barrels of crude into an Arkansas neighborhood. The pipe had been formed by fusing metal sheets together with a low-frequency electric current, a process called electric-resistance welding, which has long been known to leave defects in the seam. Exxon's tests hadn't revealed an imminent risk.

"There's general agreement that some of the cracks around welds on ERW pipe keep a lot of people awake at night," said Carl Weimer, executive director of the Pipeline Safety Trust, a nonprofit safety advocate. "Smart pigs, although they got smarter, are really still missing some things."

Questions about the effectiveness of smart pigs come amid a surge in U.S. oil and gas production, sending more fuel through the thousands of miles of pipe that crisscross the nation. Inspections in a pipeline don't always register small cracks that later widen and split, according to studies by U.S. pipeline-services firm Kiefner & Associates Inc. and Det Norske Veritas AS, a Norwegian risk-management firm. The research, which began in 2011, came from a \$4.2 million PHMSA grant, the largest the agency has awarded in at least a decade.

The agency last month gave an \$800,000 grant to the Pipeline Research Council International, an industry group, to evaluate current methods of inspecting pipelines from the inside and improving on them.

The group, which will contribute about \$1 million of its own to the effort, plans initially to focus on pipes manufactured before 1970 that are formed with the same kind of weld as the Exxon pipeline that failed in Arkansas. A [Chevron](#) Corp. pipeline in Utah, made with the same process, ruptured along an old seam in March and spilled about 600 barrels. The pipeline is now operated by Tesoro Logistics.

"There's something going on right now we don't understand as an industry," said PRCI President Cliff Johnson.

Efforts to reach the PHMSA were unsuccessful. But agency engineer Steven Nanney at an August forum said that the industry's state-of-the-art tools can't ensure that all defects will be found, particularly for cracks in seams.

Developing more-accurate measurements of where metal is thinning on a pipe also is getting federal funding.

Companies, too, have conducted research to improve their ability to find pipeline problems. Pipeline operator Kinder Morgan Inc. patented technology to better visualize cracks in seams. The company's research stemmed from the 2006 rupture of a pipeline in Virginia along an old, faulty seam. The company had inspected the segment just months before it failed.

The company said it had invested \$10 million since 2011 to advance its ability to find cracks inside pipes.

B. OBAMA WILL REJECT KEYSTONE XL PROJECT, FORMER WHITE HOUSE AIDE PREDICTS

President Barack Obama will reject TransCanada's Keystone XL pipeline, said Carol Browner, former White House energy and climate adviser. "At the end of the day he is going to say no but there will be some more twists and turns before we get there," she said

<http://thehill.com/blogs/e2-wire/e2-wire/330461-ex-white-house-climate-guru-predicts-obama-will-say-no-to-keystone>

COMMENTS:

A. THE WEEK THAT WAS: 2013-10-12(OCT. 12, 2013)

By Ken Haapala, Executive Vice President, Science and Environmental Policy Project (SEPP)

Chartsmanship.

Steve McIntyre has another post on how the UN Intergovernmental Panel for Climate Change manipulated graphs from its Fourth Assessment Report (AR4) to the second order draft of the Fifth Assessment Report (AR5) to the final of AR5. The second order draft, the last one sent out to reviewers, clearly showed observations were running well below the uncertainty envelope for AR4 model projections. In the final version, the IPCC removed the uncertainty envelope for AR4, yet retained these envelopes for the previous three assessment reports. McIntyre estimates that the new range of uncertainty for AR4 is about twice that of what appeared in the original. In brief, between the second order draft of AR5 and the final version, the range of uncertainty approximately doubled. Yet, the IPCC expressed 95 to 100% confidence in its work. Also, McIntyre has not found any peer reviewed literature supporting the new graphic. For the discussion to include comments from IPCC defenders see links under Climategate Continued.

No Improvement: Last week, TWTW discussed the presentation by Nir Shaviv that showed that from 1979 to 2013 there has been no significant improvements in the estimates of the critical question of how sensitive are earth's temperatures to a doubling of atmospheric carbon dioxide (CO2)? The IPCC estimated range of uncertainty actually increased from AR4 to AR5, with a lowering of the lower boundary. Yet, all the values are above the laboratory derived values of about 1.1 °C. Shaviv suggests that the reason for no improvement in the science is that basic premise of the IPCC science is wrong. According to Shaviv, contrary to the IPCC, the climate is

not very sensitive to increasing CO2 and that if one does not insist it was highly sensitivity, studies indicate the range of sensitivity is more in the order of 1 to 1.5 °C.

His comments prompted a revisit to a 2008 paper by Richard Lindzen, “Climate Science: Is it currently designed to answer questions?” Lindzen points out that the procedures used by the IPCC and the Climate Establishment [John Christy’s term] avoid the intense conflict between observations and theory, whereby theory is continuously refined to explain the observations until a solid theory is established. Instead, the procedures by the Climate Establishment focus on computer simulation of nature and various large programs purportedly to observe nature, which never end. As a result, theory is not refined, but large science programs are created to accommodate political correct positions. The entire effort is driven by government funding. For the work of Shaviv see <http://www.sciencebits.com/AR5-FirstImpressionsand> for the updated paper by Lindzen see <http://globalresearch.ca/climate-science-is-it-currently-designed-to-answer-questions/16330>.

Another Elephant? Last week, TWTW discussed two elephants in the room that the IPCC conveniently ignores in its grand pronouncements. One elephant is the failure of surface temperature to increase in a statistical significant way over the past 17 years even though atmospheric CO2 has increased by about 10%. The atmospheric temperatures have not increased for a decade. The second elephant is the composition of the warming as measured by satellites: Notable warming in the northern part of the Northern Hemisphere (roughly 30°N Latitude), with little or no warming elsewhere.

In presenting their reasoning why they think the world is headed for a cooling period, German scientists Frank Bosse and Fritz Vahrenholt suggest a third elephant. Now that the IPCC has admitted the existence of the Medieval Warm Period and the Little Ice Age, the IPCC has no theoretical basis for explaining why these warming and cooling periods occurred. It certainly was not from changing CO2.

The authors bring up the concept of “missing heat” used in efforts to explain the failure of the globe to warm. Following a suggestion of Hans von Storch, they assert the heat was not missing, because it did not exist. They point out that the difference in surface temperatures from 1998 to 2012 northern Eurasia and from those in 1980 to 1997. The authors suggest that the strong decline in temperatures is the result of declining ultraviolet (UV) radiation from the sun, which can vary by 10%. UV radiation is unlike the full spectrum of solar radiation (mostly visible light) which varies little. See link under Science: Is the Sun Rising? and the study by Ermolli et al. that is linked therein.

Clouds: The solar-cosmic ray hypothesis for the formation of clouds advanced by Svensmark, et al. took a slight hit this week. Earlier, researchers at CERN, the European Organization for Nuclear Research, conducted experiments that seemed to support the hypothesis. This week they published further research on “solving a long-standing enigma in climate science: how do aerosols -tiny solid or liquid particles suspended in the air -form in the atmosphere, and which gases are responsible?” They made two discoveries. One, that small concentrations of amine vapors, similar to ammonia, combine with sulfuric acid to greatly accelerate the formation aerosols. And, two, that radiation has little effect on the process. As the press release asserts, this step forward in understanding how clouds are formed does not rule out a role of cosmic rays. See links under Science: Is the Sun Rising?

Other Mechanisms? One of the annoying arguments found in the UN IPCC reports such as the Summary for Policymakers (SPM) in AR5 is the claim that the human influence must be significant because the models cannot explain the temperature changes without a significant human influence. Although the SPM is still in a draft form, subject to revision, the report has a page with 18 graphs showing the difference between models using only natural forcings and models using both natural and anthropogenic (human caused) forcings. The entire thrust is an example of argument from ignorance. The assumption is that the models successfully include all the natural forcings, which is very doubtful.

In addition to solar UV radiation possibly having a significant effect on changing climate, as mentioned above, several other studies were published suggesting even other mechanisms. One study, by Lam et al, suggests that the solar magnetic field influences the earth's climate by changing surface atmospheric pressure. Tim Ball has extensive commentary on this, suggesting the line of research should be taken further.

Judith Curry, co-author with Marcia Glaze-Wyatt, has a very interesting paper in Climate Dynamics discussing a possible mechanism for oscillation of climate over multiple decades. They liken it to the "stadium wave" often used at [American] football games, where the fans stand or sit in a coordinated pattern. They suggested that this wave pattern can be seen in records going at least as far back as 300 years.

Nicola Scafetta has a paper suggesting that a model based on the movement of the planets (planetary orbital oscillations) better explains climate variation than the General Circulation Models used by the UN IPCC. On her web site, Jo Nova has a good presentation of the paper and a number of useful comments. The descriptive power of the model may be just a statistical artifact, but it may promote useful discussion.

Now that it is becoming evident to many that IPCC science is failing, we may begin to see other directions of research. Of course, the government funding power to the IPCC makes it difficult to attract funding for research other than the standard claim that CO2 is the control knob for climate. Please see links under Science: Is the Sun Rising? and Challenging the Orthodoxy.

Failing Models: A group at the University of Hawaii used 39 models to forecast temperature trends in the tropics and elsewhere. They looked at temperatures of the period 1850 to 2005 as a base for climate variability and using the models projected the year when warming will exceed the historic monthly variability for many cities around the world. In general, they found that model output will exceed their calculated natural variability first in cities in the tropics, then elsewhere. They concluded that biodiversity will be highly vulnerable in the topics with the emergence of unprecedented climates

Although recognizing that all the models run too hot, Judith Curry saw merit in the approach. But that merit may be lost in the alarmist press.

As Roy Spencer and John Christy have pointed out, all 73 climate models are forecast higher temperature trends in the atmosphere above the tropics, than what is being observed. Many of the models forecast trends that are more than twice of what is observed. A further issue with the study is that the period coinciding with the ending of the Little Ice Age is hardly the proper place to start the base. See links under Communicating Better to the Public –Exaggerate, or be Vague? and <http://www.drroyspencer.com/2013/06/still-epic-fail-73-climate-models-vs-measurements-running-5-year-means/>

Sea Levels: The World Bank and the IMF have embraced the concept that human caused global warming will cause significant sea level rise. Judith Curry writes that this attitude may present a major danger to the population of Bangladesh. A recent study shows that Bangladesh's sea level rise problem is not really driven by climate change, but by land subsidence. "...the risks here are that UN/WB adaptation solutions will be inadequate to help them deal with their sea level rise problem, or that Bangladesh will find itself ineligible for international climate adaptation funds." As Curry suggests, Bangladesh may become a victim of IPCC over simplification of the climate change issue and its solutions. See link under Changing Seas.

<http://www.sepp.org/twtwfiles/2013/TWTW%2010-12-13.pdf>

B. A. THE WEEK THAT WAS: 2013-10-26(OCT. 26, 2013)

By Ken Haapala, Executive Vice President, Science and Environmental Policy Project (SEPP)

NIPCC Review: Four of the authors on the latest report of the Nongovernmental International Panel on Climate Change (NIPCC), Craig Idso, Robert Carter, Fred Singer, and Willie Soon, have written a review of the Summary for Policymakers (SPM) by the UN Intergovernmental Panel on Climate Change (IPCC). They find that the IPCC has retreated on at least 11 alarmist claims in prior reports. They also find the new SPM has at least 13 misleading or false statements, and that another 11 statements are phrased to mislead the readers or misrepresent important aspects of the science.

Among the retreats was that IPCC recognizes:

- Surface warming essentially stopped about 1998 even though there has been 7% increase in atmospheric carbon dioxide (CO₂) since then.
- Continents experienced a Medieval Warm Period and a Little Ice Age, which, of course, contradicts Mr. Mann's notorious hockey-stick.
- Antarctic sea ice expanded between 1979 and 2012, which is inconsistent with the claimed global warming.
- The models failed to forecast the observed failure of the globe to warm. The latest estimated range for a warming from a doubling of CO₂ is 1.5°C to 4.5°C (about 3 to 7°F), which is the same as the estimate made by the National Academy of Sciences 34 years ago.

The last retreat is particularly significant. According to government reports, since 1993 the US spent at least \$150 Billion on climate change activities, at least \$35 Billion on what was categorized as climate science; yet, there has been no improvement in the scientific knowledge of the influence of atmospheric CO₂ on temperatures. This failure to advance scientific knowledge supports Richard Lindzen's contention that the entire program is not designed to answer critical questions.

Among the 13 misleading or untrue statements uncovered by the NIPCC team are:

- "Probabilistic estimates of quantified measures of uncertainty in a finding are based on statistical analysis of observations or model results, or both, and expert judgment."
- "Warming of the climate system is unequivocal, and since the 1950s many of the observed changes are unprecedented."

- “The reduced trend in radiative forcing (1998-2012) is primarily due to volcanic eruptions.”The NIPCC team asserts there were no globally significant volcanic eruptions during the period.
- “The net radiative feedback due to all cloud types combined is likely positive. Uncertainty in the sign and magnitude of the cloud feedback is due primarily to continuing uncertainty in the impact of warming on low clouds.”The statement is inconsistent on its face.
- “The underlying assumption is that the models contain a perfect representation of the physics of the climate system and so can account accurately for all different forcings.”This is a false assumption because our knowledge is much less than complete.

The 11 instances of deceptive language include:

- “Each of the last three decades has been successively warmer at the Earth’s surface than any preceding decade since 1850.”
- “In the Northern Hemisphere, 1983-2012 was likely the warmest 30-year period of the last 1400 years.”
- “The ocean has absorbed about 30% of the emitted anthropogenic carbon dioxide, causing ocean acidification.”

For further NIPCC comments and rebuttal to IPCC statements see link under NIPCC Reports. For Richard Lindzen’s critique of the climate establishment see link under Challenging the Orthodoxy.

Reliable Models: Given the enormous sums the US government has spent on climate studies, in what may be considered a strange announcement, MSN News reports that the National Institute of Food and Agriculture, a division of the US Department of Agriculture(USDA),and the National Science Foundation (NSF) have announced a program to develop climate models that will substantively contribute to the advancement of reliable regional and decadal climate predictions.Could it be that NSF and USDA recognize that global climate models cannot be used for predictions or is it an expansion of the failing programs? Please see links under Model Issues.

95% Certainty: Given the failure of nature to obey human global climate models, the IPCC’s claim of 95% certainty that most of the warming since the 1950s was due to human greenhouse gas emissions is without merit. In an amusing post, Roy Spencer and John Christy plot the results from **90(ninety)** global climate models (CMIP5) and compare the results with observed average temperature from both surface and satellite measurements. They find that 95% (actually, 96.7%) of the models over estimate the temperature trends. Spencer suggests that the IPCC actually meant to say was that it is 95% sure its climate models are warming too much. Please see link under Models v. Observations.

\$3.2 Trillion: Craig Idso has estimated the social (monetary) benefits of enhanced atmospheric carbon dioxide. He estimates that between 1961 and 2011, the total monetary benefits come to \$3.2 Trillion, with over \$140 billion in 2011 alone. As atmospheric CO2 increases, these benefits increase.

Matt Ridley discusses a new book by Bjørn Lomborg, **How Much have Global Problems Cost the World?: A Scorecard from 1900 to 2050**,with emphasis on a chapter by Dutch economist

Richard Tol, who estimates that global warming benefited humanity and will continue to benefit humanity until about 2080.

These and other estimates contradict the positions of US government agencies on the Social Costs of Carbon. Please see links under Social Benefits of Carbon.

Arctic and Antarctic Sea Ice. The Arctic melting season is over and it disappointed many alarmists. Arctic sea ice failed to melt as much as it has in the past few years, disrupting the trend and falsifying the predictions that the Arctic will be free of ice by 2013. Contradicting alarmists, polar bear expert Susan Crockford, points out that the extent of the late season ice is not particularly important for polar bears. Spring ice is more important, when the bears are heavily feeding and are on the ice hunting seals.

It is unclear if the freezing season is over in the Antarctic. However, the extent of the Antarctic sea ice is the greatest since satellite measurements and according to scientists at the Alfred Wegener Institute, the volume of Antarctic ice is the greatest measured. These findings contradict claims by warming alarmists. See links under Changing Cryosphere.

Fires: Much is being made of the fire season in Australia with claims that the extensive fires are the result of global warming/climate change. David Evans points out that the fires are more due to excessive fuel loads than changes in climate. Long before Europeans came, aborigines cleared major parts of southeast Australia by burning. By stopping burning, modern-day Europeans have allowed the fuel loads to become extremely high. The Indians of North America also used burning to modify the landscape. The Australian fires are an example of environmentalism run amuck. See links under Communicating Better to the Public –Exaggerate, or be Vague?

Adaptation: A major cyclone, Phailin, hit eastern coastal states of India. The estimated wind speeds are in excess of 200 kilometers (130 miles) per hour and the storm surge to be 3.5 meters (11 feet). Yet, only 25 deaths were reported, rather than ten thousand or more, which was traditional for such storms. The big difference was massive, timely evacuation of those living along the coast, which is what the US failed to do with Katrina. The action in preparing for Phailin illustrates the importance of adaptation. See links under Changing Weather.

Additions and Corrections: The last TWTW and last week's brief update each contained a typo. Reader Paul Kenyon corrected the spelling of climate scientist Hans von Storch and Randy Randal corrected the spelling CEI attorney Sam Kazman. As always, TWTW appreciates such corrections.

Number of the Week: About \$1 Billion per day. The Climate Policy Initiative (CPI) estimates the world is spending about \$359 Billion fighting global warming in 2013 or about \$1 Billion per day. CPI states that it: "is a team of analysts and advisors that works to improve the most important energy and land use policies around the world, with a particular focus on finance." CPI refers to expenditures as investments to fight global warming/climate change.

The IPCC is called the premiere scientific organization on climate change and it does not understand the natural causes. One must wonder about the anticipated rate of return on climate investments.

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<http://www.sepp.org/twtwfiles/2013/TWTW%2010-26-13.pdf>

C. A CARBON RECKONING

The Supreme Court will hear a crucial case about EPA overreach.

Oct. 15, 2013 7:21 p.m. ET

The Obama Administration's Environmental Protection Agency has spent the last few years stretching its legal authority, and now it will have to defend its actions before the Supreme Court. On Tuesday, the Justices agreed to review how far the agency can go in regulating greenhouse gases under the Clean Air Act.

In *Utility Air Regulatory Group v. EPA*, the Court consolidated six cert petitions and will consider a single legal question: Does the EPA's authority under the Clean Air Act to regulate greenhouse gas emissions from "mobile sources" like cars also apply to emissions from "stationary sources" like power plants? To put it another way: Can the EPA make up the rules as it goes along?

This story started in 2004, when environmentalists sued to force the EPA to regulate CO₂, even though the Clean Air Act never defined it as a pollutant. The Justices nonetheless ruled 5-4 (*Massachusetts v. EPA*, 2007) that the agency could do so for mobile sources such as cars under Title II of the Act. Gentleman, start your regulatory engines.

The Obama EPA immediately began to stretch that logic to apply to power plants and other stationary sources with a series of 2009 rulemakings. Those sources are covered under a separate provision of the Clean Air Act's Title 1, which includes complex federal permitting.

When Congress wrote the Clean Air Act, it created numerical thresholds specifying that the government could only start regulating after a plant was shown to be putting out more than 100 tons a year of a pollutant. Congress had in mind traditional pollutants like sulfur dioxide or ozone, but in the case of greenhouse gases like carbon dioxide 100 tons a year can be reached by 40 lawyers breathing. (OK, maybe a few more.)

By the EPA's own estimates, applying that 100-ton threshold to greenhouse gases would require some six million buildings to get environmental permits, including such grand polluters as churches and farms. Recognizing that such a rule would create "absurd results" like shuttering the entire economy, the EPA rewrote Congress's numbers and adjusted the threshold to 75,000 tons from 100 tons. EPA's clear political purpose was to escape a large political backlash to its new rules by unilaterally limiting their reach.

The EPA says that its rewrite is no big deal, and that plaintiffs should have no standing to sue since the agency was doing everyone a favor by lifting the thresholds. But regulatory agencies don't have the power to rewrite laws on their own without the authority granted by Congress. All the more so when that rewrite is intended to limit political accountability for a rule that could cost the economy \$300 billion to \$400 billion a year.

Parties to the suit include a handful of states that have been at the forefront of fighting the Obama Administration's regulatory overreach. Texas and 11 other states have taken a stand together, while Alaska joined a brief with the U.S. Chamber of Commerce. State attorneys general have challenged the Administration's agenda on everything from [ObamaCare](#) to the plan to get rid of the Yucca Mountain waste depository. We're glad to see the Court stepping into the melee.

D. EPA FACES TEST OF EMISSIONS RULES

By Brent Kendall and Keith Johnson

Updated Oct. 16, 2013 12:19 a.m. ET

The Supreme Court on Tuesday said it would consider challenges to the Environmental Protection Agency's permitting requirements for power plants and other facilities that emit large amounts of greenhouse gases, throwing the Obama administration's regulations into a state of uncertainty.

The court's announcement breathes new life into lawsuits by industry groups and several states that alleged the EPA overreached when it introduced its first greenhouse-gas regulations in 2009 and 2010. [A Washington-based federal appeals court in June 2012 sided with the EPA on nearly every issue in the dispute.](#)

Both sides found something to like in the high court's move Tuesday. The justices said they would review just one aspect of the lower-court ruling—the part involving permitting requirements—and they left intact the EPA's basic finding that greenhouse gases pose a danger to human health.

EPA chief Gina McCarthy said the decision "confirms that EPA has the authority to protect public health by reducing carbon pollution."

Industry groups, meanwhile, welcomed the Supreme Court's intervention and said the case would offer the opportunity to overturn what they call burdensome and costly rules.

"EPA's flawed regulations would impose new requirements on potentially millions of stationary sources," said the American Chemistry Council, a group that petitioned the high court to take up the issue. It said the permitting program wasn't the appropriate way to address greenhouse-gas emissions from industrial facilities.

Solicitor General Donald Verrilli had urged the high court to reject the challenges and leave the lower court's ruling in place. Oral arguments are likely to take place early next year, with a decision expected by June 2014.

The EPA regulations came after the Supreme Court ruled in 2007 that the Clean Air Act gave the agency the authority to regulate greenhouse gases. That ruling focused on a section of the law related to vehicle emissions.

A question raised by the new case is whether the earlier ruling applies with equal force when the EPA is attempting to regulate greenhouse-gas emissions from stationary facilities, such as power plants, instead of automobiles.

Last month, the EPA proposed to limit greenhouse-gas emissions from new power plants, forcing coal-fired plants to cut their emissions by 40% below the level achieved by most present-day units. New coal-fired plants would have to employ costly technology that hasn't been used before on a commercial scale. In making that proposal, the EPA relied on a section of the Clean Air Act that is separate from the permitting program called into question in the new Supreme Court case.

E. USA TODAY SERVES FRUITS AND NUTS ON GLOBAL WARMING

Joseph L. Bast, The Heartland Institute

It's time to stop attacking the messenger and start listening to the message. It is very clear: The human impact on climate is small, future climate change attributable to human activities is likely to be too small to discern from natural variability, and efforts to reduce human carbon dioxide emissions are unnecessary.

<http://blog.heartland.org/2013/10/usa-today-serves-fruits-and-nuts-on-global-warming/>

F. THE SOCIAL BENEFIT OF CARBON: \$3.5 TRILLION IN AGRICULTURAL PRODUCTIVITY

Craig Idso, an expert on the fertilization effects of elevated CO2 levels on various plant species, has done a [new study](#) of the *positive* externality (unintended economic consequence) of increasing CO2.

In the 50 year period, 1961-2011, he estimates that there has been a \$3.5 *trillion* benefit resulting from increased agricultural productivity. The projected benefits in the coming decades are even larger.

Egad! How could any by-product of human activity possibly be *good*? That sure wasn't what I was taught in school!

In our modern age of self-flagellating hand-wringing do-gooders with too much time on their hands and anxious to find some cause to convince others to pay for assuaging their self-imposed guilt (phew), it is seldom we hear any good news about anything related to climate change.

And if just the *agricultural* benefits of increasing CO2 is in the multi-trillion dollar range, what about the prosperity enabled over the last 100 years by access to abundant, affordable energy? How many gazillions of dollars would *that* be?

Yet, the government continues to try to justify a wide range of regulations punishing the use of fossil fuels based upon the silly idea of "social cost of carbon" (SCC), the supposed overwhelming negative externalities resulting from fossil fuel use.

When are real economists with some gonads going to stand up for the social *benefits* of carbon (SBC)? People like Matt Ridley are [speaking out](#) on the subject. Where are the economists? Have they (like most climate researchers) been bought off, too?

Until we get an unbiased accounting of BOTH costs AND benefits of using fossil fuels, there is little hope in getting rational public policy that won't do more harm than good.

<http://www.drroyspencer.com/>

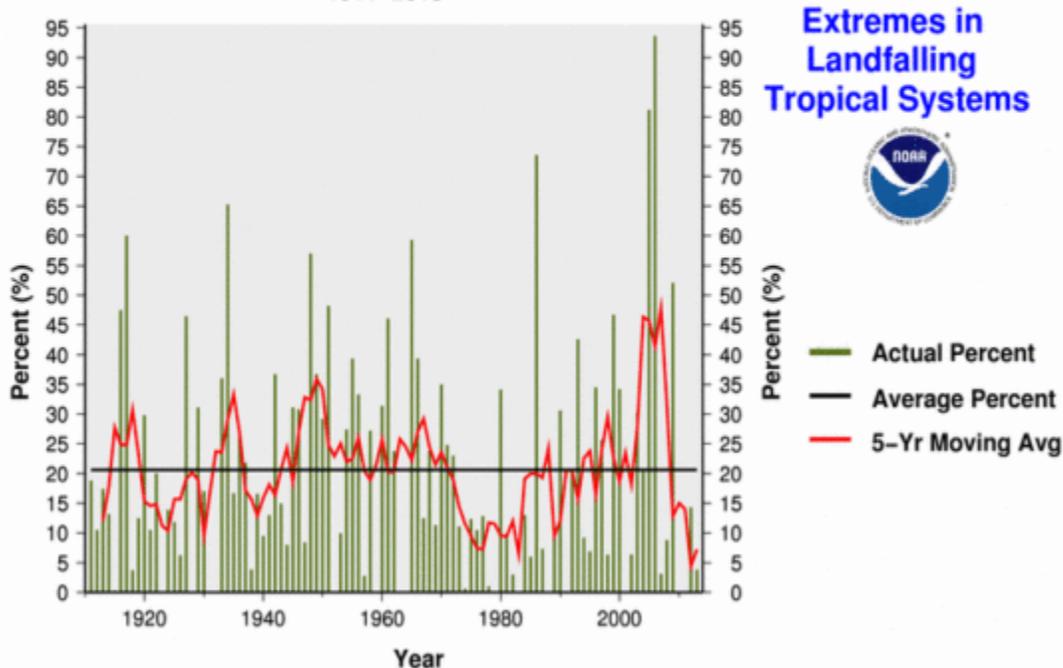
Posted in [Blog Article](#) | [60 Comments](#) »

G. ATLANTIC HURRICANE SEASON QUIETEST IN 45 YEARS

Posted on [October 26, 2013](#) by [justthefactswuwt](#)

U.S. Climate Extremes Index

Most Recent 12-Month Period (Feb–Jan)
1911–2013



National Oceanic and Atmospheric Administration (NOAA) – National Climatic Data Center (NCDC) – Click the pic to view at source

IMAGE CREDIT: [NATIONAL OCEANIC AND ATMOSPHERIC ADMINISTRATION \(NOAA\) – NATIONAL CLIMATIC DATA CENTER \(NCDC\)](#)

BY WUWT REGULAR JUST THE FACTS

FROM [THE INSURANCE JOURNAL](#):

“The 2013 Atlantic hurricane season looks set to go down as a big washout, marking the first time in 45 years that the strongest storm to form was just a minor Category 1 hurricane.

<http://wattsupwiththat.com/2013/10/26/atlantic-hurricane-season-quietest-in-45-years/>

H. CARBON CAPTURE AND SEQUESTRATION INSTITUTE MEETING

Submitted by George Holliday

I went to Washington DC to attend the EED meeting. The Carbon Sequestration and Capture (CCS) Institute held an open meeting on Sunday October 20, 2013, which I attended. It was an interesting and useful meeting. At the beginning of the meeting Brad Page, the Institute CEO disavowed **carbon sequestration and capture** was being discussed or contemplated for any purpose other than “**enhanced oil and gas recovery**”. Each of the following presenters maintained that same “**No Climate Change**” theme. However, the Institute FIVE-YEAR

STRATEGIC PLAN (<http://cdn.globalccsinstitute.com/sites/default/files/media-releases/94481/global-ccs-institute-five-year-strategic-plan-march-2013.pdf>) discusses “Climate Change” nineteen (19) times as a means of moderating temperature rise. It appears 1) the Institute no longer believes in “Climate Change,” 2) the Institute was soft peddling Climate Change to avoid any discussion of the subject, or misrepresenting the goal of the Institute. Whatever the reason for the **No Climate Change discussion**, the meeting attendees left the meeting confused.

I. CLAIM: ‘[IN]ABILITY TO ADAPT TO CHANGES IN CLIMATE PATTERNS’ IS CAUSING LOSSES IN THIRD WORLD COUNTRIES

Posted on [October 25, 2013](#) by [Anthony Watts](#)
From [Inderscience Publishers](#) and United Nations

Despite attempts at adaption losses and damage from climate change are significant

An open access special issue of the *International Journal of Global Warming* brings together, for the first time, empirical evidence of loss and damage from the perspective of affected people in nine vulnerable countries. The articles in this special issue show how climatic stressors affect communities, what measures households take to prevent loss and damage, and what the consequences are when they are unable to adjust sufficiently. The guest-editors, Kees van der Geest and Koko Warner of the United Nations University Institute for Environment and Human Security (UNU-EHS) in Bonn, Germany, introduce the special issue with an overview of key findings from the nine research papers, all of which are available online free of charge.

<http://wattsupwiththat.com/2013/10/25/claim-inability-to-adapt-to-changes-in-climate-patterns-is-causing-losses-in-third-world-countries/#more-96287>

J. FRIDAY FUNNY – A TRIBUTE TO THE LIFE OF CLIMATE CHANGE

Posted on [October 25, 2013](#) by [Anthony Watts](#)

Perhaps a eulogy will help Dana Nuccitelli and others come to terms with the death of the AGW hypothesis.

By Craig Lindberg

Perhaps Dana Nuccitelli and others can’t come to terms with the death of the AGW hypothesis because Climate Change hasn’t been properly eulogized. Maya Angelou once wrote; “I can accept the idea of my own demise, but I am unable to accept the death of anyone else. I find it impossible to let a friend or relative go into that country of no return. Disbelief becomes my close companion, and anger often follows in its wake.”

I fear Dana likewise is likewise suffering from the denial and anger that follows the loss of a loved one. To that end, I offer these words to try to bring some comfort and closure to him and his friends who are tormented by the loss of their dear friend and long-time companion.

I never had the opportunity to meet Climate Change personally;

<http://wattsupwiththat.com/2013/10/25/friday-funny-a-tribute-to-the-life-of-climate-change/#more-96263>

K. IPCC CALLS OFF PLANETARY EMERGENCY?*

carbon capture journal

Carbon capture and storage newsletter

Oct 28, 2013

[Keeping up the momentum with carbon capture and storage](#)

Carbon Capture Journal conference in London, Nov 19
Speakers from DECC, BP, Shell, TCM, Crown Estate
Admission £10 [more information](#)

[Advanced Emissions Solutions progresses on carbon capture research](#)

The company has been awarded two R&D contracts by the DOE to reduce carbon capture costs and investigate a new sorbent technology.

Online resources

Is China the last hope for carbon capture technology?

- (Washington Post) - Remember carbon capture and storage? Five years ago, the idea of grabbing the carbon dioxide from coal and gas power plants and burying it deep underground was considered an essential technology for curbing the world's greenhouse-gas emissions. [>>more](#)

Recent Progress Shows China's Leadership on Carbon Capture and Storage

- (World Resources Institute) - It is common knowledge that China burns a large amount of coal, with the fuel accounting for nearly 70% of China's primary energy consumption in recent years. What is less commonly known is that China is also working on ways to reduce the

FOR SALE: 100 t/d CO₂ capture demonstration plant in the UK

The Carbon Capture pilot plant located at Ferrybridge Power Station in Yorkshire, UK is due to complete its scheduled test programme in December 2013, having successfully completed its original project objectives. The project partners invite expressions of interest for the purchase of this plant for relocation to a new test site.

The plant represents a clear demonstration of CO₂ capture technology; nominally rated at 100 tonnes of CO₂ capture per day, it is the largest post-combustion capture pilot in the UK, and currently takes flue gas from a working power station.

Expressions of interest should be directed to:

Sorcha.schnittger@sse.com

Carbon Capture Journal Network



impact of its coal use, including aggressively pursuing research and demonstration of carbon capture, utilization and storage (CCUS) technology. [>>more](#)

New Solvent May Help Make Carbon Capture Affordable

- (ThomasNet) - A new partnership linking a small company out of Colorado called ION Engineering, the U.S. Department of Energy's (DOE), the Nebraska Public Power District (NPPD), and the University of North Dakota's Energy & Environmental Research Center (EERC) may be on the verge of finding a solution. [>>more](#)

Tebodin wins big order for a unique project in Abu Dhabi

- (Europetrole) - Abu Dhabi Future Energy Company, also known as Masdar, has initiated a carbon capture and storage project. [>>more](#)

Study Shows Why We Need A Carbon Tax, Not R&D, To Preserve Livable Climate For Our Children

- (Clean Technica) - So there's this new study in Nature Climate Change, "Intra- and intergenerational discounting in the climate game." [>>more](#)

Highlights and presentations from the Global Status of CCS: 2013, Seoul

- (Global CCS Institute blog - Claire Ginn) - The Global CCS Institute's eighth international Member event was held in Seoul, South Korea, from 9 to 11 October. The agenda featured a series of leading international speakers showcasing the latest developments in the CCS arena, and each session saw good audience and panel discussion. [>>more](#)

US EPA's proposal to set standards of performance for emissions from electric utility generating units

Interact with the carbon capture community, share experiences and make contacts. Nearly 1000 members! [Visit our online networking site](#)

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CCS in Australia
CarbonNet commercial CCS network in Victoria
CSIRO's Tarong post combustion pilot plant
CCSNET - new drive for Australian CCS research
CO2CRC: celebrating ten years of leading research

Technology Centre Mongstad - progress one year on
CO2Stored - offshore UK carbon storage database online
The potential for capturing carbon with concrete
MIT electrochemical amine process offers 'cheaper' CO2 capture

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Our sister publication



Digital Energy Journal - the world's leading magazine and newsletter for information technology and communications in oil and gas - see <http://www.d-e-j.com>

- (Global CCS Institute blog - Victor Der) - Using its authority under Section 111 of the Federal Clean Air Act, the United States Environmental Protection Agency (EPA) has developed performance standards for carbon dioxide (CO₂) emissions from new fossil fueled electric utility generating units (EGU). [>>more](#)

Feature articles

[CarbonNet - developing a commercial model for a CCS network in Australia](#)

CarbonNet is investigating the potential for a shared, large-scale CCS network in the Gippsland region, Victoria, Australia. By the Department of State Development, Business & Innovation, Victoria

[Tarong post combustion pilot plant](#)

Australian power company Stanwell Corporation Limited and the Commonwealth Scientific and Industrial Research Organisation (CSIRO) have developed an amine based carbon dioxide capture facility. By Sanger Huang, Ashleigh Cousins, Aaron Cottrell, Paul HM Feron, CSIRO.

[Technology Centre Mongstad - progress one year on](#)

One year after the launch of Norway's Technology Centre Mongstad, the world's largest carbon capture testing facility, we spoke to managing director Frank Ellingsen about the developments so far. By Karl Jeffery.

[Capturing carbon with concrete](#)

Professor Peter Claisse of Coventry University looks at the potential for storing carbon dioxide in concrete.

Forthcoming events

- Carbon Dioxide Utilisation Summit 2013, Brussels, Oct 30-31 [>>more](#)
- Keeping the momentum with carbon capture,

London, Nov 19 [>>more](#)

- WEET Forum: Latest on the EU ETS: structural reform, the aviation industry and prospects for international integration,

London, Dec 5, 2013 [>>more](#)

- Carbon Dioxide Utilization Congress 2014, San Diego, Feb 19-20, 2014 [>>more](#)

- 12th International Conference on Greenhouse Gas Control Technologies, Austin, Texas, Oct 5-9, 2014 [>>more](#)

Editorial / Advertising Opportunities

We welcome editorial enquiries for the next issue, Jan/Feb 2014. The issue will focus on UK projects and CO2 transport / flow measurement. Please get in touch at editor@carboncapturejournal.com.

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