

ENVIRONMENTAL ENGINEERING NEWSLETTER

21 July 2014

This week's edition includes:

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.

Be sure to read item "M" in this report.

George Holliday

This week's edition includes:

1. ENVIRONMENT A 3 JULY 2014

ENVIRONMENTAL PROTECTION AGENCY PROPOSED RULES

Carbon Pollution Emission Guidelines for Existing Stationary Sources and Standards for Modified and Reconstructed Stationary Sources: EGUs

79FR 37981-37982

SUMMARY: The Environmental Protection Agency (EPA) published in the Federal Register on June 18, 2014, the proposed rules, "Carbon Pollution Emission Guidelines for Existing Stationary Sources: Electric Utility Generating Units" and "Carbon Pollution Standards for Modified and Reconstructed Stationary Sources: Electric Utility Generating Units." The EPA is announcing four additional public hearings, in addition to the previously announced dates on June 18, 2014.

DATES: Comments on the proposed rules. Comments must be received on or before October 16, 2014.

Because of the overwhelming response to the previously announced public hearings, the EPA will hold four additional public hearings. The following table outlines the updated public hearings schedule for the Carbon Pollution rules:

Carbon Pollution Public Hearings Schedule

Location	Original date	Additional date
Atlanta, Georgia.....	July 29, 2014.....	July 30, 2014.
Denver, Colorado.....	July 29, 2014.....	July 30, 2014.
Washington, DC.....	July 30, 2014.....	July 29, 2014.
Pittsburgh, Pennsylvania....	July 31, 2014.....	August 1, 2014.

ADDRESSES: On July 30, 2014, one additional public hearing will be held in Atlanta, Georgia, at the Sam Nunn Atlanta Federal Center Main Tower Bridge Conference Area, Conference Room B, 61 Forsyth Street SW., Atlanta, Georgia 30303, and one additional public hearing will be held in Denver, Colorado, at the EPA's Region 8 Building, 1595 Wynkoop Street, Denver, Colorado 80202. On July 29, 2014, one additional public hearing will be held in Washington, DC, at the William Jefferson Clinton East Building, Room 1152, 1201 Constitution Avenue NW., Washington, DC 20004. On August 1, 2014, one additional public hearing will be held in Pittsburgh, Pennsylvania, at the William S. Moorhead Federal Building, Room 1310, 1000 Liberty Avenue, Pittsburgh, Pennsylvania 15222. The hearings in Pittsburgh, Pennsylvania, Atlanta, Georgia, and Washington, DC, will convene at 9:00 a.m. and end at 8:00 p.m. (Eastern Daylight Time). The hearing in Denver, Colorado, will convene at 9:00 a.m. and end at 8:00 p.m. (Mountain Daylight Time). For all hearings, there will be a lunch break from 12:00 p.m. to 1:00 p.m. and a dinner break from 5:00 p.m. to 6:00 p.m. Because of the large number of speakers requesting time to speak at the previously announced hearings, we discourage those that have already registered to speak from changing their currently scheduled speaking time.

<http://www.gpo.gov/fdsys/pkg/FR-2014-07-03/pdf/2014-15664.pdf>

B. NASA LAUNCHES SATELLITE TO STUDY CARBON DIOXIDE IN ATMOSPHERE

NASA has a new perspective on global warming - more than 400 miles above the Earth. On Wednesday, the agency launched a spacecraft designed to study carbon dioxide in the atmosphere. The project is also likely to rekindle debate about the space agency's role in studying climate change

The "Orbiting Carbon Observatory-2" lifted off from Vandenberg Air Force Base, Calif., deploying its solar panels after settling into an initial 429-mile-high orbit.

NASA scientists expect it to detect and monitor Earth's sources of atmospheric carbon dioxide - and locations where the gas collects on the planet. NASA called atmospheric carbon dioxide "the leading human-produced greenhouse gas responsible for warming our world."

NASA said OCO-2 will take the agency's studies of carbon dioxide and the global carbon cycle to new heights. The mission is expected to produce the most detailed picture to date of natural sources of carbon dioxide, as well as their "sinks" - places on Earth's surface where carbon dioxide is removed from the atmosphere.

The mission is already raising concerns among some Republicans in Congress skeptical about mankind's role in climate change and concerned about NASA's role in the debate about it. "While it is certainly appropriate for NASA to develop new technologies and instruments to push the boundaries of remote sensing from space, I worry that if NASA is asked to collect greenhouse gas data, it will have to sacrifice its core exploration mission," said Rep. Lamar Smith, R-San Antonio, who holds NASA's purse strings as chairman of the House Science, Space and Technology Committee. "There are already 13 other agencies that study climate change, and only one tasked with space exploration. We must ensure that NASA is not taken over by other requirements or political agendas." But NASA sees climate research as a valuable service the agency is uniquely equipped to provide. "Climate change is the challenge of our generation," said NASA Administrator Charles Bolden. This mission "is both timely and important," said Michael Freilich, director of the Earth Science Division of NASA's Science Mission Directorate in Washington. "OCO-2 will produce exquisitely precise measurements of atmospheric carbon dioxide concentrations near Earth's surface, laying the foundation for informed policy decisions." Houston Chronicle 3 July 2014

C. MESSAGE FROM EED CHAIR

My name is Arnold (Arnie) Feldman and I am the new Chair of the Env. Engr. Division (EED) for the next two years (July 1, 2014 thru June 30, 2016); my contact information is given below. First and foremost, my thanks to Andy Miller who has Chaired the past 2 years – he has done a great job especially in the start of reinvigorating the EED. ASME, as most of you are aware, is undergoing a major change from K&C to the new TEC. These changes are taking place as I write this and will be occurring over the next year. EED, will for now continue, in its present form and as Andy had started will be enhancing and updating our Committees: I will keep you informed of both processes (the TEC and Committees) as they occur. We will be expanding, developing and clarifying the EED webpages on ASME.ORG. This will allow us to enhance communication within the EED (we have about 1,300 members). I encourage you to use ASME.ORG and as we change the EED pages I will keep you informed. George Holliday is the editor and publisher of the Weekly EED Newsletter: great job George. It is interesting reading. Besides including environmental news it presents a variety of opinions (both pro/con) on various issues. I encourage you to contribute (send an email to George) to the Newsletter. One of the new committees we are forming is an Environmental Liaison Committee (ELC) that will have members from the other Divisions and Institutes. Environmental issues cut across many of the Institute and Division lines and expertise. The goal of the ELC is to utilize the expertise and resources of ASME's Technical Divisions and Institutes to coordinate the cross-cutting, environmental related activities. Steve Unikewicz has agreed to Chair the ELC. If you are interested in joining please feel free to contact me. We will also be reactivating many of our Technical Committees (e.g., CCS, Air Pollution Control, Pollution Prevention, etc.) and hope that they become proactive in their activities. These Technical Committees will give the members the opportunity to share issues, develop position

papers, and network among your peers. The Technical Committees are not limited to ASME members (but it helps). If interested please let me know.

If you have any questions about EED, its activities or its committees please do not hesitate to contact me.

Arnie Feldman

Chair EED

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D. ENVIRONMENTAL PROTECTION AGENCY

40 CFR Part 13

[FRL-9910-14-OCFO]

Administrative Wage Garnishment

AGENCY: Environmental Protection Agency (EPA).

ACTION: Direct final rule.

SUMMARY: The Environmental Protection Agency (EPA) is taking direct final action to amend EPA's claims collection standards to implement the administrative wage garnishment provisions of the Debt Collection Improvement Act of 1982, as amended by the Debt Collection Improvement Act of 1996 (DCIA). The direct final rule will allow the EPA to garnish non-Federal wages to collect delinquent non-tax debts owed the United States without first obtaining a court order.

<http://www.gpo.gov/fdsys/pkg/FR-2014-07-02/pdf/2014-15578.pdf>

Editor's Note: See Item H below, for more discussion. GHH

E. LOCAL OFFICIALS APPROVE CHEVRON REFINERY UPGRADE IN CALIF.

The City of Richmond Planning Commission in California approved certified Chevron's environmental impact report for the \$1 billion upgrade of a refinery. The company would be required to follow new conditions created by local environmental groups. "We are pleased that the Richmond Planning Commission made a decision; however, we have grave concerns over conditions placed on the approval," said Melissa Ritchie, spokeswoman for Chevron.

<http://www.ogj.com/articles/2014/07/chevron-s-richmond-refinery-upgrade-advances.html>

Roger Zygmunt

F. CHRIS CHRISTIE ADMINISTRATION LAUDS PROPOSED FEDERAL EPA REGS

The July issue of *Environment & Climate News* reports [New Jersey Gov. Chris Christie's administration broke ranks with prominent Republicans and moderate Democrats by endorsing the Obama administration's attack on affordable energy](#). A New Jersey Department of

Environmental Protection spokesman said the department and Christie administration welcomed newly proposed federal EPA restrictions on coal power plants.

<http://news.heartland.org/newspaper-article/2014/06/06/chris-christie-administration-endorses-obamas-carbon-dioxide-restrict-0>

2. TRANSPORTATION A API AIMS TO KEEP PUBLIC ATTENTION ON KEYSTONE XL

The American Petroleum Institute intends to maintain public awareness on the Keystone XL pipeline, despite the Nebraska Supreme Court's plan to hear arguments on the project's route within the state in early September and issue a final ruling after the midterm elections.

"Keystone's a priority for API and the industry. We continue to advocate for it, and we continue to want people to talk about it," said Sabrina Fang, spokeswoman for API. Fang said even with the unresolved case, an environmental analysis issued by the state is enough for the president to approve the project.

<http://thehill.com/policy/energy-environment/212022-keystone-backers-want-to-keep-pipeline-in-the-public-eye>

COMMENTS:

A. THE WEEK THAT WAS: 2014-07-05 (JULY, 5 2014)

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

Temperature Tiff: The controversy in the climate blogs about the surface temperature record as reported by the US Historical Climatology Network (USHCN) in conjunction with the National Climatic Data Center (NCDC) of the National Oceanic and Atmospheric Administration (NOAA) appears to be ending. The main issues include: data adjustments for missing data, the moving of recording stations, the disappearance of recording stations and did Tom Heller, who blogs under the name Steve Goddard, use inappropriate methodology to state that the historic record has been distorted and there has been no appreciable warming trend in the US surface record since the 1930s?

The motivations of the government professional who maintain the records should not be an issue. However, press releases claiming May 2014 is the hottest May ever since the record started in 1880, without explaining the lack of consistency in the record, is very much at issue. Anthony Watts (WUWT) explains his role in the controversy in a way that is worthy of emulation. Joe D'Aleo (ICECAP) discusses stations that are no longer reporting temperatures, but continue in the record with estimates, not measurements, of temperatures. D'Aleo calls these zombie stations. Paul Homewood (Not a Lot of People Know) reports on major adjustments, apparently unwarranted, to a station in Luling Texas. The net effect was a significant cooling of 1934 temperatures as compared with 2013.

All this brings into question the consistency of the US surface temperature record, which is considered among the best in the world. The controversy illustrates why the satellite record of atmospheric temperatures should be the standard for estimating temperature trends. The satellite record is far more comprehensive, it is reported by two independent groups, and is independently confirmed by weather balloon data. It is not sensitive to changes inland use, such as urbanization, and it is in the atmosphere where the greenhouse effect takes place.

To further complicate the issue, Anthony Watts reports that NOAA has quietly changed the hottest month on record for the US back to July 1936, from July 2012. See links under Measurement Issues –Surface Temperatures

Statistical Significance: In a related issue, Andrew Montford (Bishop Hill) states that: *“we are unable to demonstrate a statistically significant change in surface temperatures because of the difficulty in defining a statistical model that would describe the normal behaviour {British spelling} of surface temperatures, a claim that seems to have the support of the Met Office. I don't know of any other metric in which a statistically significant change has been demonstrated.”*

Montford explores the concept that the instrumental surface temperature record is too short to recognize if temperatures are out of the ordinary. The issue of statistical significance of the record depends upon a suitable statistical model of earth's natural temperature variations – something that has not been developed.

A proper statistically model may require temperature variation over the Holocene (about the past 11,700 years). If so, the entire global warming issue would be minimized. Geologists, and others, report that the temperature variation during the Holocene was greater than temperature variation since the Little Ice Age and that there were a number of periods warmer than today. Montford's assertion calls into question the numerous papers that calculate a statistical probability in order to claim current temperatures are unusual. See links under Questioning the Orthodoxy, Seeking a Common Ground, and Measurement Issues --Statistics

Coral Reefs: Die-back of coral reefs have been called proof that human-caused (anthropogenic) global warming (AGW) is destructive to the environment. We now have three more reports demonstrating that human influence can be destructive, but it is not from a warming, whether or not a human cause can be established. The International Union for Conservation of Nature, released a study on coral reefs in the Caribbean, and found a more than 50% decline in the coral cover from 1970 to 2012. Further, it reported the reefs may disappear within the next 20 years. Alarmists emphasized the disappearance, but ignored the title of the report which emphasized the decline can be reversed, if proper steps are taken. The decline is principally attributed to an overfishing of parrotfish and sea urchins, which feed on algae. The decline in these animal populations has resulted in a growth in algae, which smothers the coral. Another contributing cause is coastal pollution.

In addressing global warming the report states: *“There is a weak but insignificant negative correlation between changes in coral cover and number of (DHWs) [degree heating weeks], regardless of whether the data were analyzed for each warming event or combined or whether we included all the localities or restricted to only localities that experienced at least 8 DHWs. Moreover, the greatest losses coral cover occurred of reef locations with less than 8 DHWs.”(pp 18-19)*

A paper reviewed by NIPCC found that coastal pollution, not temperatures, is causing a decline in the Great Barrier Reef off Australia. Another paper reviewed by NIPCC analyzed natural temperature variation from the El Niño Southern Oscillation and stated this may cause a change in composition of life on the coral reefs off Brazil, but reefs remain healthy. See links under Changing Seas and NIPCC Reports.

Earth Tremors: A flurry of newspaper and other reports occurred stating that hydraulic fracturing (fracking) for oil and gas is causing minor earth quakes in the US. These reports were not accurate. A study released in January by the US Geological Survey (USGS) attributed an increase in minor earthquakes in Oklahoma to the injection of waste water into rock formations. This is a separate issue from the processes used to extract oil and gas.

Disposal of water from geological formations has long been an issue for the oil and gas industry. Waste water from fracking adds to it. This is an issue properly addressed by local officials and the oil and gas industry. See links under Oil and Natural Gas –the Future or the Past?

Climate-Smart Development? The World Bank and Climate Works [sic] Foundation published a joint report titled “Climate-Smart Development: Adding up the benefits of actions that help build prosperity, end poverty and combat climate change.”It contains some useful proposals, such developing of cleaner stoves in China. Such stoves would significant improve indoor air, and health, in many parts of the globe.

However, there are a number of questionable assertions in the report which give rise for concern. It uses the now trendy term “climate pollutants”, and includes carbon dioxide (CO2). It lists methane, carbon black, atmospheric ozone, and some hydro fluorocarbons as “short-lived climate pollutants” and asserts these are responsible for 40% of the current warming (which is no longer occurring.) The report references the 2012 World Bank report: “Turn Down the Heat: Why a 4°C Warmer World Must Be Avoided.”The 2012 report uses the high end of the estimates of the UN Intergovernmental Panel on Climate Changes (IPCC) of warming from a doubling of atmospheric CO2, or equivalents. As the disparity between temperature forecasts from the models and atmospheric temperature observations increases, these high numbers are increasingly doubtful. Perhaps the new report will be a useful guide for improving the lives those in poverty, but, it is how programs are executed that is the deciding factor. See links under Expanding the Orthodoxy.

Questionable Papers: The Proceedings of the National Academy of Sciences published a paper of questionable value. It claimed that heat, not natural disasters, will force people to move. The conclusions were based on a study of moves by 7,000 households over a 15 year period –located in Indonesia. Indonesia straddles the equator with latitude ranging from about 10 degrees S to 5 degrees N. To make generalizations from this study is absurd.

Las Vegas, Nevada is the site of the Ninth International Conference on Climate Change.

Census data shows it population grew from 165,000 in 1980 to 583,000 in 2010. The average July high temperature is about 106 deg F. No doubt, most people moved to Las Vegas from a cooler climate. Could it be claimed that heat causes people to move to warmer climates? Michael Oppenheimer of Princeton University is a co-author of the paper. He is a major influence in the IPCC and in Princeton’s climate model that does not accurately forecast temperatures. See links under Communicating Better to the Public –Make things up.

Past Famine: The National Science Foundation funded and published a paper on population changes in the US Southwest from 500 to about 1300. The population grew as farming, needing irrigation, grew. Then it crashed. This finding is not particularly new. Other research suggests that the population crash was the result of a major drought. Strangely, the article does not discuss

the drought and is written in a way to imply overpopulation was the cause of the population crash.

What is particularly disturbing is that the article suggests modern civilization will soon suffer the consequences of overpopulation. It is the use of fossil fuels that has freed modern civilization from subsistence farming. A prolonged drought in modern countries may cause changes in food production, but it is doubtful if it would cause a population crash. The real fear is a major cooling period, which would limit production in upper latitudes, particularly the northern latitudes.

Number of the Week: Greater than 15, yet less than 1. The Congressional Budget Office produced a report with a stunning graph –“Projected Use of Cellulosic Biofuels, Compared With the Use Mandated by the Renewable Fuel Standard”. It shows that by 2022 the law mandates that about 15 billion gallons of cellulosic biofuels must be used. But, the Energy Information Administrates projects that less than 1 billion gallons will be produced. A Washington mandate is not sufficient to make something feasible. Is the next step to issue a mandate that wind power be reliable? See link under Alternative, Green (“Clean”) Energy –Other.

<http://www.sepp.org/twtwfiles/2014/TWTW%207-5-14.pdf>

B. THE WEEK THAT WAS: 2014-07-12 (JULY, 12 2014)

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

Due to the Ninth International Climate Change Conference (ICCC-9) sponsored by The Heartland Institute, The Week That Was will be less comprehensive than usual.

Over 600 people attended the Heartland Conference, ICCC-9, held in Las Vegas, Nevada, from July 7 to 9. There were over 60 speakers. Most spoke for about 12 minutes on the 21 different panels covering different issues on the science of human-caused global warming/climate change and the policies being implemented by governments, supposedly to address global warming. Keynote speakers had about 25 minutes. There were numerous awards given to scientists for their long service in insisting that the fear of global warming/climate change be based on rigorous science, rather than politicized science.

The schedule did not permit attending all the panel presentations, and this discussion will focus on scientific issues. Virtually the entire program is available on the internet:

<http://climateconference.heartland.org/>

Some of the Awards: Fred Singer presented the Fredrick Seitz Memorial Award to Sherwood Idso for his pioneering work on the enormous benefits of enhanced atmospheric carbon dioxide (CO₂) for humanity and the environment. Virtually all food crops and most other plants grow better in an atmosphere richer in carbon dioxide than today’s atmosphere. As human emissions increase atmospheric carbon dioxide increase, we can look forward to a world more bountiful than the one today and a more robust environment in general.

In his long career, the late Fredrick Seitz exemplified that best a dedicated scientist can offer and after long service was recognized as President Emeritus of Rockefeller University, a premier medical research institution. He was the founding chairman of the Science and Environmental Policy Project (SEPP) and supported the formation on the Nongovernmental International Panel on Climate Change (NIPCC).

Arthur Robinson presented the Courage in Defense of Science Award to Willie Soon. Long an outspoken critic of the UN International Panel on Climate Change (IPCC), Soon has demonstrated unusual courage in maintaining his views in spite of outrageous accusations from

the climate establishment. His professional career has probably suffered from his public statements, but his integrity is intact.

The EarthFree Institute presented the Speaks Truth to Power Award to Patrick Moore. Moore gave a striking keynote address “Confessions of a Greenpeace Drop-out” presenting some of misguided policies of the environmental industry that are detrimental to humanity and the environment. Moore’s comment that we should view the Canadian oil sands as a natural oil spill that needs to be cleaned up will outrage his former colleagues in Greenpeace.

Former FBI agent and IRS person of special interest, Gary Aldrich presented the Climate Science Whistleblower Award to Alan Carlin who, when with the EPA, challenged its finding that carbon dioxide emissions endanger human health. Several commentators thought Carlin’s acceptance speech to be particularly moving.

Calvin Beisner presented Roy Spencer with the Outstanding Evangelical Climate Scientist Award. In a Senate hearing, Rhode Island Senator Sheldon Whitehouse tried to attack Spencer’s scientific findings through Spencer’s religious beliefs. The senator only succeeded in disgracing himself and the senate. Spencer and his colleague, John Christy, have endured significant personal criticism for their willingness to publicly post their calculations of atmospheric temperatures from satellite measurements. They have given the nation and the world the only transparent, reliable temperature record, which is also the most comprehensible in existence. If religious beliefs give them the moral compass to take such actions, so be it.

The Heartland Institute presented the Lifetime Achievement in Climate Science Award to S. Fred Singer, President and Chairman of the Science and Environmental Policy Project (SEPP). Singer conceived and directed the independent Nongovernmental International Panel on Climate Change (NIPCC) project. He recruited an international array of superb scientists to write the initial NIPCC report, which was published by the Heartland Institute. The NIPCC project has grown significantly and now is a counterbalance to the government-funded IPCC, which ignores significant science or buries it below politically motivated exaggerations.

NIPCC v. IPCC –Physical Science: Bob Carter and Fred Singer, co-authors/editors of the NIPCC reports, and contributing author Willie Soon stressed the major differences between the NIPCC report on the physical science and the IPCC report on the physical science. The NIPCC report includes science the IPCC report ignores or buries. The high confidence the IPCC expresses about its work in Summary for Policymakers is not substantiated by the physical science.

NIPCC v. IPCC –Biological Impacts: NIPCC co-author/editor Craig Idso discussed the enormous benefits to the biosphere from increasing concentrations of atmospheric carbon dioxide. Craig Loehle focused on the shoddy methods used in the IPCC report to make claims about species extinction. Cold tolerance, not heat, is the limiting factor in species range.

Temperature Measurements: Several speakers, including Anthony Watts and Larry Gould, addressed the flaws in the surface temperature record. Some of these were discussed in the July 5 TWTW. Watts presented the final report of the surface stations project, which examined poor siting and bias adjustments by NOAA and NASA-GISS [Goddard Institute of Space Studies.]

The government agencies which maintain the records have been less than transparent in their mathematical manipulation of them, creating considerable concern in their reliability. Yet, the

US stations are considered to be the gold standard. It is time to move to a new standard, the satellite record, which is maintained by two independent groups. These records are the most comprehensive available. They include the atmosphere over areas where there are no surface instruments, such as the oceans which cover 71% of the earth's surface.

Models: A number of speakers, including Roy Spencer, emphasized that the models are overestimating warming trends, some by a great amount. There has been no warming trend for at least a decade. Thus, the models should not be used as a basis for policy, yet they are, particularly in the EPA finding that greenhouse gases, particularly carbon dioxide, endanger human health.

Getting Colder? Some speaker focused on the possibility of the planet cooling. Joe D'Aleo addressed the recent record of colder, snowier winters in the US and the Northern Hemisphere. Howard Hayden gave a historic overview of the current climate period, a short time of warming in an age of glaciation and Fred Goldberg discussed the early 21st century reduction in Arctic ice extent was not unusual and the ice is rebounding. If the current trend of Arctic ice continues, it will dash the dreams of those who hope to profit from trans-Arctic sea routes.

The Sun: German scientist Sebastian Lüning and Russian scientist Habibullo Abdussamatov presented their thoughts that the sun has become dormant and that this lessened activity will result in a cold period that may be similar to the Little Ice Age. If so, then climate change will be a real threat to agriculture production and to humanity. The very opposite of what current western government policies are designed to prevent.

Sea Levels: On separate panels, Fred Singer of SEPP and Tom Wismuller of the Right Climate Stuff Team presented their research on sea level rise in the 21st century. Singer thinks it will be in the order of 7 to 8 inches (18 to 20 cm). He thinks that the West Antarctic ice sheet (in the Ross Sea) will continue to melt for the foreseeable future, even though snow and ice on the continent of Antarctica are accumulating. Wismuller calculates that sea level rise will be even less, a maximum of 5 inches (13 cm). Both calculations are far less than the projections by the IPCC and orders of magnitude less than the alarmist US National Climate Assessment.

Changing pH: In his presentation on the biological impacts of increasing carbon dioxide, Craig Idso touched on the impacts of the possibility of a lowering of ocean pH. Idso does not foresee a problem from a slow lowering of pH, should it occur. The waters will not turn acidic as many alarmists claim. Further, far too many of the experiments used to claim dramatic results actually shock the system, which any aquarium owner knows should not be done.

Prediction: In 2000, geologist Don Easterbrook predicted a cooling period will start in a few years and stated that thus far his prediction appears to be happening. Easterbrook based his prediction on projecting well-defined patterns of warming and cooling into the future. In his view, the term pause is a misnomer because the term assumes continuous warming is the normal. We may be in a phase change towards a cooling. Based on the Greenland ice core record, between about 9,000 to 700 years ago (the latter the start of the Little Ice Age) the climate was about 2.5 to 5.5 deg F warmer than today. Glacial advances and retreats match changes in the Pacific Decadal Oscillation (PDO). Then, the question is what drives the PDO? Easterbrook

thinks that, based on the isotopes of Carbon and Beryllium in the ice cores, solar changes, total solar insolation, solar magnetism, and associated changes cosmic ray intensity (Svensmark hypothesis), change the PDO. Low sunspots are associated with lower solar insolation and solar magnetism and greater cosmic rays. It will be interesting to see if Easterbrook's prediction holds. His views are similar to those of Lüning and Abdussamatov

Success: The general commentary at the closing of the IPCC-9 was that the conference was enormously successful. The mood was pronouncedly upbeat. A lot of work needs to be done to sway the public, the political process, and the politicized scientific institutions. The NIPCC project is succeeding in bringing together independent scientists who openly question government-funded science, in spite of the personal attacks. These scientists realize that it is not who asserts a scientific theory or relationship, but how and why they claim to know it. Nature, not man, is the judge.

A New Paradigm? Since the recording of his talk is not available, Ken Haapala's presentation is outlined below.

After questioning the assertions that carbon and carbon dioxide are pollutants that must be taxed, Haapala expressed wonderment that the Department of Agriculture is one of the eleven government agencies involved in declaring that carbon dioxide emissions have a social cost. It is as if the Department of Agriculture does not recognize CO₂ is critical for photosynthesis, which is vital for green plants and virtually all life on this planet and it does not recognize the pioneering work of Sherwood Idso, and others. The Department of Agriculture should be praising the social benefits of carbon.

To address this madness, Haapala referenced the **Structure of Scientific Revolutions** by Thomas Kuhn, who asserts progress in scientific knowledge is not linear –but occurs in spurts. Up to the 1970s, most understanding of climate change was limited to geologists. It is normal and natural, and sometimes abrupt.

Kuhn states that often significant progress occurs when one concept (or mind-set) used in viewing a puzzle of natural science is replaced by another concept that better explains the puzzle. He calls the concepts paradigms. The paradigms include the way in which data and experiments are conducted and interpreted. For example, when the paradigm of a static surface of the earth was replaced by plate tectonics, our ability to explain the earth's history expanded greatly. In the 1970s, some scientists began speculating about the influence of increasing CO₂ in the atmosphere. Some thought it would cause cooling others thought it would cause warming. The very influential Charney Report estimated that a doubling of CO₂ would increase the earth's average temperatures by 1.5°C to 4.5°C. After this report, the focus of research has been on future warming from increasing CO₂. A new paradigm was widely accepted. The paradigm could be as stated in the title of an article by scientists from NASA's Goddard Institute for Space Studies: "Atmospheric CO₂ Is the Principal Control Knob Governing Earth's Temperature." In the 35 years since the Charney Report, five major IPCC reports have produced no improvement in understanding of the temperature impacts of a doubling of CO₂. Research has not been fruitful. Something is very wrong.

Based US government reports, SEPP calculated that from Fiscal Year (FY) 1993 to FY 2013 total US expenditures on climate change amount to more than \$165 Billion. More than \$35 Billion is identified as climate science. The White House reported that in FY 2013 the US spent \$22.5 Billion on climate change. About \$2 Billion went to US Global Change Research Program

(USGCRP). The principal function of the USGCRP is to provide to Congress a National Climate Assessment (NCA). The latest report uses global climate models, which are not validated, therefore speculative, to speculate about regional influences from global warming. Much of the remaining 89% of funding goes to government agencies and industries claiming they are preventing global warming/climate change, even though they do not understand the natural causes of climate change and, likely, far overestimate the influence of CO₂. These entities have a vested interest in promoting the fear of global warming/climate change.

It is time for the government to stop funding irrational fear of global warming/climate change based on a concept of climate that is not substantiated by the physical evidence. If we are to progress in our understanding of climate change, the paradigm must be changed from one that earth's temperatures are largely controlled by atmospheric CO₂, to one which recognizes that climate change is normal and predominately natural. Human CO₂ emissions have little, if any, influence on temperatures and other climate trends.

Number of the Week: 1 in 78,664,164,096. Congress sent the US Internal Revenue Service a request asking about emails targeting conservative and pro-Israeli groups. The emails were on 7 different disk drives, all of which crashed that month.

According to the person who made the calculations (unknown), the odds of a disk drive failing in any given month are roughly one in 36. The odds of two different drives failing in the same month are roughly one in 36 squared, or 1 in about 1,300. The odds of three drives failing in the same month are 36 cubed or 1 in 46,656. The odds of seven different drives failing in the same month is 36 to the 7th power = 1 in 78,664,164,096. Whether or not the calculations are accurate is not the major issue. The major issue is the IRS claiming they cannot produce the emails due to multiple disk drive failures.

<http://www.sepp.org/twtwfiles/2014/TWTW%207-12-14.pdf>

C. NCDC: 'OUR ALGORITHM IS WORKING AS DESIGNED'

Posted on [July 1, 2014](#) by [Anthony Watts](#)

In a [statement to Polifact today](#), NCDC made the following statement:

"... *our algorithm is working as designed*"

One wonders though, about [these](#) sorts of [things](#) that have been [found wrong](#) in their data file for USHCN, which is [represented to the public as "high quality"](#).

Here are few other things **that worked as designed**:

<http://wattsupwiththat.com/2014/07/01/ncdc-our-algorithm-is-working-as-designed/>

D. THE UPSIDE OF A CO₂-INDUCED DECREASE IN PLANT NUTRITIVE VALUE (2 JUL 2014)

Reference

Yin, J., Sun, Y. and Ge, F. 2014. Reduced plant nutrition under elevated CO₂ depresses the immune competence of cotton bollworm against its end of parasite. *Scientific Reports* **14**: 10.1038/srep04538.

Yin *et al.* (2014) set the stage for their report by stating "decreased foliar nitrogen and protein concentrations under elevated CO₂ reduce plant nutritional quality," diminishing the value of the foliage as a resource for *insect herbivores*, as described by the studies of Mattson (1980) and

Johns and Hugher (2002). And in support of this statement, they go on to report that most such previous studies have discovered that "decreases in plant nutritional quality under elevated CO₂ result in increased development times, mortality and [are] always associated with reduced food conversion efficiency, adult weight and population fitness of herbivore insects," citing the work of Stiling *et al.* (1999), Wu *et al.* (2006) and Chen *et al.* (2007). As their contribution to the subject, Yin *et al.* investigated the immune response of the larvae of the much-hated cotton bollworm (*Helicoverpa armigera*) - which they describe as "a major agricultural pest worldwide (Fitt, 1989; Wu and Guo, 2005)" - to attack by its chief parasitoid (*Mecroplitis mediator*) in both ambient and CO₂-enriched air (375 and 750 ppm, respectively).

The three Chinese scientists discovered elevated CO₂ decreased the immunity of the cotton bollworm larvae to attacks by *M. mediator* - the latter of which was *not* impacted by the CO₂-enriched air - as a result of the reduced nutritional quality of the wheat that had been grown in the CO₂-enriched air and upon which the cotton bollworms had feasted. In quoting the concluding words of the authors, "our results suggest that lower plant nutritional quality under elevated CO₂ could decrease the immune response of herbivorous insects against their parasitoid natural enemies," which could prove to be a huge boon to agriculture the world over.

Additional References

Chen, F., Wu, G., Parajulee, M.N. and Ge, F. 2007. Impacts of elevated CO₂ and transgenic Bt cotton on performance and feeding of three generations of cotton bollworm in a long-term experiment. *Entomologia Experimentalis et Applicata* **124**: 27-35.

Fitt, G.P. 1989. The ecology of *Heliothis* species in relation to agroecosystems. *Annual Review of Entomology* **34**: 17-53.

Johns, C.V. and Hugher, L. 2002. Interactive effects of elevated CO₂ and temperature on the leaf-miner *Dialectica scariella* Zeller (Lepidoptera: Gracillariidae) in Paterson's Curse, *Echium plantagineum* (Boraginaceae). *Global Change Biology* **8**: 142-152.

Stilling, P., Cattell, M., Moon, D.C., Rossi, A., Hungate, B.A., Hymus, G. and Drake B. 1999. Decreased leaf-miner abundance in elevated CO₂ lowers herbivore abundance, but increases leaf abscission rates. *Global Change Biology* **8**: 658-667.

Wu, G., Chen, F. and Ge, F. 2006. Response of multiple generations of cotton bollworm *Helicoverpa armigera* Hubner, feeding on spring wheat, to elevated CO₂. *Journal of Applied Entomology* **131**: 2-9.

Wu, K.M. and Guo, Y.Y. 2005. The evolution of cotton pest management practices in China. *Annual Review of Entomology* **50**: 31-52.

Archived 2 July 2014

<http://www.nipccreport.org/articles/2014/jul/2jul2014a3.html>

E. MODELLING DROUGHT THROUGHOUT THE WORLD (1 JULY 2014)

The authors of this study conclude "it is probably not possible to determine reliable decadal and longer-term trends in drought due to climate change without first accounting for the effects of ENSO and the Pacific Decadal Oscillation," the former of which phenomena they describe as "the most common source of episodic droughts around the world." And, there are still numerous significant problems that need to be resolved before the desired results can be obtained. And until this occurs, drought predictions should be looked at with a very jaundiced eye...

Reference

Trenberth, K.E., Dai, A., van der Schrier, G., Jones, P.D., Barichivich, J., Briffa, K.R. and Sheffield, J. 2014. Global warming and changes in drought. *Nature Climate Change* 4: 17-22.

According to Trenberth *et al.* (2014), "several recently published studies have produced apparently conflicting results of how drought is changing under climate change," and they say "the reason is thought to lie in the formulation of the Palmer Drought Severity Index (PDSI) and the data sets used to determine the evapotranspiration component." Against this backdrop, this international research team set out to make "an assessment of the issues with the PDSI." But in doing so, they also discovered "several other sources of discrepancy," including "how precipitation has changed and is analyzed." More specifically, the seven scientists - hailing from France, Saudi Arabia, the Netherlands, the United States and the United Kingdom - discovered that (1) "uncertainties have not always been adequately appreciated," (2) "the PDSI model itself contains uncertainties," (3) "there remain substantial issues on how to best deal with changes in evapotranspiration," (4) "what is more surprising, and disappointing, are the disparities between precipitation data sets," (5) "the general availability of precipitation data and differences in the primary precipitation data sets continue to be a concern," and (6) "the other major issue is the role of natural variability, especially ENSO, which biases the land precipitation towards wetter conditions, and with less drought globally under La Niña conditions."

In light of these several observations, Trenberth *et al.* ultimately conclude "it is probably not possible to determine reliable decadal and longer-term trends in drought due to climate change without first accounting for the effects of ENSO and the Pacific Decadal Oscillation," the former of which phenomena they describe as "the most common source of episodic droughts around the world." Thus, it would appear there are still *numerous significant problems* that need to be resolved before the desired results can be obtained. And until this occurs, drought predictions should be looked at with a very jaundiced eye.

<http://www.nipccreport.org/articles/2014/jul/1jul2014a2.html>

F. WINTER IN SUMMERTIME DUE TO POLAR VORTEX

The Arctic polar vortex has moved south and is causing cold air out of the Arctic to move south and hot air from the Gulf to move north. The polar vortex has caused a low to form which is making the air streams to circulate. Go to:

<http://earth.nullschool.net/#current/wind/isobaric/850hPa/orthographic=-101.19,62.22,260>

Note the vortex about the center of the US-Canadian border. Then note the wind circulations.

The cold air will reach at least to Dallas and perhaps on into the Houston area.

This is Mother Nature at work, exchanging hot air for cold air in accordance with the laws of thermodynamics. Normally it is done with ocean water but once in awhile the air acts as a heat transfer agent.

J Frank

G. GLOBAL WARMING INTERACTIVE: HOW HOT WILL YOUR CITY GET?

Type in your town in the box below and find out what summer could feel like if climate change continues unabated.

David Sassoon

<http://insideclimatenews.org/carbon-copy/20140710/global-warming-interactive-how-hot-will-your-city-get>

Editor's Note: Satellite temperature measurements show no substantial global climate temperature increase in the past 17 years. GHH

H. THE EPA NOW "TRYING" TO GARNISH CITIZENS' WAGES

Friday, July 4th, 2014



On the day we celebrate our liberties, it is ironic — and troubling — that the EPA is attempting to get the authority to garnish the wages of citizens if they are fined for violating EPA regulations.

As described in [this article](#), just the building of a pond on your property that did not get approval from all of the federal agencies who want to interfere with your personal property rights could lead to the government garnishing your wages. No appeal or due process if you want to challenge the EPA's decision.

It doesn't matter if the local wildlife loves your new pond. The government can demand you destroy it...or else.

Roy Spencer

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

Editor's Note: "The [Environmental Protection Agency](#) has quietly floated a rule claiming authority to bypass the courts and unilaterally garnish paychecks of those accused of violating its rules, a power currently used by agencies such as the Internal Revenue Service. The [EPA](#) has been flexing its regulatory muscle under President Obama, collecting more fines each year and hitting individuals with costly penalties for violating environmental rules, including recently slapping a \$75,000 fine on Wyoming homeowner Andy Johnson for building a pond on his rural property.

“The [EPA](#) has a history of overreaching its authority. It seems like once again the [EPA](#) is trying to take power it doesn’t have away from American citizens,” Sen. John Barrasso, Wyoming Republican, said when he learned of the [EPA](#)’s wage garnishment scheme. Others questioned why the [EPA](#) decided to strengthen its collection muscle at this time. Critics said the threat of garnishing wages would be a powerful incentive for people to agree to expensive settlements rather than fight [EPA](#) charges. We need to comment negatively by 1 Aug. 2014.

<https://www.federalregister.gov/articles/2014/07/02/2014-15578/administrative-wage-garnishment>



Don Shaw

I. CORRUPTION OF ACADEMIC JOURNALS FOR PROFIT AND CLIMATE CHANGE PROPAGANDA

Posted on [July 12, 2014](#) by [Guest Blogger](#)

Opinion by Dr. Tim Ball

Everything you read in newspapers is absolutely true, except for the rare story of which you happen to have first-hand knowledge. – Erwin Knoll

The man who reads nothing at all is better educated than the man who reads nothing but newspapers. – Thomas Jefferson

CRU and Academic Publishing

Recent [revelation of extensive corruption](#) of the peer review process, by a group of academics, is another blow to academic credibility. Commendable in the tawdry story was the reaction of the publisher of the *Journal of Vibration and Control* (JVC); they immediately withdrew 60 articles. But what happens when the publisher is part of the schemes to pervert the proper scientific checks and balances? How many other corrupted publishing stories are there? How many with or without knowledge of the publisher? Probably many, as the iceberg analogy almost always applies.

<http://wattsupwiththat.com/2014/07/12/corruption-of-academic-journals-for-profit-and-climate-change-propaganda/#more-112858>

J. NINTH INTERNATIONAL CLIMATE CHANGE CONFERENCE (ICCC-9)

The conference, July 7-9, 2014, in Las Vegas, included many interesting topics. The URL below provides videos of the presentations

<http://climateconference.heartland.org/>

K. COLDEST ANTARCTIC JUNE EVER RECORDED

Posted on [July 12, 2014](#) by [Anthony Watts](#)

Story submitted by Eric Worrall

Antarctica continues to defy the global warming script, with a report from Meteo France, that June this year was the coldest Antarctic June ever recorded, at the French Antarctic Dumont d'Urville Station.

According to the press release, during June this year, the average temperature was -22.4c (-8.3F), 6.6c (11.9F) lower than normal. This is the coldest June ever recorded at the station, and almost the coldest monthly average ever – only September 1953 was colder, with a recorded average temperature of -23.5c (-10.3F).

June this year also broke the June daily minimum temperature record, with a new record low of -34.9c (-30.8F).

Other unusual features of the June temperature record are an unusual excess of sunlight hours (11.8 hours rather than the normal 7.4 hours), and unusually light wind conditions.

Dumont d'Urville Station has experienced ongoing activity since 1956. According to the Meteo France record, there is no other weather station for 1000km in any direction.

<https://translate.google.com/translate?u=http%3A%2F%2Fwww.meteofrance.fr%2Fweb%2Fcomprendre-la-meteo%2Factualites%3FarticleId%3D8990197>

L. RENEWABLE POWER MANDATES ARE DRIVING UP ELECTRICITY PRICES IN A MANNER THAT MAY BE IRREVERSIBLE, A LOS ANGELES TIMES INVESTIGATION FOUND.

Restrictions on coal-fired power plants are adding to the electricity sticker shock and threatening the reliability of the electricity supply, the *Times* reported.

<http://news.heartland.org/newspaper-article/2014/06/08/los-angeles-times-renewable-mandates-driving-electricity-prices>

M. CALIFORNIA SEN. DIANNE FEINSTEIN CALLED OUT ENVIRONMENTAL ACTIVIST GROUPS WHO OPPOSE MAKING ADDITIONAL WATER RESOURCES AVAILABLE TO CALIFORNIA FARMERS AND RURAL COMMUNITIES TRYING TO COPE WITH A SEVERE DROUGHT.

Feinstein said environmental activist groups have “never been helpful” in producing good water policy.

<http://news.heartland.org/newspaper-article/2014/06/05/feinstein-says-environmental-activists-have-never-been-helpful-water-po>

N. LATEST NOAA MEAN SEA LEVEL TREND DATA THROUGH 2013 CONFIRMS LACK OF SEA LEVEL RISE ACCELERATION

Posted on [July 16, 2014](#) by [Guest Blogger](#)

UN IPCC AR5 WGI claims of increasing rates of sea level rise from 1971 to 2010 are unsupported

Guest essay by Larry Hamlin

NOAA has released new and updated mean sea level trend data for it’s Global Network Stations tide gauge locations which are inclusive of measurement data through 2013 (1),(2).

The data include long time period duration (in excess of 30 years) tide gauge station records covering the Hawaiian Islands, Alaska and the Pacific, Gulf Coast and Atlantic coastline regions of the U.S. as well as many other global wide coastal locations. This latest NOAA data shows unchanging linear trends in the rate of sea level rise worldwide with many of these records including 100 year and longer measurement duration periods.

The UN IPCC AR5 WG1 report claims that:

<http://wattsupwiththat.com/2014/07/16/latest-noaa-mean-sea-level-trend-data-through-2013-confirms-lack-of-sea-level-rise-acceleration-2/#more-113056>

Regards

George