Dourson

Q. Do you agree that the tobacco industry manipulated and obfuscated scientific research into the dangers of smoking for decades. Why or why not?

A: I do not have firsthand knowledge to comment.

Q. EPA Administrator Pruitt recently told CNBC that "I would not agree that [carbon dioxide's] a primary contributor to the global warming that we see." Based on the scientific findings from experts such as NOAA and statements on EPA's website, including "Carbon dioxide is the primary greenhouse gas that is contributing to recent climate change," Politifact determined that statement to be false. Do you agree with Administrator Pruitt or scientific experts regarding whether carbon dioxide is the primary greenhouse gas that is contributing to climate change?

A: Climate science is outside my area of expertise and I would need further information before responding to this question.

Q. Do you believe hydrofluorocarbons are greenhouse gases? What is the global warming potential of methane, and from what source does that number come?

A: I am not sufficiently familiar with the definition of greenhouse gases and do not have the expertise to answer these questions.

Wehrum

Q. EPA Administrator Pruitt recently told CNBC that "I would not agree that [carbon dioxide's] a primary contributor to the global warming that we see." Based on the scientific findings from experts such as NOAA and statements on EPA's website, including "Carbon dioxide is the primary greenhouse gas that is contributing to recent climate change,"

Politifact determined that statement to be false. Do you agree with Administrator Pruitt or scientific experts regarding whether carbon dioxide is the primary greenhouse gas that is contributing to climate change?

A: I believe the degree to which manmade GHG emissions are contributing to climate change has not been conclusively determined.

Q. In 2009, as mandated by the Supreme Court and backed by a robust scientific and technical review, the Environmental Protection Agency produced the Endangerment and Cause or Contribute Findings for Greenhouse Gases (GHGs) under Section 202(a) of the Clean Air Act. It found six greenhouse gases - carbon dioxide, methane, nitrous oxide, hydrofluorocarbons, perfluorocarbons, and sulfur hexafluoride - "taken in combination endanger both the public health and the public welfare of current and future generations."
a. Do you agree with the EPA's endangerment finding? Why or why not?
b. Do you commit to not take any steps to narrow the scope or otherwise weaken the endangerment finding?

A: I have not read the endangerment finding or the record prepared in support of the finding. Therefore, I currently do not have a view. Otherwise, I cannot prejudge any decision that might be made by EPA if I am confirmed.

Q. EPA’s independent science advisers, leading medical groups like the American Medical Association, American Academy of Pediatrics, American Thoracic Society, American Lung Association, American Heart Association, and leading public-interest groups such as the NAACP called for a 60 ppb standard instead of the 70 ppb standard EPA finalized last year.
a. What do you believe is a health-protective standard for ozone?
b. Do you agree that one of the goals of the Clean Air Act is to set

NAAQS standards to address the public health and welfare risks of NAAQS pollutants?
c. When considering setting NAAQS limits, should cost be considered?

A: I am not familiar with the current science on the health effects of ozone, so I cannot comment on your question as to the appropriate level of the standard. The US Supreme Court has ruled that cost may not be considered in determining the level of a NAAQS and that a primary standard should be set at the level "requisite" to protect public health with an adequate margin of safety. I respect the court's decision.

Q. According to the EPA, it has been estimated that the Clean Air Act has a history of reducing air pollution, while creating jobs. Since 1970 aggregate emissions of common air pollutants dropped 72 percent, while the U.S. gross domestic product grew 219 percent. Total private sector jobs increased by 101 percent over the same period. In 2020, EPA estimates that the standards will create the equivalent of over 104,000 new jobs including 17,000 new jobs building renewable energy facilities and over 78,000 jobs in improving demand-side energy efficiency.
a. Do you agree that regulations under the Clean Air Act since 1970 have helped grow the economy?
b. If not, can you provide your analysis, materials used, and people you solicited to come to this conclusion?

A: I am not familiar with the EPA analysis that produced these estimates. I believe that some, but not all, CAA-based regulations produce net benefits to the country.

Q. I found it extremely troubling that when asked about ocean acidification during your confirmation hearing, that you, a chemical engineer, said you were "aware of the allegation." The definition of "allegation" is "a claim or assertion… typically one made without proof." According to the following experts, ocean acidification is real and occurring:

National Academies of Sciences, Engineering and Medicine 2013 Review of the Federal Ocean Acidification Research and Monitoring Plan:

"The world's ocean has already experienced a 30% rise in acidity since the industrial revolution, with acidity expected to rise 100 to 150% over preindustrial levels by the end of this century. Potential consequences to marine life and also to economic activities that depend on a healthy marine ecosystem are difficult to assess and predict, but potentially devastating."

EPA 2016 Report on Climate Change Indicators in the U.S.:

"As the concentration of carbon dioxide in the atmosphere increases, the ocean absorbs more of it. Over the past 250 years, oceans have absorbed about 28% of the carbon dioxide produced by human activities that burn fossil fuels. Rising levels of carbon dioxide dissolved in the ocean negatively affect some marine life, because carbon dioxide reacts with sea water to produce carbonic acid. The increase in acidity changes the balance of minerals in the water and makes it more difficult for corals and plankton to produce the mineral calcium carbonate, which is the primary component of their hard skeletons and shells. Resulting declines in coral and plankton populations can change marine ecosystems and ultimately affect fish populations and the people who depend on them. Signs of damage are already starting to appear in certain areas.

Measurements made over the last few decades have demonstrated that ocean carbon dioxide levels have risen in response to increased carbon dioxide in the atmosphere, leading to an increase in acidity."

NOAA Ocean Acidification Program:

"Ocean acidification is occurring because our ocean is absorbing carbon dioxide from the atmosphere, leading to lower pH and greater acidity. This is causing a fundamental change in the chemistry of the ocean.

Since the industrial revolution, the atmospheric concentration of carbon dioxide has increased from 280 to over 400 parts per million due

to the burning of fossil fuels such as coal, gas, and oil, along with land use change. Ocean acidification refers to a change in ocean chemistry in response to the uptake of increasing carbon dioxide (CO2) in the atmosphere. The world's surface ocean is tightly linked with the atmosphere and absorbs huge amounts of carbon dioxide each year. This exchange, in part, helps to regulate the planet's atmospheric CO2 concentrations, but comes at a cost for the oceans and life within it; from the smallest, single celled algae to the largest whales. Were it not for ocean uptake of CO2, atmospheric CO2 levels would be increasing at an even greater rate than they are now."

NOAA Pacific Marine Environmental Laboratory Carbon Program:

"Since the beginning of the Industrial Revolution, the pH of surface ocean waters has fallen by 0.1 pH units. Since the pH scale, like the Richter scale, is logarithmic, this change represents approximately a 30% increase in acidity. Future predictions indicate that the oceans will continue to absorb carbon dioxide and become even more acidic. Estimates of future carbon dioxide levels, based on business as usual (BAU) emission scenarios, indicate that by the end of this century the surface waters of the ocean could be nearly 150% more acidic, resulting in a pH that the oceans haven't experienced for more than 20 million years."

Do you accept the findings of these experts that:

a. The human-caused increase in atmospheric carbon pollution is directly related to decreases in ocean pH (ocean acidification)?

b. Oceans are currently acidifying at a rate unprecedented in tens of millions of years?

c. Ocean acidification is damaging coral reefs worldwide, important habitats for recreation, tourism, and commercial fishing?

d. Ocean acidification is harmful to marine ecosystems, negatively affecting fish populations and the communities who depend on them?

e. If you do not agree with any of these statements, please identify the evidence, studies, or analyses you are relying upon to justify

your position.

A: Given the short schedule provided for responding to these questions, and given the substantial number of complex questions, I have not had time to review the sources to which you refer in this question.

Q. In July, the DC Circuit Court in ACE vs. EPA said, EPA can't use general waive authority to regulate supply under the RFS. Yet in the most recent proposal from EPA, EPA is proposing exactly that and is working to use general waive authority to decrease the volumes based on supply. Clearly we have billions of gallons of biodiesel and renewable diesel that qualify for the program and are ready to be produced here in the United States, in Canada and throughout the world. Isn't EPA setting itself up for another lawsuit?

A: I am not familiar with EPA's recent RFS proposals or on the Agency's view as to how they relate to the recent court decision.

Q. On September 26, the EPA issued a Notice of Data Availability that proposed to make significant, substantial changes to its proposed 2018 RVO and provided for a 15-day comment period. NODAs are generally used to provide data and supplement information in the record. In this case, the EPA has proposed to make material changes to its original proposal, offering stakeholders only 15 days to comment on something that, if adopted, would negatively impact the U.S. biodiesel industry and set the stage for unjustified reductions in perpetuity. In your experience, is this a typical use of a NODA, and can you give me another example when the EPA has used a NODA in this manner? Do you believe that 15 days is an appropriate comment period for a proposed rule under the RFS? In your opinion, is inventing a new methodology to justify a pre-determined outcome an appropriate process to apply in EPA rulemakings under the RFS?

A: I do not know why EPA decided to issue a NODA rather than a

supplemental proposal. What matters most is whether interested parties have received adequate notice of a possible rule change. I believe the NODA provided such notice. The CAA does not specify a minimum period for public comments. I know that issuing RVOs takes a lot of work and meeting the annual schedule is always a challenge. A short comment period on a set of narrow issues may be what is needed to keep this rule on schedule.

Q. Do you think there should be a standardized social cost of carbon? Is the social cost of carbon greater than zero dollars per metric ton? If so, what is the most accurate social cost of carbon in 2017 and what is the best way to calculate this number?

A: EPA develops benefits estimates for many CAA-regulated pollutants. The "social cost of carbon" is a benefits estimate and it would be consistent with EPA practice to develop such a value. I do not know enough about the underlying data to suggest an appropriate value. It is worth noting that the global scale, long lag time, and indirect nature of the effects of GHG emissions make it particularly difficult to develop a reliable benefits estimate, as compared to other CAA pollutants, which have more direct and immediate effects.

Q. In 2009, the Obama administration created an interagency working group (IWG) in an effort to create a governmental value for the social cost of carbon, which based its calculations on peer-reviewed economic models and expert opinions. The models included in their analysis were the Dynamic Integrated Climate-Economy (DICE), Policy Analysis of the Greenhouse Effect (PAGE), Climate Framework for Uncertainty, Negotiation and Distribution (FUND), and World Induced Technical Change Hybrid (WITCH)28 models. The IWG was comprised of scientists and economists from the Office of Management Budget, the Council for Environmental Quality, the National Economic Council, the EPA, the U.S. Department of Agriculture, Energy, Transportation, and Treasury.

a. Can you discuss whether you think the models used by the IWG are appropriate and credible tools for calculating the social cost of carbon?
b. Can you comment on whether the IWG was comprised of the right governmental stakeholders and actors?

A: I am not familiar with the models used by the IWG. I believe it is appropriate to be inclusive in establishing a benefits estimate for GHGs.

Q. Part of the social cost of carbon calculation assumes a value for discount rates. The IWG after reviewing past OMB guidance recommended using a 3% discount rate.
a. Do you have an opinion on what the discount rate value should be when calculating the social cost of carbon?
b. Scientific research has found that it would be more accurate to use a declining discount rate instead of a fixed one. Do you agree that a declining discount rate would be more accurate?
c. Do you have an opinion on what the discount rate value should be used for inter-generational impacts?

A: I currently do not have an opinion on the proper discount rate.