

Letter to the Editor of Engineering Dimensions:

I am troubled by the number of engineers who persist in denying climate science. Multiple independent surveys have found that 97% of climate scientists (i.e. scientists from any field who publish papers about the climate) are in agreement that humans are causing global warming. This conclusion has been endorsed by all national academies of science, from the United States to the Vatican. To contradict this consensus implies that scientists are guilty of either pervasive incompetence or a global conspiracy. Either option is absurd.

The conspiracy theorists have utterly failed to provide any evidence for their allegation. Their best effort, the “climategate” emails, were reviewed by multi-disciplinary panels of academics and found innocent. Out of this massive trove of hacked emails, a thorough search for incriminating quotes found nothing but few offhanded comments. Even those had to be presented out of context in order to create the appearance of impropriety. If this is a conspiracy, you have to wonder how it maintains tighter security than the US government.

The other view, that the world's scientists need to be rescued from a collective delusion, is incredibly arrogant. Frank Gue's letter in the July/August issue brags about our B.Sc.'s before declaring that global warming has ceased and other nonsense. Aside from ignoring the warming of the deep oceans, he dismisses the work of Ph.D.'s with decades of experience studying the climate. Credentials do not prove that someone is right, but academic work does merit a careful review before it is denigrated. And yet I find engineers scoffing at the IPCC reports while refusing to read them. Engineers who trust angry blogs over peer-reviewed journals. At best, they affirm an undue faith in obscure scientists who have been unable to gather any peer support for their fringe views. This is not critical thinking; this is the conceit of crackpots.

No engineered byproduct, not even nuclear waste, has the potential to cause as much harm to the public as greenhouse gases. This has to trigger our code of ethics. Contrarians may privately support the Flat Earth Society if they wish, but not in a professional capacity. When we identify ourselves as professionals and provide advice to the public, it must be based on the best available science. Any engineer who publicly opposes climate science should be called to explain themselves before the PEO's discipline committee.

I would even argue that engineers have an ethical obligation to refuse work on systems of fossil combustion. We should be walking away from natural gas plants and putting our skills to use in hydroelectric projects. We should stop specifying boilers or furnaces for buildings, and insist on passive heating and cooling, supplemented by heat pumps. We should declare internal combustion engines obsolete and design electric cars instead. We need to study that hydrogen-powered B-57 jet designed by our American colleagues in 1956, and stun the world by proposing a new line of carbon-neutral airliners. Our code of ethics demands that we take leadership of this progress.

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