

ClearStack Power, LLC response to:

ENVIRONMENTAL PROTECTION AGENCY

EPA-HQ-OAR-2013-0495

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**Standards of Performance for Greenhouse Gas Emissions from New Stationary Sources:
Electric Utility Generating Units**

Why is the EPA issuing this proposed rule?

“EPA states that greenhouse gas (GHG) pollution threatens the American public’s health and welfare by contributing to long lasting changes in our climate that can have a range of negative effects on human health and the environment (**clearly a false statement**). The impacts could include: longer, more intense and more frequent heat waves; more intense precipitation events and storm surges; less precipitation and more prolonged drought in the West and Southwest; more fires and insect pest outbreaks in American forests, especially in the West; and increased ground level ozone pollution, otherwise known as smog, which has been linked to asthma and premature death. Health risks from climate change are especially serious for children, the elderly and those with heart and respiratory problems. The U.S. Supreme Court ruled that GHGs meet the definition of “air pollutant” in the Clean Air Act (CAA), and this decision clarified that the CAA’s authorities and requirements apply to GHG emissions. Unlike most other air pollutants, GHGs may persist in the atmosphere from decades to millennia, depending on the specific greenhouse gas. This special characteristic makes it crucial to take initial steps now to limit GHG emissions from fossil fuel-fired power plants, specifically emissions of CO₂, since they are the nation’s largest sources of carbon pollution. This rule will ensure that the next generation of fossil fuel-fired power plants in this country will use modern technologies that limit harmful carbon pollution.”

The term “Greenhouse Gas” is a misnomer that is used by pseudo-scientists trying to make average people pay more for their electric power from the “non-green” energy sources they want to cash in on; solar, wind turbines and hydroelectric plants – nothing green about these technologies!

All atmospheric gases and dust cool the earth because the same insulating atmosphere reflects more incoming energy from the sun (1367 watts/m²) back to outer space than is reflected from the atmosphere back to earth (342 watts/m²); clearly the overall effect is cooling – not warming!

Carbon dioxide is necessary for photosynthesis so that plants can grow and provide animals, like man with oxygen - it is not a pollutant! $6\text{H}_2\text{O} + 6\text{CO}_2 = \text{C}_6\text{H}_{12}\text{O}_6 + 6\text{O}_2\uparrow$ is also a heat absorbing reaction; 9,000 Btu is absorbed from the sun for every pound of biomass formed. Does EPA take this into consideration? No!

Any scientist can see that carbon dioxide (CO₂) has little to no effect on the earth’s temperature, Figure 1. For those of you who have never analyzed data, if there were a strong connection, as CO₂ increases so should temperature but that is not seen. Although both water vapor and CO₂ are cooling, the concentration of CO₂ in the atmosphere is so small (< 400 ppm), the cooling effect could not be measured.

Man-made CO₂ at only 2.9% is insignificant compared to nature’s emissions, Table 1. World-wide, if we had eliminated the amount of man-made CO₂ in January 2008 ($0.029 \times 384 = \sim 11.14$ ppm) we would have gone back to the concentration seen in January 2003 when it was some 0.4° C warmer than it was in January 2008 (Figure1).

Monthly Hadley and MSU Temperatures vs Carbon Dioxide

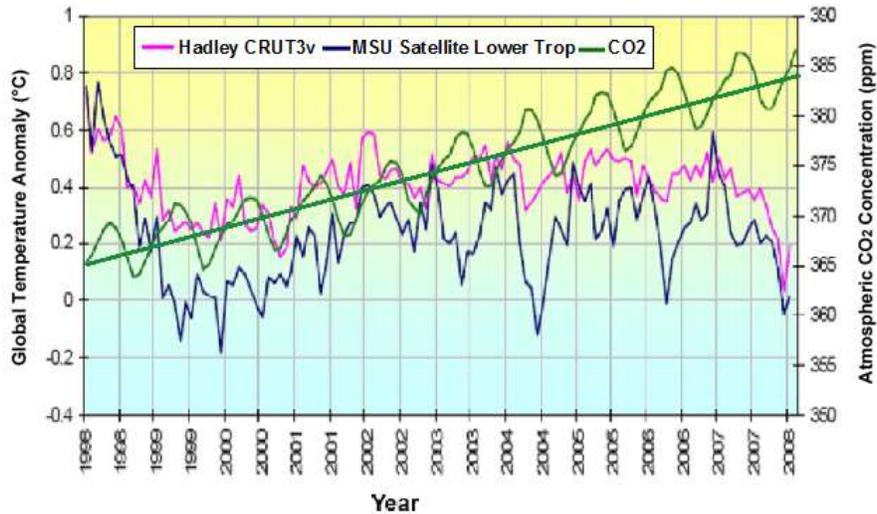


Figure 1. Real Data Shows No Correlation of CO₂ with Earth Temperature. ⁽¹⁾

TABLE 1. GLOBAL SOURCES AND ABSORPTION OF CARBON DIOXIDE ⁽²⁾

Carbon Dioxide:	Natural	Human Made	Total	Absorption
Annual Million Metric Tons	770,000	23,100	793,100	781,400
% of Total	97.1%	2.9%	100%	98.5%

CO₂ in the atmosphere varies with the growing seasons (see Figure 1). **Therefore CO₂ can be seen to be diminished rapidly; it doesn't stay for decades as EPA states.** Further of all CO₂ emitted to the atmosphere, the IPCC shows that nature absorbs 98.5% of it; so nature already has its own built-in mechanism to control the level of CO₂ in the atmosphere.

The US EPA trying to regulate man-made CO₂ is orders of magnitude beyond stupid. The man-made CO₂ that was generated in the United States in 2010 that contributed to global CO₂ concentration was 16.4% of the worldwide man-made total and that calculates to be $(390 \times 0.029 \times 0.164) = 1.9$ ppm and that is if you eliminated all of the CO₂ in the U.S., but that which is to be regulated will probably have the effect of **maybe reducing CO₂ emissions in the atmosphere by 0.25 ppm or so – a good reason to destroy coal companies and America's economy?** The CO₂ release from Medieval warming (800 year lag time) has caused CO₂ in the atmosphere to rise some 2 ppm per year from 1998 to 2008 from decreasing the ocean solubility as the oceans slowly warm. Why it takes this long to warm the oceans is a question but historically this has been the case.

In case the EPA has not investigated this either. If carbon dioxide in the atmosphere increases; the rate of plant growth increases as well, see Figure 2. If the CO₂ level in the atmosphere increases from 385 to 535 ppm (139% increase), plant growth would increase 150%. If the CO₂ slightly more than doubled (217%), plant growth would increase some 450%. CO₂ is actually the "food" that sustains essentially all plants on the face of the earth, as well as those in the sea. The more CO₂ they absorb from the air or water, the bigger and better they grow. Nature regulates CO₂ in this way.



Figure 2. Plant growth versus CO₂ Concentration. ⁽³⁾

There is very strong evidence that emissions of man-made chlorofluorocarbons (CFCs) were the only cause of near recent warming. CFCs were used as refrigerants, propellants for aerosols, for foamed plastics, and as solvents for dry cleaning and degreasing. Acting in accord with an International Treaty called the Montreal Protocol (1987); the U.S. Environmental Protection Agency (EPA) mandated the phase-out of CFCs (R-22) through the Clean Air Act. **The EPA must be very forgetful as to why they did this.**

Chlorofluorocarbons (CFCs) created both unnatural atmospheric cooling and warming based on these facts. CFCs destroyed ozone in the lower stratosphere-upper troposphere causing this zone in the atmosphere to cool 1.37° C from 1966 to 1998. The ozone loss allowed more UV light to pass through the stratosphere at a sufficient rate to warm the lower troposphere plus 10" of the earth and oceans by 0.48° C (1966 to 1998). I did this analysis in 2009; published in Hydrocarbon Processing.

The effect of banning CFC production started having its effect around 2002. Since 2002 there has been no additional warming, see Figure 3.

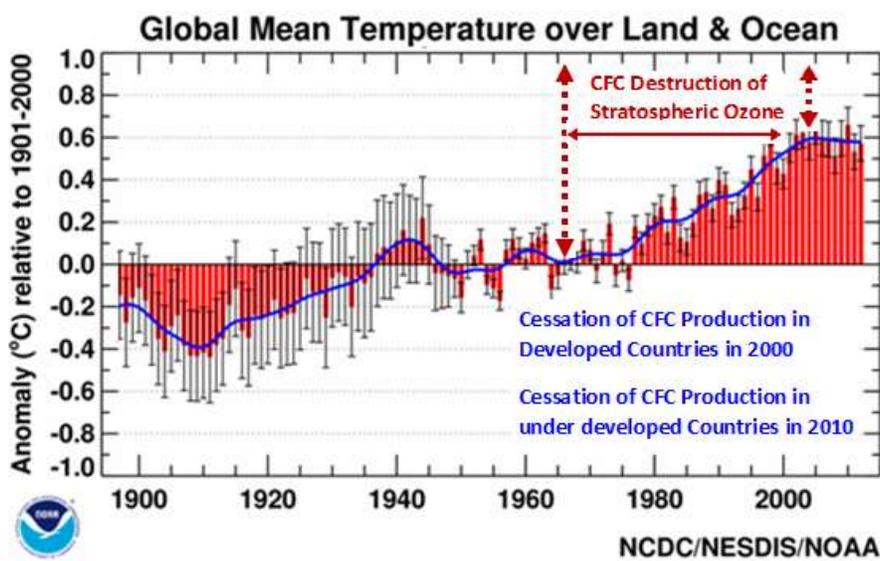


Figure 3. Global Mean Temperature, 1901 to 2010. ⁽⁴⁾

University of Alaska scientists estimated that one CFC atom could destroy 100,000 ozone molecules over its life in the stratosphere. With less ozone in the stratosphere, more UV rays hit earth, warming it up. The warming of the stratosphere is caused by the reaction of ultraviolet light with ozone. Energy is absorbed and ozone (O_3) converts to diatomic (O_2) and (O) nascent oxygen. Conversely, ozone loss decreases the amount of UV light absorbed and thus causes the stratosphere to cool, and the earth to warm. Figure 4 shows the lowest value of yearly ozone measured by TOMS (Total Ozone Mapping Spectrometer), a satellite instrument used to determine ozone level in Dobson units (relates to the number of ozone molecules per cm^2 earth surface).

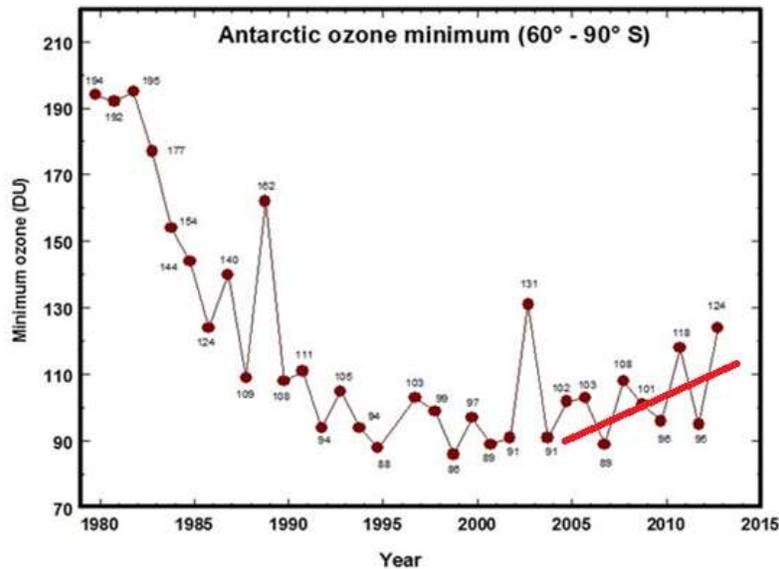


Figure 4. Antarctic ozone concentration over time. ⁽⁵⁾

CFCs in the stratosphere have begun a slow decline after reaching a peak in the mid-1990s. The slow reduction is the result of the Montreal Protocol of 1987 and later amendments.⁽⁶⁾ CFC production ceased in developed countries in 2000 and was stopped in underdeveloped countries in 2010. The decline is now about 1% per year and the ozone is increasing slightly in the stratosphere. By around 2100 the ozone should be back to the levels that were seen in 1960 (~ 300 ppm) before CFC destruction started. Ozone in the years 1994 and 2002 were higher in the ozone hole because of unusually high temperatures due to more interaction with air outside of the Antarctic region in those years.

I am an old chemical engineer who has analyzed data my whole life and analyzing the effect of CO_2 and CFCs on the atmosphere was fairly easy. Truth in science is very important; without it our world is in deep trouble. Please do not try to destroy the coal industry and the jobs it has created with this CO_2 scam. Eventually the EPA, including Lisa Jackson, Gina McCarthy and President Obama will be held accountable when people finally wake up to the truth about **climate change – the greatest scientific scam in history!**

Kindest Regards,

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