Questions for the Record

HEARING ON
The Office of Research and Development FY 2012 President's Budget
Before the
U.S. HOUSE OF REPRESENTATIVES
COMMITTEE ON SCIENCE AND TECHNOLOGY
March 10, 2011

Representative Hall

IRIS ASSESSMENT

Question: On June 15th, the EPA placed the IRIS assessments for several chemicals "on hold" citing the need to determine whether questions raised by the National Toxicology Program's review of the Ramazzini Institute's methanol study will require the Agency to revise the assessments or take additional action to verify the data used in these assessments.

a) It is my understanding that the Agency is in discussions with the National Institute of Environmental Health Sciences (NIEHS) to send an additional team of pathologists to Italy to visit the Ramazzini laboratory to conduct a full review of the chemical studies in question. Is that accurate?

Answer: EPA and NIEHS are jointly sponsoring an independent Pathology Working Group (PWG) review of selected studies on methanol, MTBE, ETBE, acrylonitrile, and vinyl chloride conducted by the Ramazzini Institute. The PWG review is currently underway and involves a team of pathologists traveling to the Ramazzini laboratory in Italy to conduct the review.

b) If so, how do you intend to conduct this review?

Answer: EPA coordinated with NIEHS to outline the issues related to the specific chemicals of concern and is co-sponsoring the effort. NIEHS is overseeing the PWG review, which was designed in accordance with standard procedures established for NIEHS's National Toxicology Program (NTP) pathology reviews.

c) What will you do to ensure that this effort is conducted in a fully transparent manner that allows for the public to comment?

Answer: EPA announced in an April 11, 2011 press release that a PWG review was being conducted, co-sponsored by NIEHS and EPA and in cooperation with the Ramazzini Institute. The PWG review is ongoing and is being conducted independently by NIEHS using standard

pathology review procedures[1]. A formal public comment period is not included in this process. EPA will publicly announce the findings of the PWG review as soon as it is completed.

d) If you are not in discussion with NIEHS, please tell me in detail what you are doing regarding the IRIS assessments that are currently on hold?

Answer: EPA continues to work closely and collaboratively with NIEHS on methanol cancer review. The non cancer assessment for methanol is not impacted by Ramazzini data and is moving forward to an independent external peer review. Based on other available data, EPA has determined that reliance on Ramazzini Institute study results is not necessary to continue with assessment development for MTBE, ETBE and acrylonitrile (EPA released for a 60 day public comment and peer review on June 30, 2011), including an assessment of cancer risks. Therefore, work on the assessments for the three chemicals will continue during the PWG review.

RAMAZZINI INSTITUTE

Question: In June 2010, EPA announced that it had "under[taken] a thorough review of all ongoing and previous chemical assessments to determine which, if any, relied substantially on cancer testing from the Ramazzini Institute," had "found four ongoing chemical assessments – on methanol, MTBE, ETBE and acrylonitrile – that rely significantly on cancer data from the Ramazzini Institute," and had "placed those assessments on hold and will determine whether the questions raised by NTP will require EPA to revise the assessments or take additional, action to verify the data used in these assessments." The TCE assessment relies substantially on Ramazzini data, both to support its conclusion that TCE is a kidney carcinogen, the endpoint that drives the cancer risk assessment, and to derive the cancer potency factor. Has EPA verified the TCE Ramazzini data? If not, why has EPA not placed the TCE assessment on hold along with the others?

Answer: In EPA's 2009 draft *Toxicological Review of Trichloroethylene (TCE)*, cancer potency estimates are based on epidemiologic data indicating that TCE increases the risk of cancer in humans. Human studies (see references below) are also the primary basis for the proposed conclusion in the draft assessment that TCE is a kidney carcinogen. EPA does not use the animal studies [e.g., Ramazzini Institute studies (Maltoni et al. 1986 and 1988)] as the primary basis for concluding that TCE is a human kidney carcinogen, or to derive the cancer potency factor in the draft assessment.

Multiple positive rodent bioassays, one of which is the "Ramazzini data," lend additional support for the human-based cancer classification and cancer potency values. The results from

[1] Standard procedures outlined in p605-608 Principles in toxicology http://books.google.com/books?id=vgHXTId8rnYC&pg=PA606&lpg=PA606&dq=pathology+working+group+procedures&source=bl&ots=1W8kjubP-d&sig=iSYelcWvpgzlxs5002MMIKUudME&hl=en&ei=naTJTdnMEafu0gGvhemZCg&sa=X&oi=book_result&ct=result&resnum=5&ved=0CDAQ6AEwBA#v=onepage&q=pathology%20working%20group%20procedures&f=false

each of the independently run rodent bioassays are similar. In other words, multiple independent studies produced similar results. Therefore, removing one of these independent supporting studies (e.g., Ramazzini) would have no effect on EPA's conclusions regarding the qualitative or quantitative assessment of cancer. EPA is not considering removing any study from the TCE assessment at this time.

References

Anttila, A; Pukkala, E; Sallmen, M; et al. (1995) Cancer incidence among Finnish workers exposed to halogenated hydrocarbons. J Occup Environ Med 37:797–806.

Axelson, O; Selden, A; Andersson, K; et al. (1994) Updated and expanded Swedish cohort study on trichloroethylene and cancer risk. J Occup Environ 36:556–562.

Boice, JD, Jr.; Marano, DE; Fryzek, JP; et al. (1999) Mortality among aircraft manufacturing workers. Occup Environ Med 56:581–597.

Greenland, S; Salvan, A; Wegman, DH; et al. (1994) A case-control study of cancer mortality at the transformer-assembly facility. Int Arch Occup Environ Health 66:49–54.

Hansen, J; Raaschou-Nielsen, O; Christensen, JM; et al. (2001) Cancer incidence among Danish workers exposed to trichloroethylene. J Occup Environ Med 43:133–139.

Morgan, RW; Kelsh, MA; Zhao, K; et al. (1998) Mortality of aerospace workers exposed to trichloroethylene. Epidemiology 9:424–431. .

Raaschou-Nielsen, O; Hansen, J; McLaughlin, JK; et al. (2003) Cancer risk among workers at Danish companies using trichloroethylene: a cohort study. Am J Epidemiol 158(12):1182–1192.

Radican, L; Blair, A; Stewart, P; et al. (2008) Mortality of aircraft maintenance workers exposed to trichloroethylene and other hydrocarbons and chemicals: extended follow-up. J Occup Environ Med 50:1306–1319.

Zhao, Y; Krishnadasan, A; Kennedy, N; et al. (2005) Estimated effects of solvents and mineral oils on cancer incidence and Mortality in a cohort of aerospace workers. Am J Ind Med 48:249–258.

Brüning, T; Pesch, B; Wiesenhütter, B; et al. (2003) Renal cell cancer risk and occupational exposure to trichloroethylene: results of a consecutive case-control study in Arnsberg, Germany. Am J Ind Med 43:274–285.

Charbotel, B; Fevotte, J; Hours, M; et al. (2006) Case-control study on renal cell cancer and occupational exposure to trichloroethylene. Part II: Epidemiological aspects. Ann Occup Hyg 50(8):777–787.

Dosemeci, M; Cocco, P; Chow, WH. (1999) Gender differences in risk of renal cell carcinoma and occupational exposures to chlorinated aliphatic hydrocarbons. Am J Ind Med 36(1):54–59.

Moore LE, Boffetta P, Karami S, Brennan P, Stewart PS, Hung R, Zaridze D, Matveev V, Janout V, Kollarova H, Bencko V et al. 2010. Occupational trichloroethylene exposure and renal carcinoma risk: evidence of genetic susceptibility by reductive metabolism gene variants. Cancer Res 70:6527-6636.

Pesch, B; Haerting, J; Ranft, U; et al.. (2000) Occupational risk factors for renal cell carcinoma: agent-specific results from a case-control study in Germany. MURC Study Group. Multicenter urothelial and renal cancer study. Int J Epidemiol 29(6):1014–1024.

Siemiatycki, J. (1991) Risk factors for cancer in the workplace. Boca Raton: CRC Press.

HALOGENATED PLATINUM COMPOUNDS

Question: The IRIS program continues to be on the GAO High Risk list. Much, but by no means all, of the GAO's stated concerns focus on the slow pace of completion of IRIS assessments. The Committee believes the Agency should improve the way it allocates its limited resources and more effectively prioritize the candidates for assessment. Please explain the process the Agency uses to prioritize candidate substances for review. Why did EPA choose to initiate an IRIS assessment of halogenated platinum compounds when there is no scientific information to conclude that there is the risk of ambient exposure?

Answer: In its solicitation for nomination of new chemicals, EPA asks the public, interagency partners, and Agency programs and regions for information to help prioritize the need for IRIS assessments. This information includes:

- potential public health impact,
- EPA statutory, regulatory, or program-specific needs,
- availability of new scientific information or methodology that might significantly change the current IRIS information,
- interest to other governmental agencies, the public or other stakeholders outside of EPA (e.g., states, tribes, local governments, environmental organizations, industries, or other IRIS users),
- availability of other scientific assessment documents that could serve as the basis for an IRIS assessment, and
- other factors such as widespread exposure or potential susceptible groups that would make the substance a high priority for assessment.

EPA then uses this information to inform the decisions on which assessments to undertake. Two of the more important pieces of information that are used to gauge whether an assessment will be placed on the IRIS agenda are EPA program and regulatory needs and the availability of Agency resources to complete an assessment.

EPA's Office of Research and Development (ORD) proceeded with an IRIS assessment of halogenated platinum compounds because EPA needed the assessment to inform its evaluation of platinum *fuel additives* for diesel engines in EPA's diesel retrofit program. EPA has posted a general statement regarding emissions from the use of platinum-based fuel additives that can be found at: http://www.epa.gov/cleandiesel/verification/verif-list.htm (PDF file is found at: http://www.epa.gov/cleandiesel/documents/420b08014.pdf). The need for the assessment of halogenated platinum salts and platinum compounds was not related to any concerns regarding emissions from catalysts commonly used on automobiles.

RELATIONSHIP OF FUTURE CSS WORK TO EXISTING IRIS WORK

Question: How will the new draft plan "Framework for an EPA Chemical Safety for Sustainability (CSS) Research Program" inform existing or pending IRIS assessments if the intent of the CSS research program is to look at chemicals in a more holistic, sustainable framework?

Answer: Once finalized, the draft CSS Framework will guide EPA's chemicals-related research activities over an approximately five-year period beginning October 2011, thus its impact on current IRIS assessments may not be large in the short term for assessments being finalized and ones which have already undergone peer review. Results from the CSS program will be used as soon as they become available and are peer reviewed. These early inputs of CSS research will inform IRIS assessments under development by elucidating mode(s)-of-action and toxicity pathway information that informs hazard and dose-response assessments. This evidence is anticipated to strengthen weight of evidence determinations in IRIS assessments under development. The CSS program will derive information coming from alternative animal species testing, high-throughput and high content data source and will be integrated with other biological measurements to inform health assessments like those contained in IRIS. We expect the CSS research program to play an important role in informing IRIS assessments in the future. As defined by an approximate 3-5 year time horizon, one of the key objectives of the CSS program is getting stakeholder involvement and buy-in for the application of these new data in assessments. The full impact of CSS on IRIS must factor in this process and the routine inclusion into assessments will realistically take a few years.

INORGANIC ARSENIC

Question: The Science Advisory Board recently concluded its review of the IRIS assessment of inorganic arsenic. The SAB noted that it was not asked to conduct a full peer review of the assessment, including EPA's calculation of the cancer risk estimate, a critical element of EPA's conclusions regarding arsenic. Why did ORD intentionally limit the scope of the SAB peer review? Why has EPA never obtained independent peer review of the cancer slope factor it asserts for arsenic?

Answer: The SAB completed, in 2007, an independent peer review of the 2005 External Review Draft Toxicological Review of Ingested Inorganic Arsenic. After revising the draft assessment and in response to comments received from external stakeholders, EPA went well beyond the normal peer review process and opted to conduct a second external peer review focused on EPA's implementation of the recommendations received from the 2007 SAB panel. In other words, the 2010 SAB panel review was a second peer review of the revisions that were made as a result of the 2007 SAB panel review. The scope of the review was discussed at the SAB face-to-face meeting on April 6-7, 2010, as well as during the chartered SAB meetings on

June 16, 2010, and November 22, 2010. The following text was contained in the Charge[2] to the 2010 SAB Arsenic Work Group (emphasis added):

> *"The goal of this focused external peer review is to evaluate EPA's implementation of the key SAB (2007) external peer review recommendations. This focused review should concentrate on EPA's Response to the SAB comments in Appendix A and* ***the corresponding revisions in the 2010 draft IRIS assessment****. Please provide specific response to the Charge below.* ***If there are recommendations for further changes or additions to the assessment, please provide specific information on how those changes could be implemented with the currently available scientific information."***

EPA completed an independent peer review of the EPA cancer modeling approach including the derivation of the oral CSF for inorganic arsenic through the Science Advisory Board (Advisory on EPA's Assessments of Carcinogenic Effects of Organic and Inorganic Arsenic[3]) in 2007. The charge (see Section A-1 of the Advisory report) presented to this 2007 SAB included five questions specific to the cancer modeling approach, including the derivation of the oral CSF. The 2007 SAB responded with several recommendations for revision and corrections to the derivation of the oral CSF contained within the EPA's 2005 External Review Draft Toxicological Review of Ingested Inorganic Arsenic.[4] EPA considered all of the conclusions and recommendations from the 2007 SAB report in preparing the current 2010 External Review Draft "Toxicological Review of Inorganic Arsenic (cancer)." We note that the oral CSF falls within the range of risk estimates developed by the National Research Council in 2001, as indicated on page 137 of the 2010 External Review Draft "Toxicological Review of Inorganic Arsenic (cancer)."

ENDOCRINE DISRUPTION SCREENING PROGRAM

Question: The EPA has proposed a second list of 134 chemicals for testing under the Endocrine Disruptor Screening Program (EDSP), which is intended to screen chemicals for their potential to interact with the human endocrine system. In publishing this list of chemicals, the EPA failed to abide by a requirement from the Office of Management and Budget that the Agency report on the actual costs and time companies have invested in the first round of testing of 67 pesticides.

With testing costs estimated to be as high as $1 million per chemical, what is the EPA doing to ensure that experience gained from the first round of testing is captured before requiring testing for the second EDSP list?

---

[2] http://yosemite.epa.gov/sab/sabproduct.nsf/C74350B789B646D4852576D900693B14/$File/ORD-NCEA+Charge+Memo+for+ARSENIC-WG+Feb+26+2010.pdf

[3] http://yosemite.epa.gov/sab/sabproduct.nsf/EADABBF40DED2A0885257308006741EF/$File/sab-07-008.pdf

[4] http://oaspub.epa.gov/eims/eimscomm.getfile?p_download_id=494513

Answer: EPA is committed to producing a full review of the EDSP Tier 1 Screening Battery to "ensure that experience gained from the first round of testing is captured." EPA is currently reviewing the public comments we received on the amendment to the original EDSP Information Collection Request. A full review of the EDSP Tier 1 Battery cannot occur until data from the first list of chemicals have been submitted and reviewed. The first sets of data from EDSP List 1 are not due until October of this year. The last due date for the submission of data from EDSP List 1 is May 2013. After submission of the data, the individual studies will be reviewed and integrated into decisions about the potential of the chemical to interact with the endocrine system. Only after completion of these chemical-by-chemical evaluations can EPA scientists most effectively evaluate the battery and coordinate a scientific peer review. The earliest timeframe for the completion of the scientific peer review would be 2014.

ENDOCRINE DISRUPTION SCREENING PROGRAM UNDER THE SAFE WATER DRINKING ACT

Question: In developing the list of chemicals for the second round of EDSP screening test orders under the Safe Drinking Water Act, the Agency must demonstrate that the chemicals "may be a contaminant in drinking water" and/or that "a substantial population must be exposed" to the chemicals. However, when it published the proposed second list of chemicals the Agency simply used the unregulated contaminant list from the third Containment Candidate List (CCL3) without conducting any effort to see if each of the chemicals on the CCL3 met the critical factors that the Agency is required to consider under the SDWA.

What is the EPA doing to ensure that EDSP testing orders are only given to the manufacturers and distributors of specific chemicals that meet the criteria for EDSP testing established under the Safe Drinking Water Act?

Answer: Section 1457 of SDWA provides that ``in addition to the substances" referred to in FFDCA section 408(p)(3)(B), ``the Administrator may provide for testing under the screening program authorized by section 408(p) of such Act, in accordance with the provisions of section 408(p) of such Act, of any other substance that may be found in sources of drinking water if the Administrator determines that a substantial population may be exposed to such substance." (42 U.S.C. 300j-17). The Agency used the third Contaminant Candidate List (CCL 3) and the list of regulated drinking water contaminants as the starting point to develop the second EDSP list because these compounds represent the priority chemicals for the Office of Water and the chemicals that are most likely to meet the criteria specified by SDWA 1457.

In developing the CCL 3, the Agency considered not only public water system occurrence data but also the occurrence data for ambient concentrations in surface and ground water, and release to the environment. The Agency believes these data are sufficient to anticipate contaminants that "may" occur in public water systems and furthermore, also represent those substances that may be found in sources of drinking water to which a substantial population may be exposed.

When the Agency published the second EDSP list in November of 2010, we encouraged the public to submit comments and information related to the inclusion and exclusion of chemicals from the second list. The Agency is in the process of reviewing the public comments and information it received on the list and will consider this information before finalizing the second list and the schedule for issuing test orders. If our evaluation of the public comments and information submitted by commenters indicate that we should reconsider the inclusion of contaminants that may not meet the SDWA 1457 criteria, we plan to make any necessary changes before finalizing the second EDSP list.

STAR PROGRAM vs OTHER FEDERAL GRANT PROGRAMS

Question: Your testimony stated that "EPA will enhance its outreach to the broader scientific community through its STAR program, which funds competitive research grants across a broad range of scientific and engineering disciplines." Does this program overlap with other scientific programs that offer research grants? If so, can you distinguish the STAR program from other federal programs?

Answer: EPA coordinates its research with other federal agencies and EPA programs through all stages of the STAR grant process to ensure we are funding unique research that meets the needs of the Agency. A number of steps are built into EPA's grant solicitation and award process that provide a high level of confidence that we are not funding research that overlaps with the missions of other federal agencies in a duplicative way:

- First, EPA chooses research topics based on projected future policy needs, current investments across the government, and available resources. When EPA pursues research in areas where other agencies have large investments, EPA consults these agencies during the solicitation development process.
- Second, EPA's collaboration with other federal agencies supporting related research ensures that roles are clearly defined and that EPA supports environmental research uniquely targeted to its science needs. For example, EPA's membership on the OSTP Intergovernmental Panel on Climate Change (IPCC) ensures that EPA's research is coordinated with the larger federal efforts in global change research.
- Third, EPA frequently involves experts from other agencies to serve on its external peer panels for reviewing grant proposals. These rigorous peer-reviews are performed by panelists from the National Science Foundation (NSF), the National Institutes of Health (NIH), and the Department of Homeland Security, (DHS) among others, and are a key part of the foundation on which excellence is achieved in all research programs.
- Finally, EPA coordinates scientific research with other agencies through informal interactions at scientific meetings and workshops and also works closely with other agencies to communicate research progress and results. For example, EPA's Nanotechnology Research Program has held research planning workshops with researchers from government, industry and academia to identify gaps in society's understanding of nanotechnology in relation to human and environmental health, and to guide EPA's research planning. In addition, EPA's Computational Toxicology Research Program has a Memorandum of Understanding with the US Department of Health and

Human Services (HHS), the National Institute of Health (NIH), the National Institutes of Environmental Health Sciences (NIEHS), the National Toxicology Program (NTP) and the US Food and Drug Administration (FDA) to study high throughput screening, toxicity pathway profiling, and biological interpretation of the research findings.

EPA's Science to Achieve Results (STAR) program was evaluated by the National Academy of Sciences (NAS) who released its findings in a report titled "The Measure of STAR." According to the report, EPA's STAR program fills a unique niche by supporting "important research that is not conducted or funded by other agencies" and is "directly relevant" to the EPA's mission to protect human health and the environment[5]. The report goes on to say that "the agency has taken effective steps to ensure that the process does not suffer from conflicts of interest" by providing a "firewall that shields the peer-review process from the influence of the project officers and staff who oversee the individual-investigator, fellowship, and center awards."

The Board of Scientific Counselors (BOSC) also reviewed EPA's STAR program and claimed that STAR fellows have made "excellent contributions in environmental science and engineering. The BOSC's review highlighted the STAR program's unique ability to perform targeted and unduplicated research: "Although other federal agencies fund a number of fellowship programs, none are dedicated exclusively to the environmental sciences and engineering." Based on this finding, the Chair of the BOSC claimed that EPA's STAR program is "clearly are of value to the Agency and the nation in helping to educate the next generation of environmental scientists and engineers."[6]

[5] The Measure of STAR: Review of the U.S. Environmental Protection Agency's Science to Achieve Results (STAR) Research Grants Program

[6] James H. Johnson, BOSC Review - http://www.epa.gov/osp/bosc/pdf/star0610ltr.pdf

Question for the Record by Representative Biggert

NATIONAL CONTINGENCY PLAN SCHEDULE

Question: I understand EPA plans to revise the National Contingency Plan (NCP) Schedule for dispersants in 2012. Can you indicate what the timeline and plans are around this revision?

Answer: EPA plans to propose revisions to the National Contingency Plan (NCP) Subpart J Product Schedule regulations by the end of this calendar year. EPA projects a publication date (in the Federal Register) of December 2011. Incorporating lessons learned from the BP Deepwater Horizon Oil Spill, EPA is developing revisions to the Subpart J regulations under the NCP that govern the Product Schedule. These regulations identify the tests and information required of product manufacturers to list dispersants and other chemical agents on the Product Schedule for use on oil spills in U.S. waters. Additional toxicity testing, toxicity thresholds, and more rigorous efficacy testing parameters are some of the priority issues being examined.

HYDRAULIC FRACTURING

Question: As you know, natural gas development in the Marcellus shale, and related debate around the process of hydraulic fracturing, have received a lot of attention. There is a lot of support for this natural gas development and making sure it is done in a manner that protects the environment – specifically – water resources. How does EPA intend to support innovative technologies that can responsibly develop this resource?

Answer: EPA fully supports the development of innovative, responsible technologies for extracting natural gas deposits. We are working with the Department of Energy (DOE), particularly the National Energy Technology Laboratory (NETL), on this issue. NETL has both experience and the lead at the Federal level to assess the efficacy and impacts of technologies related to hydraulic fracturing. This joint research includes wastewater treatment of produced and flowback waters. EPA and DOE wish to identify and assess the performance of options for wastewater treatment of produced and flowback waters.

Question: As an example, your testimony mentions "green chemistry" research. Are there potential green chemistry technologies that EPA is considering for water treatment in fracturing?

Answer: EPA's research efforts are currently focused on its hydraulic fracture study. In addition to our research efforts, through the voluntary Design for the Environment Program, EPA may work with industry to evaluate alternative fracturing fluid systems. The goal is to see if there are greener chemical combinations that are at least as effective as current fracturing fluids.

EPA GUIDANCE ON SELECTIVE CATALYTIC REDUCTION

Question: On September 29, 2010, I joined several of my colleagues in a letter to acknowledge the EPA's finding that SCR systems are vulnerable to tampering and to encourage the Agency to review the rules governing the operation of such systems.

On November 19, 2010, the Assistant Administrator for Air and Radiation responded to our letter with a letter of her own. In that correspondence, Ms. Gina McCarthy indicated that the EPA planned "to issue new [SCR] guidance by the end of the year."

To date, EPA has not acted on any new guidance. Can EPA provide any idea what their timeline might be for new SCR guidance?

Answer: Since July 2010, EPA has been reviewing comments and information submitted in response to the public workshop and drafting updated guidance. We plan to publish the guidance in the Federal Register for public comment within the next few months.

Question for the Record by Representative Neugebauer

ENSURING SCIENTIFIC INTEGRITY

Question: In my view the Environmental Protection Agency has recently imposed multiple costly regulations that have been based on unsettled science. Most notably, hundreds of scientists have opposed the science upon which the EPA based its greenhouse gas regulations. Moving forward, how will your agency ensure that research contains a variety of scientific input, including views that may diverge from the Administration's agenda?

Answer: It is essential that the EPA's scientific and technical activities are of the highest quality and credibility for the American people to have trust and confidence in EPA decisions and actions. We welcome differing views and opinions on scientific and technical matters as an important, legitimate and necessary part of the process to provide the best possible information to regulatory and policy decisions.

Regarding your specific reference to climate change science:

EPA Administrator made Lisa Jackson made the Greenhouse Gas Endangerment Finding on the basis of the science in the Intergovernmental Panel on Climate Change (IPCC) Fourth Assessment Report, the work of the United States Global Change Research Program (USGCRP), and the work of the National Academy of Sciences (NAS) National Research Council (NRC). The products from all three of these groups were peer-reviewed. These reports and peer reviews involved thousands of scientists.

Most recently, in 2010 the NAS/NRC published a report- *Advancing the Science of Climate Change* – which stated that "Climate change is occurring, is caused largely by human activities, and poses significant risks for—and in many cases is already affecting—a broad range of human and natural systems." This is only the latest report by preeminent scientists that come to the same conclusion.

The report further states: "Most of the warming over the last several decades can be attributed to human activities that release carbon dioxide (CO_2) and other heat-trapping greenhouse gases (GHGs) into the atmosphere. The burning of fossil fuels—coal, oil, and natural gas—for energy is the single largest human driver of climate change, but agriculture, forest clearing, and certain industrial activities also make significant contributions."

Further, two recent publications, looking at both surveys of scientists and the scientific literature, found that 97-98% of the climate researchers most actively publishing in the field agreed on anthropogenic climate change.[7,8] EPA is charged with making its decisions on science

[7] Anderegg, W.R.L., J.W. Prall, J. Harold, and S.H. Schneider, 2010: Expert credibility in climate change, *Proc. Natl. Acad. Sci.*, **107** (27), 12107-12109.

[8] Doran, P.T., and M.K. Zimmerman, 2009: Examining the scientific consensus on climate change, *EOS Trans. AGU*, **90** (3), 22-23.

and in using that science for the good of the public and the environment. As such, EPA relied on the vast scientific literature, from a huge number and diversity of scientists, to develop its assessment reports and ultimately inform its endangerment finding.

In addition, EPA's Technical Support Document (TSD) for the Endangerment Finding was peer reviewed and the Endangerment Finding was subject to public comment. The peer review was conducted by a panel of federal experts, including one expert from EPA, to assure consistency with the underlying assessment reports. There were two opportunities for public comment on the Endangerment Finding, once during the Advanced Notice of Proposed Rulemaking (ANPR) process and once after publication of the Proposed Finding. The public comment period for the Proposed Finding, including formal public hearings, was held after the proposal was issued but prior to the final action being developed. Public engagement was significant: over 380,000 public comments were received. EPA responded in depth to all the arguments raised within the approximately 11,000 unique and substantive comments in a comprehensive 11-volume Response to Comments document. EPA reviewed individual submitted studies that were not included in the major assessments, with an overall conclusion that the studies did not change the judgments EPA would draw based on the assessment reports. A limited number of appropriate revisions were made to the TSD in response to the public process, usually where public comments revealed that the TSD summary of the underlying assessments could be improved. These activities demonstrate that the development of EPA's Greenhouse Gas Endangerment Finding included a broad variety of scientific input, including views that were divergent from the ultimate conclusion of the Finding.

Question for the Record by Representative Johnson

E15

Question: Several U.S. ethanol associations submitted a waiver to the EPA to increase the ethanol blend up to E15 from E10. (That is a blend of 15 percent ethanol and 85 percent gasoline.) EPA has partially granted a waiver to allow manufacturers to introduce gasoline that contains greater than 10 percent ethanol and up to 15 percent ethanol (E15) for use in motor vehicles newer than model year 2001, subject to several conditions. It is the Committee's understanding that EPA is not finished with its work on this issue. What kind of research went into making the decision and what role did the Department of Energy play in conducting this research?

Answer: We based our decisions primarily on key data provided by the Department of Energy's (DOE) Catalyst Study which was designed to evaluate the long-term effects of gasoline-ethanol blends, including E15, on the durability of emissions control systems, including catalysts, used in passenger cars and light trucks to control emissions. The test fleets were designed to be reasonably representative of the national passenger vehicle fleet. They included several high sales volume vehicle models and models selected for their expected sensitivity to ethanol so that any potential problems would be more likely to become apparent. The results of the DOE study coupled with the results of other relevant test programs, including studies conducted by the Coordinating Research Council (sustaining members include the American Petroleum Institute and a group of automobile manufacturers), confirmed the Agency's engineering assessment that the changes in regulatory requirements for MY2001 and newer light-duty motor vehicles led manufacturers to design and build vehicles able to use E15 without a significant impact on the performance of light duty vehicle emissions control systems. EPA believes that the available data and information were sufficient to grant the waiver request for MY2001 and newer light-duty motor vehicles.

Question: Can you provide us with a timeline of the expected additional studies underway or planned for ethanol blends?

Answer: As discussed in the partial waiver decisions, it is our understanding that the results of additional testing conducted by the Coordinating Research Council on E10 and E20 are expected by the end of 2011. We did not believe it was necessary to await these program results to decide the waiver request for MY2001 and newer light-duty motor vehicles given the lack of documented problems in our motor vehicle compliance program, the results of the DOE Catalyst Study and other studies, and EPA's engineering assessment of vehicle emissions systems compatibility with E15. Based on this combined body of knowledge, we expect that MY2001 and newer light-duty motor vehicles will be able to operate on E15 without experiencing long-term deterioration.

Question: What is the long-term impact on our economic competitiveness?

Answer: The increased use of renewable fuels required by the RFS2 standards is expected to reduce dependence on foreign sources of crude oil and increase domestic sources of energy. We expect that the increased use of renewable fuels needed to reach the 36 billion gallons mandated by 2022 will displace a significant amount of petroleum-based gasoline and diesel fuel relative to market projections of gasoline and diesel use in the absence of the mandate. Furthermore, we expect the rule to decrease oil imports and sustain the market for U.S. agricultural products, including corn.

HYDRAULIC FRACTURING

Question: At the hearing in response to a question on the Hydraulic Fracturing Study Plan, you mentioned EPA would ensure that strong and thorough consideration would be given to all stakeholders concerns in an objective and transparent manner? You further committed to providing opportunities for input by stakeholders, including states, industry and academia about concerns after the study has been initiated.

a. Please describe how you intend to do this while maintaining scientific integrity and meeting tight time deadlines for the report.

Answer: EPA has committed to conducting the study of the potential impacts of hydraulic fracturing on drinking water resources in an objective and transparent manner. The Agency's study will be conducted under EPA's most rigorous quality assurance guidelines, which will ensure that all of the study results will be reported objectively. EPA has encouraged stakeholders to play an active role in the development of the study plan and will continue to communicate with all interested stakeholders regarding our progress.

EPA has already undertaken efforts to ensure stakeholder engagement, as well as transparency in our deliberations and implementation actions. These efforts include:

- Public meetings held in Texas, Colorado, Pennsylvania, and New York in 2010.
- Webinars and meetings with federal, state, interstate, and tribal partners during 2010.
- An e-mail inbox dedicated to receiving comments from all interested stakeholders.
- Webinars regarding the release of the draft study plan in February and March 2011
- A period for stakeholders to comment on the draft study plan to the Science Advisory Board in March 2011.We will continue to engage interested stakeholders throughout the course of the study by:
    - Providing opportunities for public comment during the SAB review process. The SAB Review Panel held public teleconferences on May 19 and 25th to discuss their draft report of the review of EPA's draft Hydraulic Fracturing Study Plan. Stakeholders were provided an opportunity to submit oral or written comments for consideration by the Panel.

- Holding additional webinars—or other forms of communication—to report on the progress of the study. Providing the public with an opportunity to comment to the SAB during their review of the 2012 and 2014 reports.

Summaries of all of these interactions can be found on EPA's website at http://water.epa.gov/type/groundwater/uic/class2/hydraulicfracturing/wells_hydroout.cfm, or on the SAB website at http://yosemite.epa.gov/sab/sabproduct.nsf/MeetingCal/153AC7DF8D2626F98525781000648075?OpenDocument.

Questions for the Record
Subcommittee on Energy and Power
Subcommittee on Environment and the Economy
Fiscal Year 2014 Environmental Protection Agency Budget
May 16, 2013

The Honorable Tim Murphy:

1: With respect to EPA and FOIA fee waiver requests, I hope you will submit for the record the value of FOIA fees waived by EPA.

Answer: The EPA, as reported in its Freedom of Information Act (FOIA) Annual Report to the Department of Justice in Fiscal Year 2012 (available online: http://www.justice.gov/oip/reports.html), spent $18,018,517 for FOIA processing. During the same period the EPA collected $385,722 which equated to 2% of the cost of the program.

The Honorable Michael C. Burgess:

1: Lisa Jackson went to the United Nations Conference on Sustainable Development, referred to as Rio+ 20. How much did we spend to send Lisa Jackson to Rio 20?

Answer: The total travel cost to send Lisa Jackson to Rio+20 was $3,831.00. This figure comes from the Administrator's travel voucher and includes airfare, hotel, per diem, etc.

The total cost to send Lisa Jackson and support staff to Rio +20 was $43,806.00. This number includes costs for Lisa Jackson, two staff from the Administrator's Office, one security employee and two people who were on the advance team for a total of six people traveling. The total trip budget is made up of the following:

Administrator and Staff Expenses for Rio + 20 Conference	
Travel costs (airfare, per diem, hotel, airport expediting fees, etc) for Lisa Jackson and 2 EPA staff	$12,127.00
Ground transport for armored (1) and non-armored (3) vehicles including drivers' time	$18,742.00
Travel costs for security (1 person) and advance staff (2 people)	$12,937.00
Total Cost	**$43,806.00**

The Honorable Bill Cassidy:

1: In October of 2011 the EPA Office of Underground Storage Tanks announced a proposed revision to the 1988 Federal Underground Storage Tank regulation, and industry stakeholders along with Petroleum Marketers Association of America submitted comments. EPA estimated the compliance costs to be about $900 per year per facility while the petroleum marketers and others estimate true costs to be $6,100 per year. Now, of course, this concerns them, and they are requesting that the EPA withdraw the proposed rule, which is to be finalized in October of 2013, this year, and form a small business regulatory advisory panel to determine the true compllance costs. They tell me a letter was received from EPA, and the letter did not agree to the regulatory advisory panel. What are the true compliance costs? Is EPA reluctant to form an advisory or other committee to determine the true compliance costs?

Answer: In order to determine which changes to make to the UST regulations, the EPA conducted extensive outreach to stakeholders for several years. We reached out to a variety of stakeholders including owners and operators such as the Petroleum Marketers Association of America (PMAA). We recognized that many of our stakeholders are small businesses and as a result, we made a concerted effort to avoid costly retrofits. We carefully evaluated the costs associated with the proposal and determined that they did not meet the threshold to convene an advisory panel. Before, during, and since the end of the rulemaking comment period, we have held more than 100 meetings with stakeholders. We met with all stakeholders who asked to do so, including PMAA. In order to ensure all stakeholders had an opportunity to comment on the proposal, we extended the comment period from 90 to 150 days.

The EPA takes the comments we received during the comment period, including those from PMAA, very seriously. After receiving comments, the EPA worked diligently to understand PMAA's cost information comments so that we could rigorously evaluate our cost analysis. We appreciate the detailed response from commenters and believe we fully understand the comments including the compliance costs submitted by PMAA and others. We are currently working to determine the appropriate path forward using the comments we received to help inform our decision making. Costs and benefits associated with the final rulemaking will depend on the scope and content of the final rule.

The Honorable H. Morgan Griffith:

1: In the case of the Clean Air Act, for consent decrees there is a statutory opportunity to comment before they are entered by the court. Does opportunity for public comment ever result in changes to a settlement? We are aware of only one instance involving technology and residual risk reviews for various sources where that has occurred. Can you get that information?

Answer: Public comments on proposed consent decrees and settlement agreements have resulted in changes to the terms of the final versions of those agreements. As required by section 113(g) of the Clean Air Act, the EPA provides notice in the Federal Register of proposed settlement agreements and consent decrees, and allows the public to comment on them. While the EPA does not usually receive comments on proposed settlement agreements or consent decrees, whenever it

does, the EPA evaluates them to determine whether changes to the settlement agreement or consent decree are warranted.

In response to public comment related to *Sierra Club v. EPA*, 4:09-cv-152 (N.D. CA), after the section 113(g) process and before we finalized the consent decree, we negotiated modified deadlines for proposed and final actions with regard to technology and residual risk review. That is not the only time we have done so. For example, there was also a comment in *Sierra Club v. EPA*, 1:12-cv-00013 (D.D.C.) that resulted in changes. South Carolina filed an adverse comment on a proposed consent decree regarding a proposed deadline for the EPA's action on an element of a South Carolina state implementation plan. As a result of the comment, we renegotiated the consent decree and took that deadline out of the consent decree. The modified consent decree was entered by the court on October 1, 2012.

The Honorable John D. Dingell:

1: I see that the President's fiscal year 2014 budget request for CERCLA or superfund is $33 million less than for fiscal year 2012. Can CERCLA continue to fulfill its duties and its current cleanup responsibilities and obligations without slowing down significantly because of this reduction in funding? Would you submit some additional information on that issue, please, so that we may evaluate that more adequately?

Answer: The Superfund Program's priority remains protecting the American public and reducing risk to human health and the environment by cleaning up contaminated sites. While continuing to rely on the agency's Enforcement First approach to have potentially responsible parties conduct or pay for cleanups, the Superfund Remedial program will continue to focus on completing ongoing projects and maximizing the use of site-specific special account resources. The Agency will also continue to place a priority on achieving its goals for two key environmental indicators, Human Exposure Under Control (HEUC) and Groundwater Migration Under Control (GMUC).

Many federal programs have undergone substantial reductions in the past several years to help address national budget deficits. The President's FY 2014 budget request had to make difficult choices with regard to funding EPA programs, including the Superfund Remedial program. The FY 2014 President's Budget request for the Superfund Remedial program represents a $26 million reduction from the FY 2012 Enacted level but an increase of $32 million from FY 2013 post-sequester funding levels (primarily due to the sequestration reduction of $22 million). The reductions over the last two years are having an impact on program performance throughout the cleanup pipeline leading to a cumulative reduction in the EPA's ability to fund remedial investigation/feasibility studies (RI/FSs), remedial designs (RDs), remedial actions (RAs) and ongoing long-term response actions. Based on current planning data the number of new EPA-financed construction projects that will not be funded could number as many as 40-45 by the end of FY 2014.

The Honorable Ed Whitfield:

1: A FOIA-related situation has recently come to my attention that raises questions about whether the EPA may employ a similar practice when it comes to granting timely access to public records under the FOIA process. A case in point has arisen out of Louisiana, where an advocacy group, the Louisiana Bucket Brigade (LABB), was able to gain access, through FOIA, to an EPA draft RMP inspection report of the Baton Rouge Refining Facility, within 16

days of its original FOIA request of Dec. 14, 2012 (Tracking Number: EPA-R6-2013-002185). Conversely, an industry trade association, the Louisiana Mid-Continent Oil & Gas Association (LMOGA) submitted a FOIA request (Tracking Number: EPA-R6-2013-005253) on April 8, 2013, for information related to the fulfilling of LABB's Dec. 14, 2012, FOIA request, yet as of May 20,2013 – 42 days later – its request has not been answered.

a. Given the concerns that have been raised about potential bias when it comes to FOIA fee waivers, can the EPA say with certainty that when it comes to the timeliness of processing FOIA requests that there is not a bias in favor of environmental groups over industry organizations, state or local governments?

Answer: The EPA reviewed its fee waiver decisions and determined that the Agency acted appropriately without any individual bias or partisan ideology. Individual bias or partisan ideology is not practiced by the Agency in its FOIA program, including the timeframes in which requests are answered. It is the EPA's policy to process requests on a "first in, first out" basis in programs and regions, unless a request for expedited processing has been granted. The EPA's regulations governing the FOIA process, including responses to FOIA requests, are available on its FOIA website at http://www.epa.gov/foia/.

b. Will EPA include review of FOIA response times in the agency's upcoming audit of its FOIA fee-waiver practices?

Answer: The Office of Inspector General notified the Agency's Chief Information Officer on June 19, 2013 that, in response to the request from the Acting Administrator, it would be reviewing the Agency's fee waiver process, including timeliness and equity in decision-making of these requests.

c. What protocols does the Agency currently have in place for monitoring and ensuring adequate FOIA response times in accordance with FOIA and case law?

Answer: To monitor and better ensure timeliness in responding to FOIA requests, the EPA deployed FOIAonline, its new FOIA management and records repository tool, in October 2012. FOIAonline automates most FOIA administration activities -- bringing needed efficiencies to Agency FOIA processes. FOIAonline provides automated workflows which allow staff to quickly deliver requests to the organizations that have responsive records and post those records online for public access. To increase accountability at the highest levels across the Agency, beginning in July 2013, the Agency FOIA Officer will begin providing quarterly reports on the status of FOIA requests to Agency senior leaders so that they are aware of and can address any processing delays. To ensure that Agency employees are aware of their FOIA responsibilities and know how to respond to requests, the EPA is developing online training for all FOIA personnel and employees including specialized training for managers who make decisions on the release of documents. These trainings will be mandatory and available by December 31, 2013. In addition, the EPA holds yearly training sessions for all Agency FOIA professionals. The Agency FOIA Officer holds monthly meetings with EPA FOIA Officers and FOIA Coordinators in which they receive training and guidance.

d. Is the EPA aware of any instances in which it has answered a FOIA request through the unofficial sharing of relevant documents and information in lieu of formally releasing the requested information via a publically accessible database?

Answer: The EPA's current practice is to make FOIA responses available through the FOIAonline tool where feasible. Historically, the EPA has responded to FOIA requests by sending its official responses, including any relevant documents, directly to FOIA requesters. In some instances, when the EPA determined that there would be multiple requests for the same documents or significant interest in the documents, the EPA proactively posted the documents in an electronic reading room. The Agency did not begin to post all responsive records in a database until FOIAonline was deployed in October 2012. The Agency does not usually provide records requested under FOIA when those records are in the public domain (i.e., websites, dockets, publications, etc.). The requester is informed where the records can be obtained.

2: With respect to the Clean Air Act's regional haze provisions, does EPA agree that the Clean Air Act as written and as amended gives the states, rather than the federal government and the EPA, primacy over visibility and regional haze standards? If not, please explain.

Answer: We agree that states have the initial and primary responsibility to develop regional haze plans under the Clean Air Act (CAA) and the EPA agrees that the EPA should give deference to state decisions that have followed the regional haze rule guidelines and result from a rigorous analysis of control options, control costs, and visibility impacts. The EPA has been collaborating with the states and with their regional planning organizations since 1999 on the development of regional haze plans. Our preference and practice has always been to allow states that are moving forward to complete their work, and then to give due deference to the emission control decisions that they reach based on accurate technical information. If the state has used a technically flawed assessment of costs or visibility improvement, the EPA cannot approve the state's decision and the state must revise its plan or the EPA is obligated to adopt a Federal plan. We have fully approved regional haze plans in 19 states and have approved reliance on the Cross-State Air Pollution Rule to satisfy regional haze requirements for power plants in 14 other states. We have only issued full federal plans for three states who asked us to do so. Partial federal plans (covering a small number of specific sources) where the EPA disagreed in part with the state's assessment are in place in eight states. In those instances where we have put in place a federal plan, the 2-year "clock" for the state to submit an approvable state implementation plan had already run out. We are committed to continuing to work with the states that are now subject to a federal plan on approvable revisions to their state plan to ensure that the state plans fully meet the requirements of the regional haze rule. For example, collaborative efforts between the EPA and state officials in Oklahoma and New Mexico have been successful in crafting acceptable alternatives to the federal plans that the EPA initially put in place. When a revision to a state plan is submitted to the EPA and approved, we will withdraw our federal plan.

3: EPA has proposed a regional haze regulation for the Navajo Generating Station that could require an investment of more than $1 billion with potentially no perceptible visibility improvements. In particular, a study done by the Department of Energy's National Renewable Energy Laboratory (NREL) last year concluded: "The body of research to date is inconclusive as to whether removing approximately two-thirds of the current NOx emissions from Navajo Generating Station would lead to any perceptible improvement in visibility at the Grand Canyon and other areas of concern." Does EPA reject NREL's conclusion? If yes, please explain the basis for rejecting this conclusion.

Answer: The EPA proposed a Best Available Retrofit Technology (BART) emission limit that can be achieved with the installation of selective catalytic reduction (SCR) with low-NOx burners and separated over fire air (LNB/SOFA). The proposal includes options for extended compliance schedules and a framework for other possible alternatives that stakeholders may want to offer. As stated in our proposed rulemaking, the EPA estimates the total capital costs of our proposed BART determination to be $541 million.

The EPA disagrees with NREL's conclusion on the effects of emissions from the Navajo Generating Station (NGS) on visibility at areas of concern in the region. NREL's expertise is in the power sector, including fundamental energy science, energy analysis, and validating new products for commercial markets. NREL performed no visibility modeling of their own to support their statements regarding anticipated visibility improvements. In addition to the quote cited above from the NREL study, the conclusion in the NREL report further states that resolving questions regarding visibility science requires expertise in atmospheric chemistry and air transport modeling, not power sector expertise. The National Park Service, the Federal Land Manager charged with the protection of visibility at all National Parks, has been at the forefront of visibility science since the inception of the visibility provisions of the 1977 amendments to the Clean Air Act. In a letter dated April 6, 2012 to the EPA, the National Park Service expressed its concerns regarding the inadequacy of two sections of the NREL analysis: the discussions of control technologies and visibility science. Specifically, the National Park Service stated that the NREL study makes a number of inappropriate comparisons between models and modeling results. The National Park Service further supported key inputs used in the EPA's modeling analysis. The EPA's analysis demonstrates that the installation and operation of the proposed BART controls at NGS would result in the largest visibility improvements in the nation from the control of a single stationary source.

4: The Navajo Generating Station plant is critical to the Arizona economy and jobs, and to the Central Arizona Water Project. In the proposed rule, EPA itself states that "the importance to tribes of continued operation of NGS and affordable water costs cannot be overemphasized." Is it reasonable for EPA to propose requiring the owners to spend hundreds of millions of dollars, or possibly over $1 billion, for potentially no perceptible visibility improvements? Can EPA commit that the agency will not finalize a rule that effectively forces the facility to shut down all or a significant part of its operations?

Answer: The EPA recognizes the important role of NGS to the economy of numerous Indian tribes, as well as to the broader regional and state economies. The EPA considered all information provided to us regarding the economic and employment benefits of NGS in our proposed rulemaking. As described in our proposed rule, the EPA understands that the timing of regulatory compliance is critical to the continued operation of NGS. As an alternative to the BART proposal, the EPA proposed a "better than BART" approach that provides significant additional time for compliance. Additionally, the proposed rule puts forth a framework for developing other alternatives and encourages the owners of NGS and other stakeholders to use this framework to develop other alternatives that would provide additional flexibility in the compliance timeframe. These alternatives would help assure continued operation of NGS while ensuring greater reasonable progress than BART towards the national visibility goal set by Congress in the Clean Air Act. This is consistent with the action the EPA took with the Four Corners Power Plant (http://www.epa.gov/region9/air/navajo/pdfs/four-corners-final-fact-sheet-08-06-2012.pdf).

The EPA proposed a BART emission limit that can be achieved with the installation of selective catalytic reduction (SCR) with low-NOx burners and separated overfire air (LNB/SOFA). As stated in our proposed rulemaking, the EPA estimates the total capital costs of our proposed BART determination to be $541 million. As discussed in our proposed rule, the owners of NGS installed LNB/SOFA on each unit over 2009 – 2011, at a total cost of $45 million. Therefore, the EPA estimates the cost of SCR alone to be $496 million. The EPA estimates that the total annual cost (operation and maintenance costs plus the annualized capital costs) of our proposed rule to be $64 million per year. Under the EPA's proposed BART alternative, these costs would not be incurred in full until 2023.

The analysis for our proposed rulemaking includes an affordability study that estimates the electricity generation costs of SCR compared to the costs of purchasing an equivalent amount of power on the wholesale market. The results of this analysis show that the cost of the installation and operation of SCR is less than the total cost to purchase electricity on the wholesale market from elsewhere in the West. The economic analysis conducted by NREL resulted in similar conclusions. Given the results of the EPA and NREL's economic analyses and the additional time for compliance that the EPA has proposed, we do not believe that NGS would shut down as a result of the EPA's BART determination.

As of July 26, the EPA has received approximately 40,000 comments on the proposal, as well as an alternative BART proposal from a Technical Working Group (TWG) comprised of the Department of the Interior (DOI), Salt River Project, the Navajo Nation, the Gila River Indian Community, the Environmental Defense Fund, Western Resource Advocates, and the Central Arizona Water Conservation District that follows the framework we laid out in the BART proposal. This alternative clearly represents significant work and expertise from many key stakeholders. The EPA looks forward to carefully reviewing this and any other alternative proposals that follow the framework we laid out and intends to provide sufficient opportunity for the public to review and comment on them before finalizing a BART determination for NGS.

5: Under the Montreal Protocol and Title VI of the Clean Air Act, EPA has been phasing out the consumption and production of hydrochlorofluorocarbons (HCFCs). What is EPA's timetable for proposing and promulgating rules governing HCFC allowances for the period of 2015-2019? What steps is EPA taking to ensure that the proposed rule can be completed well enough in advance of 2015 so that companies and industries can plan and operate their business accordingly?

Answer: With regard to the 2015-2019 HCFC Allocation Rule, the EPA plans to issue a proposed rule by the end of 2013 and a final rule in 2014. To ensure this rule is completed in a timely fashion, the agency has been meeting with numerous industry stakeholders over the past six months to discuss the specifics of the rule and plans to submit the proposal to the Office of Management and Budget for interagency review this summer. The proposed rule should provide the industry with significant advance notice of the agency's plans for the 2015 allocation.

6: During the FY 2014 budget hearing before the Interior Appropriations Subcommittee, you were asked about EPA's proposed order revoking the food uses for sulfuryl fluoride. As you are aware, EPA had strongly encouraged the agricultural and food production sectors to transition to sulfuryl fluoride as a substitute for methyl bromide. In your testimony, you stated that EPA is "sympathetic to the problem" created by the proposed order and acknowledged the pending legislation that would direct EPA to withdraw it. You also testified that "sulfuryl fluoride is a pretty important fumigant," "a good replacement" for

methyl bromide," and an "important tool." Does this mean that EPA is willing to work with Congress to provide certainty to the agricultural and food production sectors that they will be able to continue using sulfuryl fluoride to protect America's food supply from dangerous and destructive pest infestations?

Answer: The agency has been and remains willing to provide technical assistance to Congress on drafting legislation regarding the tolerances for sulfuryl fluoride.

7: EPA publishes hundreds of final rules each year in the Federal Register. Does EPA track the number of rules it issues each year? If yes, please provide of final rules published for each of the following years: 2009, 2010, 2011 and 2012.

Answer: The Congressional Review Act (CRA) requires an agency promulgating a rule to submit the rule to Congress and to the Government Accountability Office (GAO) before it can take effect. GAO compiles statistics on its own website about all final agency rulemakings received under the CRA at http://www.gao.gov/legal/congressact/fedrule.html. According to GAO's database, the EPA published 406, 442, 482 and 584 rules subject to the CRA in 2009, 2010, 2011 and 2012, respectively. This number includes hundreds of routine and/or frequent actions such as State Implementation Plans approvals and pesticide tolerances.

8: Does EPA track the total new compliance costs of the rules it issues each year? If yes, please provide the estimated total compliance costs for EPA rules published in 2009, 2010, 2011 and 2012.

Answer: The EPA routinely reports estimates of both benefits and costs in regulatory impact analyses prepared for each of its major rules. The Office of Management and Budget (OMB) compiles estimates of the total annual benefits and costs of major rules by Agency. The table below shows aggregate benefits and costs for the years in question, drawing on the information presented in OMB's Reports to Congress on the Benefits and Costs of Federal Regulations and Unfunded Mandates on State, Local and Tribal Entities.

It is important to note that any aggregate estimate of total costs and benefits must be highly qualified. Problems with aggregation arise due to differences in baselines and assumptions, data limitations, and inconsistencies in methodology and type of regulatory costs and benefits considered. The aggregate estimates presented combine annualized and annual numbers. Cost savings are treated as benefits. Further, the ranges presented below do not reflect the full range of uncertainty in the benefit and cost estimates for the rules. Limitations in existing information and methods prevent the quantification and monetization of relevant benefits and costs and these categories may be significant.

Total Annual Benefits and Costs of Major, EPA Rules
(in billions)

Fiscal Year	Benefits	Costs	Number of Rules
2012	$28.5 to $77.5	$8.3	3
2011	$20.5 to $59.7	$0.7	3
2010	$10.8 to $60.8	$1.9 to 3.6	6
2009	$.46 to $5.2	$.11 to 2.2	1

Note: Totals do not reflect rules promulgated jointly with other Agencies.

Source: OMB, Report to Congress on the Benefits and Costs of Federal Regulations and Unfunded Mandates on State, Local and Tribal Entities. 2013 (draft), 2012, 2011, 2010.

9: Section 321(a) of the Clean Air Act requires the EPA "conduct continuing evaluations of potential loss or shifts of employment which may result from the administration or enforcement of the provision of this Act and applicable implementation plans, including, where appropriate, investigating threatened plant closures or reductions in employment allegedly resulting from such administration or enforcement."

a. Has EPA ever conducted a study or evaluation under Section 321(a)? If yes, please describe each study or evaluation, when it was conducted, and the results of the study or evaluation.

b. Has EPA ever investigated a threatened plant closure or reduction in employment allegedly resulting from administration or enforcement of the Clean Air Act? If yes, please describe each such investigation, when it was conducted, and the results of the investigation.

Answer: Section 321 provides a mechanism for the EPA's investigation of particular claims of job loss related to plant closure or layoffs in response to environmental regulation. The EPA could not find any records of any requests for Section 321 investigations of job losses alleged to be related to regulation-induced plant closure. As a result, the EPA has not conducted any studies or evaluations under Section 321(a). Nevertheless, since 2009, the EPA has focused increased attention on consideration and, where data and methods permit, analysis of potential employment effects as part of the routine regulatory impact analyses (RIAs) conducted for each major rule.

10: In its 2010 proposed ozone rule, EPA estimated that the costs to the American manufacturing, agriculture and other sectors could reach $90 billion per year. Many have raised concerns that with such costly rules, we are driving manufacturing and agricultural production out of the U.S. to other countries with lax environmental standards.

a. In analyzing these regulations, does EPA consider the economic and environmental effects of driving manufacturing offshore to countries with little or no environmental controls?

b. If yes, please explain. If not, why not?

Answer: The EPA has found no empirical evidence that air pollution regulation has caused U.S. manufacturing to shut down domestic operations and move overseas. Of layoffs events reported to the Bureau of Labor Statistics by U.S. businesses in 2011, only 0.23% were due to Government regulation of any kind, and the rest were due to other factors like routine business cycles, company reorganizations, and weather events.[1]

More than forty years of experience with the Clean Air Act has shown that America can build its economy and create jobs while cutting pollution to protect the health of our citizens and our

[1] Bureau of Labor Statistics, Mass Layoff Statistics Program. http://www.bls.gov/mls/mlsreport1039.pdf. December 2012.

workforce. Between 1970 and 2011, the economy grew by 212 percent, while emissions of the six most common air pollutants fell by 68 percent and private sector jobs grew by 88 percent. [2]

11: When President Obama announced Executive Order 13563 in 2011, he promised "to remove outdated regulations that stifle job creation and make our economy less competitive," However, based on review of EPA's most recent retrospective review of regulations, it appears EPA has only completed review of 13 regulations. Most of the revisions appear to be minor, and one of the revisions actually increases regulation.

a. How many regulations has EPA reviewed as part of this process?

Answer: In early 2011, President Obama issued EO 13563 in coordination with his plan to create a "21st-century regulatory system" that protects public health and welfare while at the same time promoting economic growth, innovation, competitiveness and job creation. As part of this plan, the EPA reviewed existing regulations to determine which could be modified, streamlined, expanded or repealed to make our regulatory system more efficient and effective. The agency thoughtfully selected 35 actions to retrospectively review. As of our July 2013 progress report the EPA has completed 18 reviews. Our next progress report is due to OMB in January 2014

b. Is the agency continuing to take steps to eliminate outdated or unnecessary regulations? If yes, please describe the steps being taken and the regulations which have been eliminated.

Answer: Yes, the agency continues to take steps to eliminate outdated or unnecessary regulations. In addition to continuing work on the remaining actions in our plan, statutes may affirmatively require the EPA to consider specific factors in reviewing regulations or contain express limitations regarding what the Agency is prohibited from taking into account. Numerous statutory provisions require the EPA to periodically review Agency rules, including provisions in the Clean Air Act (CAA), the Clean Water Act (CWA); the Safe Drinking Water Act (SDWA); Comprehensive Environmental Response, Compensation, and Liability Act (CERCLA, or Superfund), Resource Conservation and Recovery Act (RCRA); Toxic Substances Control Act (TSCA); Marine Protection, Research, and Sanctuaries Act (MPRSA); Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA); and Emergency Planning and Community Right-to-Know Act (EPCRA). The EPA's most recent Regulatory Agenda contains information and upcoming milestones for each of our active regulatory actions, including those that are periodic reviews.

Further, the EPA has a long history of reviewing regulations and related activities at its own discretion in an effort to continually improve its protection of human health and the environment and eliminate unnecessary burden on regulatory entities. It is the Agency's ongoing responsibility to listen to regulated groups and other stakeholders; rely on the EPA's expertise and quality scientific and economic analyses; address petitions for regulatory revisions; and otherwise respond to public and internal cues that indicate when reviews are necessary.

<u>The Honorable John Shimkus</u>

---

[2] Source: U.S. Department of Commerce, U.S. Department of Transportation, U.S. Department of Labor, U.S. Census, U.S. Energy Information Administration, U.S. EPA.

1: Please provide for the record the amount spent by EPA for all testing and any other assessments and other work done by the Agency and related hydraulic fracturing at Dimock, PA; Pavillion, WY; and Parker County, TX.

Answer: An estimated $4.7 million has been spent for assessment-related activities at these sites from FY 2009 through FY 2013.

2: The President's proposed FY14 budget requests $14.1 million for the EPA, DOE, and USGS to collaborate on hydraulic fracturing. Last fiscal year, the President made the same request, bringing total proposed spending on this item to around $22 million.

a: Does this request differ from the FY 2013 request?

Answer: The $14.1 million FY 2014 request is for the same amount of resources as the total FY 2013 request. In FY 2013, the EPA spent $6.1 million to continue the Study of the Potential Impacts of Hydraulic Fracturing on Drinking Water Resources, equal to the amount provided in FY 2012.

The requests are similar though they are not identical. For example, in FY 2013 and FY 2014, the EPA requested to focus on three research areas: continuing work on drinking water study; water quality and ecological studies; and air quality studies. However, in the FY 2013 request, the EPA included potential screening for seismic risks from HF. In the FY 2014 request, this area is not part of the EPA's planned research, because it falls under the core competencies of the EPA's other Federal research partners.

b: How much are DOE and USGS budgeting for this work?

Answer: The FY 2014 request for the EPA, DOE, and USGS to collaborate on hydraulic fracturing research totals $44.7 million. The EPA is requesting $14.1 million, DOE $12.0 million, and USGS $18.6 million.

c: How much of your $14 million fracturing collaboration budget for FY 2014 is for continuing EPA's ongoing study into the potential impacts of hydraulic fracturing on groundwater?

Answer: Of the $14.1 million FY 2014 request, $6.1 million is for continuing work on the Study of the Potential Impacts of Hydraulic Fracturing on Drinking Water Resources.

d: Could you please provide for the record all the detail you have on EPA's proposed specific uses for that $14.1 million request?

Answer: The President's Budget for FY 2014 requests a total of $14.1 million for the EPA to conduct UOG research. Resources are requested in three research areas: (a) continuing work on drinking water study ($6.1 million); (b) water quality and ecological studies ($4.3 million); and (c) air quality studies ($3.8 million). These research areas are among those identified as high priority research topics as part of the tri-agency effort and represent the EPA's FY 2014 contribution to that effort.

With respect to the drinking water study, a draft report of the study results is expected to be provided to the Science Advisory Board for peer review and public comment in December 2014. FY

2015 resources will be used to revise the report, as needed, to reflect the comments received during public comment and peer review.

3: Battelle, an organization that EPA has used extensively in the past, just issued a report questioning the Agency's ability to reach meaningful conclusions using the Agency's current study plan, particularly its methodology and the retrospective case studies.

a: Are you aware of or have you seen this new Battelle report?

Answer: Yes, the EPA is aware of the Battelle report, has received copies of the report, and is currently reviewing the report.

b: If so, do you share Battelle's concerns about your hydraulic fracturing study's methodology?

Answer: The EPA continues to welcome input concerning the agency's ongoing studies of hydraulic fracturing. We are currently reviewing the Battelle report and will consider and evaluate the results and conclusions in that report.

c: Are you willing to have EPA re-evaluate the work it has done to date, including the likely scientific merit of any results that may come out of the study?

Answer: The EPA's research products, such as papers or reports, are subjected to both internal and external peer review before publication. These peer review activities are designed to ensure that data are collected, analyzed, and used appropriately and that results and conclusions are supported by the best possible science. The EPA's external peer reviews are conducted following the Agency's Science Policy Council Peer Review Handbook (USEPA 2006) and OMB Information Quality Guidelines.

As we are conducting a broad review of the literature and reference documents to inform our December 2014 draft report of results, the EPA is following guidelines set forth in US EPA (2003) A Summary of General Assessment Factors for Evaluating the Quality of Scientific and Technical Information, US EPA Science Policy Council, Washington, DC. It is expected that information included in the synthesis report will be drawn primarily from peer reviewed publications.

4: EPA is considering the issuance of Federal guidance on the use of diesel fuel in hydraulic fracturing under its Underground Injection Control program. Yet, EPA has not established that such a federal action is needed to protect underground sources of drinking water as required under section 1421(b) of the Safe Drinking Water Act. The agency has not studied the need for requiring a Class II UIC permit, nor does it appear that EPA is taking into consideration "varying geologic hydrological, or historical conditions in different State and in different areas within a State" as also required by the Act (section 1421(b)). Finally, what gap in regulation is EPA trying to address with its guidance?

Answer: Through the 2005 Energy Policy Act's amendments to the Safe Drinking Water Act (SDWA), Congress established that hydraulic fracturing operations that use diesel fuels as components of fracking fluids are subject to regulation under the Underground Injection Control (UIC) program. Through its diesel fuels hydraulic fracturing guidance, the Agency will provide its interpretations of

the 2005 statutory amendment and existing regulations as well as non-binding technical recommendations for implementing such requirements.

a: Why does the proposed guidance attempt to expand EPA's definition of "diesel fuel?"

Answer: There is no single way of defining diesel fuels accepted universally. In preparing its draft guidance, the EPA reviewed definitions from other statutes, federal programs, and industry literature, and found that many different parameters are considered by each program depending on the application. In order to enhance clarity and transparency, the EPA's draft guidance describes how the agency plans to interpret the statutory term "diesel fuels" in implementing the UIC program. As provided in the agency's draft guidance, the EPA's proposed interpretation is tightly drawn from the plain language of the statute – interpreting "diesel fuels" to mean substances with "diesel fuel" as its primary name or synonym, as found on well-recognized chemical registries.

b: What could come under that definition in the future?

Answer: The draft guidance does not limit EPA's authority to revise its interpretation of the term "diesel fuels" in the future as necessary or appropriate if new products are identified as diesel fuels.

c: Does EPA have a means or process to add new substances in the future to the definition of "diesel?"

Answer: The EPA is currently focused on reviewing the more than 97,000 public comments it received on the draft guidance and on making appropriate revisions to the guidance based on these comments. The agency will work to ensure that any revised guidance takes into account the dynamic nature of oil and gas production technologies as it defines the term "diesel fuels."

d: Are you considering revisiting the diesel fuels guidance idea? If so, will you commit to avoid an overly expansive definition?

Answer: The EPA is currently focused on reviewing the more than 97,000 public comments it received on the draft guidance and on making appropriate revisions to the guidance. Any revised guidance will reflect the public comments the EPA has received on the definition.

5: The President's proposed FY14 budget request for Leaking Underground Storage Tanks (LUST) represents a decline of 4.7 percent from the enacted level in FY12. Since LUST is funded from its own Trust Fund, rather than General Treasury monies, does the decline in request mean there is less of a need in this program area?

Answer: No, the decline in request does not mean there is less of a need in this program area. Many federal programs have undergone substantial reductions in the past several years to help address national budget deficits. The President's FY 2014 budget request had to make difficult choices with regard to funding the EPA's programs, including the LUST program. LUST funding is essential to maintaining a strong prevention and cleanup program. While the agency and states have made good progress in the LUST program, there is still significant work to be done. There are more than 80,000 confirmed releases that have not yet been cleaned up, with nearly 6,000 new releases reported each

year. In addition, the Energy Policy Act of 2005 has a mandate to inspect every tank at least once every three years – which serves a vital role in helping to ensure proper operation of USTs.

6: Pesticide registrants are willingly paying more in PRIA fees to cover a much higher percentage of the overall OPP budget. Ironically, rather than focusing on the robust scientific review of pesticides, the current EPA strategic plan suggests that the agency's goal is "to reduce pesticide use" outright-- a goal not stated in any law. Rather than focusing OPP resources on the most significant programmatic challenges and potential risks to human health, EPA is redirecting significant resources and personnel to lower risk issues like school IPM. Is EPA taxing OPP resources by prioritizing the low risk programs, while underfunding the core mission of the office which is to soundly implement statutory obligations under FIFRA, FQPA, and PRIA?

Answer: The EPA's mandate under FIFRA, as amended by FQPA and PRIA, is to ensure that pesticides, when used in accordance with the label, do not cause unreasonable adverse effects on people or the environment; FIFRA gives the agency many tools to achieve that goal. By far, the largest share of OPP's resources go toward the careful scientific review of pesticides through the registration and registration review programs to ensure that pesticides meet that standard when they are initially registered and continue to meet the standard as long as they are on the market. While these programs enable us to focus on the safety of individual pesticide products, educational programs authorized under FIFRA, like school IPM and worker safety programs, also can make important contributions to the safe and effective use of pesticides.

In addition to the registration and registration review programs, PRIA-3 Registration Service Fees also are authorized for:

- EPA staff (FTEs) who evaluate covered pesticide applications, associated tolerances and corresponding risk and benefits analyses;
- Contractors who review covered pesticide applications and corresponding risk and benefits assessments;
- Advisory committees that peer review covered pesticide assessments;
- The costs of managing information, including acquisition and maintenance of computer resources (including software) used to support necessary pesticide analyses, as well as the costs of collecting, reporting, accounting, and auditing registration service fees;
- Worker protection and applicator training and for partnership grants such as those used to facilitate the adoption of IPM practices in schools and to increase adoption of reduced risk pest management practices; and
- Reduced timeframes for decisions on reduced risk pesticides.

We have put in place accounting and management systems that ensure PRIA funds are spent only on authorized activities.

7: Your FY 14 budget request includes $60 million for an E-Enterprise effort at EPA to reduce the reporting on regulated entities and provide easier access to and use of environmental information. Will statutory changes be needed to effectuate these changes?

Answer: As background, E-Enterprise for the Environment is a major effort to transform and modernize how the EPA and its partners conduct business. It is a joint initiative of states and the EPA

to improve environmental outcomes and dramatically enhance service to the regulated community and the public by maximizing the use of advanced monitoring and information technologies, optimizing operations, and increasing transparency. This multi-year effort will allow us to reduce future costs for regulated entities and the states while giving the public access to more comprehensive, timely data about the environment.

At this time, the EPA anticipates that most of the changes to implement E-Enterprise can be made through changes to the EPA's regulations, program operations, policies, and information systems. By the end of FY2014, the EPA should know whether any statutory changes are necessary, perhaps similar to the statutory change that created E-Manifest.

a: Will EPA be building this E-Enterprise itself or, like e-manifest, contracting this work out to the private sector?

Answer: E-Enterprise includes a number of complex and simultaneous projects, including streamlining regulations, enhancing information technology systems, expanding public transparency, and improving collaboration among the EPA and the states. The EPA, in collaboration with our state partners, expects to primarily use contractors to build the information technology components of E-Enterprise. The EPA generally relies on contractors to build and operate national information systems, and this is likely to be how we build out the IT components of E-Enterprise.

b: Does EPA envision a user fee to pay for operation of this system and, if so, who will be asked to pay?

Answer: The EPA has not evaluated the need for a user fee for E-Enterprise, other than the user fee that was recently established by the new legislation creating E-Manifest which is part of E-Enterprise.

8: The President's proposed FY14 budget request suggests four criteria by which to view Agency operations, including: "fostering better relations with the regulated community." What are some things the Agency has in mind to succeed in this area?

Answer: The EPA strives to have collaborative working relationships with all stakeholders in the regulatory process. Working closely with the regulated community can lead to better programs that are more effective and efficient. To that end, continuously improving relations with members of the regulated community has been a long-standing goal of the Agency. Just a few of the general means available to the agency for collaboration with the regulated community on regulations include the notice and comment process of the Administrator Procedure Act, the Small Business Regulatory Enforcement Fairness Act and the use of public meetings related to regulations under development. In addition, like other Federal agencies, the EPA publishes a Semiannual Regulatory Agenda and an annual Regulatory Plan. These documents describe regulations currently under development or recently completed.

Over the years, the EPA has used both formal and informal processes for engaging stakeholders. For example, soon after the 1990 amendments, formal regulatory negotiations produced agreements on proposed rules to prevent toxic emissions from equipment leaks, set requirements for cleaner "reformulated" and "oxygenated" gasolines, and cut toxic emissions from steel industry coke ovens. Informal talks and consultation with advisory committees produced agreement on rules that control acid rain and phase out chlorofluorocarbons, which deplete the stratospheric ozone layer.

A recent example where the EPA's extensive stakeholder outreach led to successful rulemaking process is the EPA's and the Department of Transportation's National Highway Traffic Safety Administration's (NHTSA) joint rulemaking to develop the first National Program of harmonized standards to reduce greenhouse gas (GHG) emissions and improve fuel economy from cars and light trucks. These standards, broadly supported by stakeholders, will result in significant GHG reductions and oil savings and save consumers money at the pump. In developing the rule, the EPA met extensively with a wide range of stakeholders, including automakers, automotive suppliers, labor unions, consumer groups, environmental interest groups, state and local governments, and national security experts and veterans. The input from stakeholders was invaluable in ensuring that EPA had the most comprehensive set of data and other information possible to inform the proposals.

Another recent example of a successful rule resulting from the EPA's stakeholder outreach includes the GHG Reporting Rule. The EPA met individually with a diverse range of stakeholders to seek their input, including members of the power industry and related trade associations, vendors of air pollution control and monitoring technology, engineering firms, and regional transmission operators that distribute electric power. These discussions helped shape key provisions to minimize compliance burden and protect electricity reliability while meeting emission standards. For the GHG Reporting Rule, the EPA actively sought input from stakeholders through holding technical meetings. To date, the GHG Reporting Program has held nearly 500 outreach meetings, webinars, and public hearings. Based on stakeholder input, the EPA provided extensive website postings for every action taken and efforts to highlight public comment periods for rules, information collection requests, and other Federal Register notices. The EPA also made the electronic GHG reporting system available to the reporting community prior to finalizing and launching the software, resulting in over a thousand stakeholders providing valuable feedback.

The EPA plans to build upon these efforts to engage with stakeholders in the future to continue to develop efficient and effective regulatory processes.

9: One of the Obama Administration's new initiatives at EPA for FY 2014 is "Next Generation Compliance" and "evidence-based enforcement and compliance." What is "evidence-based" enforcement and why do you need $4 million dollars for it?

Answer: A key theme of the President's budget is using evidence and evaluation to inform our efforts and make our programs work more effectively. The Evidence-Based Enforcement and Compliance grants program will assist states in developing and implementing innovative measures for assessing the performance of enforcement and compliance programs. They also will help the states design and implement innovative enforcement tools or approaches and measure the impact of such approaches. The grants will build capacity for collecting, using, and sharing enforcement and compliance data, and for determining the most efficient and effective practices for improving compliance. Evaluation of new approaches will help to determine those most promising for potential expansion and replication.

10: As part of the "Next Generation Enforcement", EPA is requesting $2.8 million for "targeted, intelligence based" enforcement activities. From where or how does EPA intend to gather this information and in what kinds of cases will it be used?

Answer: The EPA's Criminal Enforcement program is requesting $2.8 million to enhance its ability to gather and analyze data from commercially available databases, trade associations and their resources, and unclassified databases from other federal, state, and local law enforcement partners. The request includes contractor support to link these various data streams, including the Criminal Case Reporting System, civil enforcement and compliance data and environmental permitting and licensing data, and to create a data repository for each investigation that will support advanced search and analysis tools. This will help the criminal enforcement program to better align resources on the most egregious violations of the law that have the most significant impact on human health and the environment and understand those sectors, geographic areas, or individual companies that may have consistent patterns of violations. The EPA will focus its limited investigative resources on those companies seeking an unfair competitive advantage and on those groups of companies where statutory environmental obligations are intentionally disregarded.

This funding will also provide the EPA with critical contract support in the area of evidence data management, which is increasingly more important as the Agency focuses on the initiation of the larger, more complex cases that generate the greatest deterrence impact. An investment in evidence data management, along with training, equipment, and contractor support, will allow the EPA's investigative agents to obtain and securely manage the ever growing volume of evidence, both paper and electronic, that is involved with complex criminal investigations. In turn, this capability will enable our criminal investigators to effectively take on more complex criminal investigations involving large volumes of data obtained during an investigation.

11: The President's proposed FY14 budget requests $62.7 million for the development, peer review, and finalization of risk assessments of additional TSCA work plan chemicals. How many new work plan chemicals will EPA propose in FY14? What are they?

Answer: The President's proposed FY 2014 budget request of $62.7 million is for the entire Chemical Risk Review and Reduction program. The EPA is planning to allocate $13.7 million and 44.8 FTE to the Screening and Assessing Chemicals work area in FY 2014, under which the development, peer review, and finalization of work plan chemical risk assessments is funded.

In June 2012, from the list of 83 Work Plan chemicals, the EPA identified 18 chemicals for which the Agency expected to initiate risk assessments during Fiscal Years 2013 and 2014. (http://www.epa.gov/oppt/existingchemicals/pubs/Work_Plan_Chemicals_Web_Final.pdf). In March 2013, the EPA announced the chemicals that the EPA will begin assessing in 2013, including 20 flame retardant chemicals and three non-flame retardant chemicals. Five of these chemicals were included on the list of 18 chemicals announced in June 2012 and one was from the Work Plan of 83 chemicals. Currently, the EPA expects to initiate assessments in FY 2014 for the remaining 13 chemicals identified for review in FY 2013 – FY 2014. They are:

- Five Chlorinated Hydrocarbons:
    - 1,1-Dichloroethane
    - 1,2-Dichloropropane
    - 1,2-Dichloroethane
    - trans-1-2-Dichloroethylene
    - 1,1,2-Trichloroethane
- 4-tert-Octylphenol

- Four Fragrance Chemicals:
  - Ethanone, 1-(1,2,3,4,5,6,7,8-octahydro- 2,3,8,8-tetramethyl-2-naphthalenyl)-
  - Ethanone, 1-(1,2,3,4,5,6,7,8-octahydro- 2,3,5,5-tetramethyl-2-naphthalenyl)-
  - Ethanone, 1-(1,2,3,5,6,7,8,8a-octahydro- 2,3,8,8-tetramethyl-2-naphthalenyl)-
  - Ethanone, 1-(1,2,3,4,6,7,8,8a-octahydro- 2,3,8,8-tetramethyl-2-naphthalenyl)-
- 4-sec-Butyl-2,6-di-tert-butylphenol
- 2,4,6-Tri-tert-butylphenol
- P,p'-Oxybis(benzenesulfonyl hydrazide)

12: Regarding the Endocrine Disruptor Screening Program, what percentage of chemical screens used in the program are not validated?

Answer: The U.S. Environmental Protection Agency has validated all of the eleven assays that comprise the Tier 1 screening battery. The agency has validated one of the five assays that comprise the Tier 2 tests.

a: How many more need to be validated?

Answer: Four of the Tier 2 test assays need to be validated. The FIFRA SAP held in June 25-28, 2013 was focused on receiving input from the panel on the validation effort on the four ecotoxicity tests and the next steps will involve considering the SAP recommendations, developing the test guidelines, and standard evaluation procedures. (https://federalregister.gov/a/2013-07641.)

The FIFRA SAP will prepare meeting minutes summarizing its recommendations to the Agency approximately 90 days after the June 25-28th meeting. The meeting minutes will be posted on the FIFRA SAP Web site or may be obtained from the OPP Docket or at http://www.regulations.gov.

b: How many tests are validated?

Answer: The agency has validated all eleven assays that comprise the Tier 1 screening battery. The agency has validated one of the five assays that comprise the Tier 2 tests.

c: What role is EPA ascribing to adverse effects from its screening data vs. testing data?

Answer: The Endocrine Disruptor Screening Program is a two-tiered screening and testing program. Tier 1 screening identifies chemicals that have the potential to interact with the endocrine system, while Tier 2 testing will confirm whether the chemical interacts with the endocrine system, and provide data to support a risk assessment.

While Tier 1 screening level information may provide information on some adverse effects, the study designs limit the ability to quantitatively detect effects on the endocrine system that may lead to adversity. Tier 2 testing consists of longer-term, repeat dosing, multi-generational studies that are designed to detect more subtle and sensitive adverse endocrine effects.

13: EPA's proposed budget for FY14 mentions plans to transform the enforcement and compliance program.

a: Does this mean that EPA will be restructuring its workforce?

Answer: The EPA's FY 2014 budget request continues to invest resources in high priority areas with the greatest impact on public health, while reducing resources devoted to lower priority areas. In light of current budget constraints and to make the program more efficient and effective, the EPA will continue to examine the areas most appropriate for reduction while implementing new enforcement approaches such as Next Generation Compliance.

In recent years, the enforcement program has been engaged in priority setting exercises and has offered limited Early Out / Buy Out opportunities to employees in order to realize efficiencies, ensure that the program has the necessary skill mix to implement new approaches, and continues its vigorous enforcement of the nation's environmental laws to protect public health and the environment. This restructuring of positions and use of new approaches reflects the modern era of environmental protection which increasingly relies on use of advanced monitoring technology and other tools.

The Next Generation Compliance approach includes multiple components: determining the role and use of modern monitoring technology to detect pollution problems; eliminating paper based reporting to enhance government efficiency and reduce paperwork burden; enhancing transparency so the public is aware of facility and government environmental performance; implementing innovative enforcement approaches; and structuring our regulations to be more effective and achieve higher compliance. Next Generation Compliance is fully consistent with and a key component of the agency's new E-Enterprise initiative. The wider E-Enterprise initiative aims at reducing burden on industry, improving services for the regulated community and the public, and transforming the way environmental protection work is done by the EPA, states, and Tribes in the future.

b: Are national enforcement initiatives or other criminal and civil enforcement being driven by the program offices, DOJ, or Office of Enforcement and Compliance Assurance?

Answer: The EPA's Office of Enforcement and Compliance Assurance (OECA) aggressively addresses pollution problems that make a difference in communities through vigorous civil and criminal enforcement that targets the most serious water, air and chemical hazards. In support of those efforts, OECA reevaluates its National Enforcement Initiatives every three years to assure that federal enforcement resources are focused on the most important environmental problems where noncompliance is a significant contributing factor, and where federal enforcement attention can have a significant impact.

The National Enforcement Initiatives are developed through an extensive collaborative effort involving states, the EPA Regions, our federal partners, and the public. Comments and inputs are sought through stakeholder meetings, OECA's National Program Manager's Guidance (to regions and states) and a Federal Register Notice (to solicit input on the selection of the initiatives). The EPA's criminal enforcement program identifies and investigates cases with knowing, intentional, or criminally negligent violations of our nation's environmental laws. The program focuses on cases with significant environmental and human health impacts, including death and serious injury.

After a collaborative comment process, OECA recently announced the decision to continue the current set of FY 2011-2013 National Enforcement Initiatives into FY 2014-2016. These initiatives focus on:

- Keeping Raw Sewage and Contaminated Stormwater Out of Our Nation's Waters
- Preventing Animal Waste from Contaminating Surface and Ground Waters
- Cutting Toxic Air Pollution that Affects Communities' Health
- Reducing Widespread Air Pollution from the Largest Sources, Especially the Coal-fired Utility, Cement, Glass, and Acid Sectors
- Reducing Pollution from Mineral Processing Operations
- Assuring Energy Extraction Sector Compliance with Environmental Laws

14: Does your proposed Superfund budget, include funds for starting work on any new sites? Are there any you expect to complete?

Answer: The EPA is continuing to fund Superfund projects started in prior years. The Agency places a priority on continuing to fund ongoing work to avoid demobilization and other costs associated with stopping work. Because of funding constraints, including those resulting from sequester, the EPA will only be able to fund a limited number of site assessment projects needed to determine whether a site will qualify for the National Priorities List (NPL). For sites on the NPL, the EPA will have to delay certain in-depth investigations needed to develop a cleanup remedy decision, and, where a decision has been made, not all remedy designs needed for construction projects will be funded this year. For sites ready for construction, we anticipate being only able to fund a small number of projects depending on availability of funds. As a result, by the end of Fiscal Year 2014 there may be as many as 40-45 new construction projects waiting for EPA funding. The Agency does anticipate completing remedy construction at 15 Superfund sites. The EPA will continue to focus on completing individual project phases (site assessments, investigations, designs and construction) consistent with the Integrated Cleanup Initiative (ICI) started three years ago. However the overall pace of the remedial cleanup program will continue to slow due to funding constraints.

15: EPA is seeking to justify its costly proposed 316(b) rule, which would affect more than 1,260 power plants and industrial facilities nationwide, on the basis of a public opinion survey asking "how much" a random group of individuals would be willing to pay to reduce fish losses at intakes. This willingness-to-pay approach to determining "benefits" contrasts sharply with the far more traditional approach used by EPA in its earlier 316(b) rulemakings. The earlier analyses relied on actual market prices and costs incurred by individuals, rather than hypothetical questions in a public survey. The "willingness-to-pay" or "stated preference" survey is clearly intended to increase the anticipated benefits of the proposed rule. Yet such stated preference surveys are notoriously difficult to design and implement and often are very unreliable. Using such unreliable benefit estimates will inappropriately lead to cooling water controls that are neither necessary nor cost beneficial and that will not deliver the anticipated benefits but will materially affect compliance and consumer costs. Given all these problems, is EPA going to withdraw the survey and clarify that the survey and its results are inappropriate to use in implementing the final rule?

Answer: Conventional benefits analyses are generally not able to include all monetary estimates for all categories of environmental benefits. Stated preference surveys are a tool that can address categories of benefits that would otherwise not be monetized. The EPA did receive many comments

on the stated preference survey, including both supportive and critical comments regarding the stated preference survey methodology. The EPA is working through all of the comments received and will make a determination as to the form of the final benefits analysis only after obtaining further independent professional judgment concerning the survey and suggestions for possible future improvements to the survey from the EPA's Science Advisory Board.

The Honorable Phil Gingrey

1: Each year since 2003, EPA has issued a notice to receive applications for a Critical Use Exemption (CUE) for methyl bromide under the Montreal Protocol. In announcing the final CUE allocation decisions, the agency has identified the commodities eligible to use methyl bromide under a CUE, as well as the conditions, such as the presence of weeds or plant pests that existed that supported the need for the CUE. These uses have included, for example, use by cucurbit growers, eggplant growers, pepper growers, strawberry growers, sweet potato growers, tomato growers, turfgrass producers and users, forest seedling growers and nurseries, stone fruit, table grapes, raisins, walnut and almond growers, ornamental growers, U.S. millers of rice, wheat and com products, and California handlers of walnuts, beans, dried plums, raisins, and pistachios. Since 2011, the EPA has essentially reduced or rejected the CUE applications by these user groups. It has done that despite the fact that the potential tools that EPA maintains are available in lieu of methyl bromide have not increased, but have actually decreased or faced significant regulatory challenges of their own, while the weeds or plant pest complexes continue to be a problem.

a: In view of the significant potential adverse economic and job impacts on those applicants in the agricultural and food production sectors whose applications have been rejected or had their requests substantially reduced, will EPA consider changing its approach and recognize the continuing substantial need for the product under the CUE process?

Answer: Under the Montreal Protocol on Substances that Deplete the Ozone Layer and the Clean Air Act, production and import of methyl bromide, other than for exempted uses, has been banned since 2005. The Montreal Protocol and Clean Air Act authorize critical use exemptions when the Parties to the Montreal Protocol agree that a demonstration has been made for a specific use that: there are no technically and economically feasible alternatives to methyl bromide, and further that all technically and economically feasible steps have been taken to minimize the critical use and any associated emission of methyl bromide; that methyl bromide is not available in sufficient quantity and quality from existing stocks of banked or recycled methyl bromide; and that research programs are in place to develop and deploy alternatives and substitutes to methyl bromide.

The Environmental Protection Agency (EPA), the U.S. Department of Agriculture (USDA), and the Department of State have worked with agricultural stakeholders for over a decade to ensure that we put forward the best possible annual nomination to the Parties to the Montreal Protocol, consistent with the requirements of the Montreal Protocol – a nomination that has carefully examined the impacts that would flow from not having methyl bromide and that meets the critical use criteria. We then must defend those nominations at international meetings. We have continued to look for ways to ensure we have complete, up-to-date information from growers for the nomination, and to make the nomination process more transparent. Those efforts have certainly improved our ability to

document our requests so that they are successful and we will continue to look for other means of improving the process in the future.

For 2015, the U.S. government nominated California strawberries, dried cured pork products, and fresh dates. This nomination resulted from a rigorous technical review as government partners met with agricultural stakeholders, researchers and fumigators, and evaluated data and current research to establish an internationally defensible basis for our nominations.

b: Is EPA open to receiving supplemental requests for methyl bromide, and if so, will the agency fairly and reasonably evaluate such requests?

Answer: Yes, the EPA is open to receiving and reviewing supplemental requests for methyl bromide critical uses. Supplemental requests serve as an important flexibility mechanism in the Montreal Protocol treaty's process to address changes in national circumstances or new data that affect the transition to alternatives that may have occurred since the initial nomination was submitted. The EPA will work with stakeholders to ensure that there are no technical challenges or market implications that have not been fully considered, and will explore the variety of tools available to us to address documented concerns in a timely way. If warranted by additional assessment, the U.S. government may pursue supplemental CUEs for 2015.

The Honorable Ralph M. Hall

1: It is our understanding that EPA has been enforcing the requirements of the NSPS, Subpart UUU for Calciners and Dryers in Mineral Processing Industries against foundries, despite the fact that the agency never intended to include foundries as a source category for this rule. In April 2008, EPA proposed regulatory language to specifically exempt foundries from the requirements of Subpart UUU, but has never taken final action on the proposed regulatory language. Why has EPA failed to promulgate the exemption for foundries from NSPS, Subpart UUU consistent with the original intent of the rule? When can we expect EPA to take final action on its proposal?

Answer: The New Source Performance Standards for Calciners and Dryers in the Mineral Industries, commonly referred to as NSPS Subpart UUU, applies to foundries which process industrial sand in calciners and dryers. As early as 1986, the EPA stated in the preamble to the Notice of Proposed Rulemaking that the rule "would apply to new, modified, and reconstructed calciners and dryers at mineral processing plants." In both the proposed and final rules, the EPA defined a mineral processing plant as "any facility that processes or produces any of the following minerals...." In the preamble and final rule, the EPA listed "industrial sand" as one of the listed minerals, and broadly defined the affected facility, "dryer," as "the equipment used to remove uncombined (free) water from mineral material through direct or indirect heating." Furthermore, based on our reading of the regulatory text, the EPA issued several applicability determinations, beginning in 1993, that foundries were subject to subpart UUU. As a result, where foundries process the listed mineral "industrial sand" they meet the definition of "mineral processing plant" and the "calciners and dryers" that are used by these foundries to process the industrial sand are subject to NSPS Subpart UUU.
On April 22, 2008, as part of our proposed amendments to the NSPS for Nonmetallic Mineral Processing Plants (subpart OOO), even though this is a different source category, we used this opportunity to request public comments on the applicability of subpart UUU to sand and

reclamation processes at metal foundries. The proposal also noted that the request for comments on subpart UUU is not a full NSPS review pursuant to section 111(b)(1)(B) of the Clean Air Act.

After further consideration, we decided not to take final action on the exemption for subpart UUU when we finalized the amendments to subpart OOO in 2009. Because subpart UUU deals with a different industry sector than subpart OOO, we believed that the general public did not have adequate notice of the proposed change, which we thought limited our ability to fully evaluate the issue. We further believed that this issue would most appropriately be addressed through a full review of subpart UUU. When we undertake such a review, we will ensure adequate notice and consideration of this issue.

2: Why is EPA enforcing the provisions of Subpart UUU against foundries when the agency never intended to include foundries as a source category for Subpart UUU?

Answer: The New Source Performance Standards for Calciners and Dryers in the Mineral Industries, commonly referred to as NSPS Subpart UUU, applies to foundries which process industrial sand in calciners and dryers. As early as 1986, the EPA stated in the preamble to the Notice of Proposed Rulemaking that the rule "would apply to new, modified, and reconstructed calciners and dryers at mineral processing plants." In both the proposed and final rules, the EPA defined a mineral processing plant as "any facility that processes or produces any of the following minerals...." In the preamble and final rule, the EPA listed "industrial sand" as one of the listed minerals, and broadly defined the affected facility, "dryer," as "the equipment used to remove uncombined (free) water from mineral material through direct or indirect heating." As a result, where foundries process the listed mineral "industrial sand" they meet the definition of "mineral processing plant" and the "calciners and dryers" that are used by these foundries to process the industrial sand are subject to NSPS Subpart UUU.

Consistent with the regulatory determination, the EPA is currently taking appropriate enforcement action in Region 5 for identified violations of NSPS Subpart UUU at subject foundries. The violations were identified in compliance evaluations conducted by the Region at 39 of the 138 iron and steel foundries. Although a total of eleven enforcement cases resulted from the 39 evaluations, only three of the eleven cases included violations for Subpart UUU. To remedy the currently identified Subpart UUU violations, the three affected facilities have been required to conduct additional testing. No penalties have been assessed for the NSPS Subpart UUU violations.

<u>The Honorable Joe Barton</u>

1: Gina McCarthy recently stated in her written responses to the Senate Environment and Public Works committee, "I can conceive of circumstances where EPA has disagreed with State's approach on policy grounds but did not intervene to override the state because the state met the relevant legal criteria."

a: How do you reconcile her statement with EPA's disapproval of the Texas Commission on Environmental Quality's Flexible Permit Program?

Answer: We do not agree with any suggestion that our disapproval of that program was based on disagreement with the State's policy approach. To the contrary, after carefully considering the State's submission, we concluded that the program did not meet the relevant regulatory and legal

criteria for program approval. Although the Fifth Circuit found that the record we developed in support of the disapproval was inadequate, our disapproval was based on the program's legal deficiencies, not any policy disagreements with Texas.

b: In August, 2012, the Fifth Circuit Court of Appeals vacated EPA's final rule disapproving the Texas Flexible Permit Program, finding that EPA exceeded its statutory authority in rejecting the Texas Flexible Permit Program sixteen years tardy, and had transgressed the Clean Air Act's delineated boundaries of cooperative federalism. What is the status of the remand of EPA's disapproval of the Flexible Permit Program?

Answer: We are currently engaged in discussions with Texas on this matter.

2: Gina McCarthy indicated that she believes EPA's Office of Acquisition Management was involved in the decision to force Battelle to drop their contract with the Association of Air Pollution Control Agencies (AAPCA).

a: Did EPA present an ultimatum to Battelle to terminate their contract with AAPCA? If so, please provide justification for EPA's actions. In doing so, please explain the criteria used and list any contracts between Battelle and EPA that may have been judged to present a conflict of interest.

Answer: Pursuant to the requirements of Federal and Agency Acquisition Regulation, and the terms and conditions of Battelle's contract with the EPA regarding organizational conflicts of interest, Battelle discussed the matter with Agency officials and Battelle independently determined that it needed to terminate its contract with the AAPCA. The EPA neither directed nor suggested that Battelle take that action.

b: What are the larger policy implications of prohibiting a third party contractor from entering into a contract with an environmental, multi-jurisdictional organization for purely administrative and logistical purposes?

Answer: The EPA relies heavily on private sector contractors to support the Agency's mission. The EPA has not prohibited contractors from entering into contracts with multistate organizations. However, because contractors also do work for other entities that the EPA regulates, contractors could be confronted with conflicts of interest that could impair their objectivity when performing work for the EPA and, thus, compromise the integrity of the EPA's mission.

The Honorable Lee Terry

1: Is EPA considering replacing the original impingement proposal with a more flexible approach that pre-approves multiple technology options, allows facility owners to propose alternatives to those options, and provides site-specific relief where there are de minimis impingements or entrainment impacts on fishery resources or costs of additional measures would outweigh benefits?

Answer: The EPA is working to review the comments it received on its 2011 proposed rule and 2012 Notice of Data Availability as it works to develop final standards. The EPA received significant

comments regarding ways in which the impingement mortality standard could be modified to allow site-specific variability to be taken into account, and noted these flexibilities in the June 11, 2012 Notice of Data Availability. The EPA also is considering how a de minimis provision could be added to the rule.

2: EPA's proposed 316(b) rule, EPA has not required existing facilities to retrofit "closed cycle" systems such as cooling towers or cooling ponds if the facilities do not already have such systems, because such retrofits are not generally necessary, feasible, or cost effective. At the same time, facilities that do have closed-cycle systems have long been viewed as satisfying the requirements of section 316(b). Yet in the proposed rule, EPA has defined "closed cycle" cooling much more narrowly for existing facilities than EPA did for new facilities several years ago, thereby excluding a number of facilities. And even for the facilities that qualify, EPA is still imposing new study and impingement requirements. In the final rule that is due this summer, is EPA considering a broader definition of closed-cycle cooling and measures that more fully view these facilities as compliant? In the final rule that is due this summer, is EPA considering a broader definition of closed-cycle cooling and measures that more fully view these facilities as compliant?

Answer: The EPA received significant comments on the proposed definition of closed cycle outlined in the agency's 2011 proposed standards, including comments noting areas in which the agency's 2001 definition differed from its proposed 2011 definition. The EPA intends to address these comments with the final rule.

The Honorable Tim Murphy

1: At last year's budget hearing (Feb. 2012), Administrator Jackson committed to posting notices of intent to sue and rulemaking petitions on the agency's website, and EPA has recently begun to post such notices on its website. You testified at this year's budget hearing that EPA would also begin posting those rulemaking petitions.

a. What are EPA's plans with regard to posting rulemaking petitions?

b. When and where will they be accessible on EPA's website?

c. Will EPA commit to timely updating the website to ensure public access to the rulemaking petitions received by the agency?

Answer: The EPA has made available on its website petitions for rulemaking received by the Agency since January 1, 2013. The petitions for the rulemaking web page are available at http://www2.epa.gov/aboutepa/petitions-rulemaking. Additional petitions will be added on an ongoing basis as they are received or identified.

The Honorable Robert E. Latta

1: In your testimony, you highlight the fact that supporting states' efforts as the primary implementers of environmental programs is an EPA priority. Yet, through the EPA's budget, it is very clear that the federal agency intends to have a direct role in the regulation of hydraulic fracturing, despite proven state programs, including the very successful one in my

state of Ohio under the direction of the Ohio Department of Natural Resources. Do you believe that state regulatory agencies are not capable of effectively regulating hydraulic fracturing?

Answer: The EPA recognizes that many states already have regulations in place to address hydraulic fracturing, more specifically, programs that are designed to protect underground sources of drinking water. With respect to drinking water, the 2005 Energy Policy Act's amendments to the Safe Drinking Water Act (SDWA) established that hydraulic fracturing operations using diesel fuel as a component of fracking fluids are subject to regulation under the federal Underground Injection Control (UIC) program. Under the UIC program, these wells are regulated as "Class II" wells. Based on data in the FracFocus database indicating that only 2% of hydraulic fracturing operations use diesel fuels, the application of these regulations to hydraulic fracturing operations is limited. The UIC regulations are intended to create a national minimum floor for protecting Underground Sources of Drinking Water. Many states with hydraulic fracturing operations have obtained primacy under SDWA to implement the federal program within their borders, including the Class II UIC program. The EPA fully expects that States will continue to be the primary implementer of the UIC program with respect to these wells. We continue to work closely with our State partners to ensure that shale gas resources are responsibly developed.

a: What evidence exists that would justify EPA interference in state regulated hydraulic fracturing operations?

Answer: As mentioned above, SDWA mandates regulation of underground injection, including DFHF operations; however, most States with hydraulic fracturing activities have long been approved to implement their State UIC Class II program in lieu of the EPA. We are closely collaborating with our State partners through the State Review of Oil and Natural Gas Environmental Regulations (STRONGER) and other efforts to ensure responsible development of shale gas resources and we will continue outreach with the states.

b: What is EPA's jurisdictional hook, given the Safe Drinking Water Act's exemption to regulate hydraulic fracturing?

Answer: In the 2005 Energy Policy Act, Congress revised the SDWA definition of "underground injection" to specifically exclude from UIC regulation the "underground injection of fluids or propping agents (other than diesel fuels) pursuant to hydraulic fracturing operations related to oil, gas, or geothermal production activities." (SDWA Section 1421(d)(1)(B)(ii)). Through this amendment, Congress excluded many hydraulic fracturing operations from regulation under UIC programs, but it specifically did not extend this exclusion to hydraulic fracturing operations using diesel fuels. By limiting the exclusion in this fashion, Congress made clear that hydraulic fracturing operations using diesel fuels remain subject to regulation under the UIC programs pursuant to the SDWA.

2: As you move forward on greenhouse gas emissions regulations for both new and existing sources, how will you assess the costs?

a. Will you consider the impact these regulations will have on manufacturing jobs in your cost-benefit analysis?

Answer: Since 2009, the EPA has focused increased attention on consideration and, where data and methods permit, analysis of potential employment effects as part of the routine regulatory impact analyses (RIAs) conducted for each major rule. In the RIA for the April 2012 proposed new source performance standards for new power plants, we found that projected new electricity generating units would be in compliance with the proposed standard even in the absence of the regulation. This projection is consistent with a finding of no discernible incremental effects of the proposed regulation on employment. Consistent with our standard practice, we will continue to assess potential employment effects in the context of regulatory impact analyses of our major rules.

b. Will you consider how these regulations will impact energy costs?

Answer: Yes. This analysis is a routine part of the RIA conducted for regulations impacting the energy sector. In the RIA for the April 2012 proposed new source performance standards for new power plants, we found that projected new electricity generating units would be in compliance with the proposed standard even in the absence of the regulation. This projection is consistent with a finding of no discernible incremental effects of the proposed regulation on energy costs. Consistent with our standard practice, we will continue to assess potential energy price impacts in the context of regulatory impact analyses of our major rules.

c. Do you consider hiring an employee to solely work on compliance with regulations as beneficial as hiring an employee to work within normal business operations?

Answer: Compliance activities that result from air pollution regulations address a consequence of normal business operations, and are in fact producing a real output: cleaner air and improved health. Jobs, including those in the private sector, that support the implementation of and compliance with air quality regulations contribute to the positive impact clean air programs have on the health and welfare of Americans and also on the U.S. economy by reducing the number of work days lost to air pollution-related health effects across the economy, with resulting improvements in the productivity of American workers that enhance the global competitiveness of American workers and the firms that employ them. In a March 2011 report that studied the 1990 Clean Air Act amendments and the effects of associated programs on the economy, public health, and the environment between 1990 and 2020, the EPA estimated that the benefits of these clean air programs will exceed costs by a factor of more than 30 to one in 2020.

3: Does EPA keep track of compliance costs once a rule is implemented? If not, please explain why.

Answer: The EPA conducts benefit-cost analyses of all its significant rules and regulations and strives to use the best available information to conduct its analyses. To evaluate the uncertainties related to compliance cost estimates, the EPA's National Center for Environmental Economics (NCEE) is conducting a retrospective cost study (RCS), examining selected rules as case-studies. The RCS is attempting to identify reasons for any systematic differences between the Agency's compliance cost estimates used in regulatory impact analyses (RIAs) and estimates of the realized compliance costs. The long-term goal of this project is to increase the accuracy of the EPA's compliance costs estimates, which in turn will help improve the Agency's benefit-cost analyses.

Detailed tracking of the EPA-related compliance costs for every rule would require a detailed survey of regulated entities of their investments in pollution abatement equipment and pollution

abatement operating costs. Supplying this type of cost data can be seen as burdensome by the regulated firms as it requires them to isolate the incremental cost of the regulation and to fill out associated paperwork. Furthermore, firms usually consider this type of information confidential business information.

As one example of the challenges in collecting post-compliance costs, the EPA conducted a FY 2011 survey of the pulp and paper industry to collect information on what technologies were put in place to comply with Clean Air Act regulations (one New Source Performance Standards rule and two National Emission Standards for Hazardous Air Pollutants rules), including compliance costs. To reduce potential burden, the compliance costs portion of the survey was made voluntary. While 350 facilities responded to the information collection request (a 100% response rate), only one plant voluntarily responded with any compliance cost information.

4: How much did covered entities spend complying with EPA regulations last year?

Answer: The Agency does not routinely track costs of compliance post-rule promulgation. Therefore, no data are available to address cost of compliance with the EPA's regulations in 2012. As discussed in the response to the previous question, the Agency is conducting a retrospective cost analyses and will make available any data that is responsive to your question when it is completed.

For reference, the EPA's National Center on Environmental Economics (NCEE) completed and submitted "A Retrospective Cost Study of the Costs of EPA Regulations: An Interim Report of Five Case Studies" to its Science Advisory Board's (SAB) Environmental Economics Advisory Committee for review in March 2012. The primary purpose of the Interim report was to demonstrate the weight of evidence methodology using a case study approach developed for examining costs retrospectively.

The full text of the Interim report is available here:
http://yosemite.epa.gov/sab/sabproduct.nsf/02ad90b136fc21ef85256eba00436459/3A2CA322F56386FA852577BD0068C654/$File/Retrospective+Cost+Study+3-30-12.pdf

The full text of the SAB Advisory Report, in response to the Interim report, is available here:
http://yosemite.epa.gov/sab/sabproduct.nsf/02ad90b136fc21ef85256eba00436459/2596DA311EE5DBF385257B4A00691B3C/$File/EPA-SAB-13-002-unsigned.pdf

NCEE is preparing a final report anticipated for release later this year, and has begun retrospective analyses on additional rules. Case studies from this next phase will be distributed as they are completed.

5: Many Ohio producers are taking an active role in mitigating nutrient run-off by voluntarily enrolling in the "4R Nutrient Stewardship" program which stands for using the right fertilizer source, at the right rate, at the right time, and with the right placement. Ohio's leading industry representatives have developed this working closely with state agencies.

a: Will the agency defer to voluntary, industry-led programs or will the agency issue formal regulations regarding nutrient management?

Answer: The EPA does not anticipate developing new regulations regarding nutrient management at this time, and will continue to implement existing programs and to emphasize voluntary program approaches and close collaboration with agricultural producers, states, the U.S. Department of Agriculture (USDA), and other partners to encourage effective nutrient management practices to protect water quality.

Through the Clean Water Act Section 319 Nonpoint Source Program, the EPA works with states as they implement nonpoint source programs. Good nutrient management is a key priority of this program and we recognize the importance of 4R's for successful nutrient management planning. Many Section 319 success stories show that water quality improvement can be tied to good nutrient management and by coordinating with other entities to collectively gain improvements in water quality. Many of these success stories report engagement and coordination with USDA's Natural Resources Conservation Service (NRCS) at the local level, who can in turn work with landowners as they voluntarily implement the 4R's on their cropland. The EPA supports the USDA-NRCS Practice Standard Conservation Code 590 for Nutrient Management as the baseline for nutrient management nationally. This conservation practice standard is based upon the 4R Nutrient Stewardship principles of the right fertilizer source, at the right rate, at the right time, and with the right placement. Industry has been a leader in talking to the agricultural community about the importance of the 4Rs of nutrient management. The EPA is aware of industry efforts, such as the "Keep it for the Crop (KIC)" effort in Illinois, which continue to share the message of the 4R's with producers and stakeholders. The EPA also understands the importance of educational training on the 4R's for producers through the NRCS 590 Nutrient Management Standard/4R Nutrient Stewardship Educational Module in development by TFI, NRCS, Iowa State University, and the International Plant Nutrition Institute (IPNI). This effort will educate producers, as well as NRCS employees, fertilizer retailers, and service providers (see http://www.nutrientstewardship.com/4r-training).

b: Have you engaged stakeholders regarding this issue? If so, please provide a list of EPA stakeholder outreach efforts.

Answer: Yes, the agency continues to actively engage stakeholders regarding nutrient management efforts. Many of these efforts are guided by the EPA's March 2011 memorandum to its Regional offices in which the agency reaffirmed its commitment to partnering with states and collaborating with stakeholders to make greater progress in accelerating the reduction of nitrogen and phosphorus loadings to our nation's waters. Examples of stakeholder outreach efforts include:

- Through the EPA Regions, the EPA is coordinating with and supporting states as they develop and implement nutrient reduction strategies, which generally include managing nutrients in the agricultural landscape. The EPA is the co-chair of the Hypoxia Task Force (HTF) and supports HTF member outreach efforts on the 4R's of nutrient management. The EPA is working with USDA-NRCS as they implement the Mississippi River Basin Initiative (MRBI), the Gulf of Mexico Initiative (GoMI), and the National Water Quality Initiative (NWQI). Nutrient managment is a core component of the conservation systems that these programs support.

The Honorable Bill Cassidy

1: Recently, you stated that EPA is embracing the spirit as well as the letter of the NAS recommendations to improve the IRIS program. Yet, the recently revised IRIS methanol assessment, which was released last week, EPA categorizes 15 of 19 'short-term' recommendations as being only partially implemented and only 4 short-term recommendations are listed as implemented. EPAs description for implementing the more substantive recommendations, suggests progress that is minimal at best. What can EPA show to provide true evidence that substantive changes are being made?

Answer: The National Academies' National Research Council (NRC) noted in the "Roadmap for Revision" in their formaldehyde review report that the recommendations they were making about improving the development of IRIS assessments "would involve a multi-year process and extensive effort." Over the past two years, the EPA has been working hard to incorporate the NRC recommendations. As stated in the EPA's 2012 IRIS Progress Report to Congress, the IRIS Program is following the NRC advice and incorporating its recommendations using a phased approach. At this point, all draft IRIS assessments that are released will reflect significant improvements to the document structure which increase transparency in presentation of methods and explanation of the rationale and decision criteria for selecting data and making scientific conclusions. Each newly released draft or final IRIS assessment now includes a summary table of the NRC recommendations and the EPA's actions to implement them. The revised draft methanol assessment (released to the public in May 2013), for example, was shorter, more concise, and visual – providing tables and graphs of data – and implements the transparency changes cited above. Full and robust implementation of the NRC recommendations by the IRIS Program will continue as an evolving process with input and feedback from the public, stakeholders, the NRC committee that is currently reviewing the IRIS assessment development process, and the newly formed Science Advisory Board (SAB) Chemical Assessment Advisory Committee (CAAC).

As further evidence of the EPA's improvements to the IRIS Program and IRIS assessments, the EPA held a public IRIS Stakeholder Meeting (in person and by webinar) on November 13, 2012. The purpose of the meeting was to hear public views on the IRIS Program. More than 450 people participated and provided input. The IRIS Program also recently convened a public stakeholder meeting to receive input on the IRIS assessment of inorganic arsenic, which the EPA is in the early stages of drafting. Based on input received at this meeting, the EPA expanded the scope of the assessment to include both the oral and inhalation routes of exposure.

Additionally, in early 2013, the EPA provided materials to the NRC committee charged with reviewing the IRIS assessment development process. These materials, titled "Part 1: Status of implementation of recommendations" and "Part 2: Chemical-Specific Examples," provide an update on the EPA's progress in addressing the NRC recommendations related to IRIS. The documents are publicly available at http://epa.gov/iris/iris-nrc.htm. More recently, the SAB CAAC held their first public meeting in April 2013. At this meeting, they were briefed on the IRIS Program, including changes being made to address the NRC recommendations. The SAB CAAC will begin reviewing draft IRIS assessments later this year.

The IRIS Program also will convene workshops on various scientific issues later this year. Some of these workshops are relevant to the NRC recommendations. For example, a fall workshop will focus on systematic review. This meeting will be open to the public and will include discussions about

approaches for and steps taken in conducting systematic review, such as evaluating individual studies, approaches for synthesizing evidence within a particular discipline, and integrating evidence across different disciplines to draw scientific conclusions and causality determinations.

Overall, the activities described above provide true evidence of the IRIS Program's efforts to implement the NRC recommendations.

2: How long will it be before released IRIS assessments have fully, not partially, implemented the important NAS recommendations?

Answer: As noted in the 2012 IRIS Progress Report to Congress, the National Academies' National Research Council (NRC) recognized that fully implementing all of their recommendations would "*involve a multi-year process and extensive effort.*" All draft IRIS assessments that are released will reflect significant improvements to the document structure to improve transparency. The methods, rationale, and decision criteria for selecting data and making scientific conclusions are transparent and clearly presented. The revised draft methanol assessment, for example, is shorter, more concise, and visual – providing tables and graphs of data – and implements the transparency changes cited above. In 2013, the EPA anticipates releasing draft IRIS assessments that have fully implemented all of the short-term NRC recommendations. Full and robust implementation of all of the NRC recommendations by the IRIS Program will continue as an evolving process with input and feedback from the public, stakeholders, the NRC committee that is currently reviewing the IRIS assessment development process, and the newly formed Science Advisory Board (SAB) Chemical Assessment Advisory Committee (CAAC).

In early 2013, the EPA provided materials to the NRC committee charged with reviewing the IRIS assessment development process. These materials, titled "Part 1: Status of implementation of recommendations" and "Part 2: Chemical-Specific Examples," provide an update on the EPA's progress in addressing the NRC recommendations related to IRIS. These documents are publicly available at http://epa.gov/iris/iris-nrc.htm. The newly formed SAB CAAC held their first public meeting in April 2013. At this meeting, they were briefed on the IRIS Program, including changes being made in the Program to address the NRC recommendations. This committee will begin reviewing draft IRIS assessments later this year. Additionally, the IRIS Program will convene workshops on various scientific issues later this year. Some of these workshops are relevant to the NRC recommendations. For example, a fall 2013 workshop will focus on systematic review. This meeting will be open to the public and will include discussions about approaches for and steps taken in conducting systematic review, such as evaluating individual studies, approaches for synthesizing evidence within a particular discipline, and integrating evidence across different disciplines to draw scientific conclusions and causality determinations.

3: How many more assessments will be released that are not consistent with the NAS recommendations?

Answer: Over the past two years, the EPA has been working hard to incorporate the NRC recommendations related to the development of IRIS assessments. The National Academies' National Research Council (NRC) noted in the "Roadmap for Revision" in their formaldehyde review report, that the recommendations they were making about improving the development of IRIS assessments "would involve a multi-year process and extensive effort." As stated in the EPA's 2012 IRIS Progress Report to Congress, the IRIS Program is following the NRC advice and incorporating

their recommendations using a phased approach. At this point, all draft assessments that are released will reflect significant improvements to the document structure. Specifically, they will include increased transparency in presentation of methods and explanation of the rationale and decision criteria for selecting data and making scientific conclusions. Each newly released draft or final IRIS assessment now includes a summary table of the NRC recommendations and the EPA's actions to implement them. A few assessments that were undergoing peer review at the time of the NRC recommendations will retain some earlier formatting aspects, in order to maintain fidelity with the assessment that was peer reviewed, but these assessments also demonstrate the above significant improvements by transparently describing the basis for assessment conclusions. The revised draft methanol assessment, for example, is shorter, more concise, and visual – providing tables and graphs of data – and implements the transparency changes cited above. The draft IRIS assessment for benzo(a)pyrene, which will be released for public comment and external peer review in the coming months, represents Phase 2 of our implementing the NRC recommendations by fully addressing all of the NRC's short-term recommendations. Full and robust implementation by the IRIS Program will continue as an evolving process with input and feedback from the public, stakeholders, the NRC committee reviewing the IRIS assessment development process, and the newly formed Science Advisory Board Chemical Assessment Advisory Committee (CAAC).

A full description of the IRIS Program's progress in addressing the NRC recommendations can be found in documents the EPA provided to the NRC earlier in 2013. These materials, titled "Part 1: Status of implementation of recommendations" and "Part 2: Chemical-Specific Examples," provide an update on the EPA's progress in addressing the NRC recommendations related to IRIS. They are publicly available at http://epa.gov/iris/iris-nrc.htm.

The Honorable Cory Gardner

1: Do you believe the Colorado Regional Haze State Implementation Plan (SIP) serves as a model for how states and the federal government should collaborate to reduce regional haze in the West? If so, will EPA be working with the Department of Justice to vigorously defend Colorado's Regional Haze SIP in the 10th Circuit?

Answer: The State of Colorado and the EPA did indeed work together closely while Colorado developed its Regional Haze plan, and the plan contains many beneficial provisions that should help reduce regional haze in Colorado's many national parks and wilderness areas. While the EPA acknowledges that Colorado's approach was a novel and comprehensive strategy for addressing regional haze requirements and other air quality goals, the EPA did express some concerns in its approval of the Colorado plan with the cost and visibility analyses that were conducted for the units at the Tri-State Craig facility. In regards to the litigation on our approval of Colorado's plan, we are currently engaged in confidential settlement discussions under the auspices of the 10th Circuit mediator, and, therefore, we cannot comment further at this time.

The Honorable Mike Pompeo

1: Recently, the EPA has undertaken a wide-ranging review of the retailers that offer Lead Renovation, Repair and Painting (LRRP) installation services rather than the contractors on the jobsite, performing the work. The Agency reportedly has asserted that the retailers themselves are responsible for all aspects of compliance with the LRRP Rule - even though

the renovation work is actually performed by the independent, third-party contractors and not by the retailers themselves. What are your thoughts on the expansion of the LRRP rule to include a retailer?

Answer: In 2008, the EPA promulgated the Lead, Renovation, Repair, and Painting Rule. The RRP Rule prohibits firms from performing, offering, or claiming to perform renovations for compensation in target housing and child-occupied facilities unless they first become an EPA-certified renovation firm (See 40 CFR 745.81.(a)(2)(ii)).

The requirement for firm certification includes not only firms that "perform," but also those that "offer" or "claim to perform renovations" (see above). The EPA understands that many home improvement retail companies enter into contracts with consumers to perform renovations. These contracts constitute offers to perform specific renovations for compensation and, when the consumer signs the contract, the company becomes obligated to perform on the contract. Whether the home improvement retail company intends to perform the renovation using its own employees or contracts the work out to another firm or independent installer, the company is obligated to become a certified renovation firm before entering into such contracts.

EPA-certified renovation firms have certain responsibilities specified at 40 CFR 745.89(d), including, but not limited to, a responsibility to ensure that the recordkeeping requirements of 40 CFR 745.86 are met. Per 40 CFR 745.86, the firm must retain, and if requested, make available to the EPA all records necessary to demonstrate compliance with the RRP Rule. The EPA has developed a sample one-page recordkeeping checklist to assist firms in complying with these requirements.

2: Shouldn't the goal of the LRRP rule be to reduce lead based hazards during a renovation project? If so, why is the agency more focused on bureaucratic, administrative errors in the paperwork submitted to a retailer by the independent subcontractors rather than focusing on actual performance and compliance with the rule by the subcontractor onsite in the actual workplace?

Answer: Section 402 of the Toxic Substances Control Act provides that the goal of the EPA's Lead-Based Paint Renovation, Repair and Painting Rule is "to ensure that individuals engaged in ... [lead-based paint] activities are properly trained; that training programs are accredited; and that contractors engaged in such activities are certified." (Section 402 of the Toxic Substances Control Act, 15 U.S.C. 2682). Common renovation, repair, and painting activities that disturb lead-based paint (like sanding, cutting, replacing windows, and more) can create hazardous lead dust and chips which can be harmful to adults and children. But with careful work practices and thorough clean-up, renovations can be done safely. The EPA's Lead Renovation, Repair and Painting Rule (RRP Rule) requires that firms performing renovation, repair, and painting projects that disturb lead-based paint in homes, child care facilities and pre-schools built before 1978 be certified by the EPA and use certified renovators who are trained by EPA-approved training providers to follow lead-safe work practices. The agency protects the public from exposure to lead by requiring compliance with all aspects of the RRP regulations – training and certification in lead safe work practices, compliance with those work practices on site, as well as maintaining adequate documentation that those work practices were followed.

The Honorable Bill Johnson

1: The Environmental Protection Agency headquarters in Washington, D.C. maintains an open door with manufacturing companies in the United States. However, companies often encounter less transparency and accessibility with the agency at the research level regarding data. What steps will the Agency take to rectify this problem?

Answer: The EPA's research provides much of the foundation for Agency decision-making and the basis for understanding and preparing to address environmental needs and issues. The manufacturing sector is important for the EPA and in recent years, the Agency has expanded its analysis of sector-based options to address complex issues like non-point source pollution from food and livestock production, and to continue work in the agri-business sector that focuses on the major corporate entities that have an enormous effect on environmental management decisions related to food production.

All research and development resources in the EPA continually inform Agency decisions, solve current real-time environmental problems on the ground, or design tools and approaches to be applied to emerging issues. The EPA's research program functions in close partnership with the EPA Program and Regional offices, highlighted by ongoing interaction anticipating the Agency's policy-level decision-making needs, and also emphasizing practical, timely, relevant, and rigorous peer-reviewed findings. The EPA's research methodology, tools, models and databases are publicly available and easily accessible on the EPA's website. Additionally, the EPA provides a wide variety of guidance, presentations, and other assistance to the regulated community and continues to respond to requests for information as they are received.

Further, the EPA has established, and continues to promote, a commitment to scientific integrity. When dealing with science, it is the responsibility of every EPA employee to conduct, utilize, and communicate science with honesty, integrity, and transparency, both within and outside the Agency. As part of this commitment, the EPA is developing a draft implementation plan to support increased public access to the results of research funded by the Agency. This is in response to the February 22, 2013 Office of Science and Technology Policy (OSTP) memorandum requiring that the results of federally funded scientific research be made available to and useful for the public, industry, and the scientific community. As directed by OSTP this draft implementation plan will be submitted by August 22, 2013 and will be will be finalized after OSTP has reviewed the draft and provided comments back to the EPA.

2: On multiple occasions the EPA has stated the important value of manufacturing companies in the United States to improving job growth and the environment. Yet many manufacturing companies face serious challenges with regulations by the Environmental Protection Agency, which effectively force manufacturing to relocate outside the United States. What will the Agency do to improve cooperation between the Environmental Protection Agency and these companies?

Answer: The EPA strives to have collaborative working relationships with all stakeholders in the regulatory process. Working closely with the regulated community can lead to better programs that are more effective and efficient. To that end, continuously improving relations with members of the regulated community has been a long-standing goal of the Agency. Just a few of the general means available to the agency for improving cooperation with the regulated community on regulations

include the notice and comment process of the Administrative Procedure Act, the Small Business Regulatory Enforcement Fairness Act, and the use of public meetings related to regulations under development. In addition, like other Federal agencies, the EPA publishes a Semiannual Regulatory Agenda and an annual Regulatory Plan. These documents describe regulations currently under development or recently completed.

Over the years, the EPA has used both formal and informal processes for engaging stakeholders. For example, soon after the 1990 Clean Air Act amendments, formal regulatory negotiations produced agreements on proposed rules to prevent toxic emissions from equipment leaks, set requirements for cleaner "reformulated" and "oxygenated" gasolines, and cut toxic emissions from steel industry coke ovens. Informal talks and consultation with advisory committees produced agreement on rules that control acid rain and phase out chlorofluorocarbons, which deplete the stratospheric ozone layer.

A recent example where the EPA's extensive stakeholder outreach led to successful rulemaking process is the EPA and the Department of Transportation's National Highway Traffic Safety Administration's (NHTSA) joint rulemaking to develop the first National Program of harmonized standards to reduce greenhouse gas (GHG) emissions and improve fuel economy from cars and light trucks. These standards, broadly supported by stakeholders, will result in significant GHG reductions and oil savings and save consumers money at the pump. In developing the rule, the EPA met extensively with a wide range of stakeholders, including automakers, automotive suppliers, labor unions, consumer groups, environmental interest groups, state and local governments, and national security experts and veterans. The input from stakeholders was invaluable in ensuring that the EPA had the most comprehensive set of data and other information possible to inform the proposals.

Another recent example of a successful rule resulting from the EPA's stakeholder outreach includes the GHG Reporting Rule. The EPA met individually with a diverse range of stakeholders to seek their input, including members of the power industry and related trade associations, vendors of air pollution control and monitoring technology, engineering firms, and regional transmission operators that distribute electric power. These discussions helped shape key provisions to minimize compliance burden and protect electricity reliability while meeting emission standards. For the GHG Reporting Rule, the EPA actively sought input from stakeholders through holding technical meetings. To date, the GHG Reporting Program has held nearly 500 outreach meetings, webinars, and public hearings. Based on stakeholder input, the EPA provided extensive website postings for every action taken and efforts to highlight public comment periods for rules, information collection requests, and other Federal Register notices. The EPA also made the electronic GHG reporting system available to the reporting community prior to finalizing and launching the software, resulting in over a thousand stakeholders providing valuable feedback. This feedback allowed the agency to tailor reporting requirements to make it easier for businesses to comply, thus saving time and money.

The EPA views cooperation between the agency and companies to be a very important aspect of our work, and we plan to continue use of the processes we have in place to ensure engagement with stakeholders in future regulatory actions.

3: The Environmental Protection Agency is criticized for employing data in various programs that is outdated, if that data is at all revealed to the public or businesses. What measures will the Agency take to correct the use of inaccurate, outdated data in regulatory compliance?

Answer: Three internal processes the Agency uses to ensure that data and information used to support its decisions represent the best available science and meet specific quality standards are:

1. EPA Quality Program - epa.gov/quality,
2. Information Quality Guidelines - epa.gov/quality/informationguidelines and
3. Action Development Process

The EPA Quality Program requires the development of environmental data quality criteria, Quality Assurance documentation, and robust data quality reviews to ensure data are appropriate for its intended use. The Information Quality Guidelines establish an internal Agency review of information, which may include peer review, before it is disseminated to the public. The Action Development Process provides a comprehensive framework to ensure the use of quality information to support Agency actions and an open process.

When the EPA issues a notice of proposed rulemaking supported by studies and other information described in the proposal or included in the rulemaking docket, the open public comment period gives the public or business an opportunity to provide feedback to the agency about the quality of the data and information being used to support a regulatory action. The Agency uses the public comment period and the subsequent development of a response to comments document as a process to correct inaccurate and outdated data. The EPA believes that the open public comment process allows the Agency to correct any data or information that is inappropriate for a given regulatory action.

The EPA provides compliance and enforcement data on the Enforcement and Compliance History Online (ECHO) website (http://www.epa-echo.gov). The data shown within ECHO are drawn from national enforcement and compliance databases. Each national data system that feeds ECHO has data integrity procedures (built into system software and training for data entry specialists), including a set of data stewards within the EPA and the states that are responsible for ensuring high-quality information is provided. To further ensure the integrity of the data, the EPA has a yearly "Data Verification" process with the states to ensure that the right information is going into the data systems. ECHO also provides users with the opportunity to challenge the veracity of the data through an online Agency error notification process. Under this process, data users can pinpoint information that may need review. The EPA and state data stewards then use this information to determine whether data fixes are needed – then communicate the resolution to the EPA. Users that are not satisfied with the decision of the data steward are also offered appeal options, as specified under the Data Quality Act. ECHO also maintains a system of "Data Alerts" and caveats shown in ECHO that are primarily dedicated to explaining specific data flows that are problematic (e.g., situations when the states are not able to properly submit data).

The aforementioned processes are measures the Agency will continue to employ to ensure the use of accurate and timely data for its environmental decisions and regulatory compliance.

4: I recognize that there are times when spending additional money on a specific regulation is required in order to develop a proper rule. For example, the EPA is currently in the process of developing a MACT standard for the brick industry to replace the MACT that was vacated by the courts in 2007. Since this industry was in full compliance with the original Brick MACT before it was vacated, much of the emission reduction from the larger sources has already been achieved as most of those controls remain in place. In fact, EPA is using data from those

sources who installed controls in good faith to force even more stringent controls on this vital industry. How is the Agency effectively using resources to develop a rule that acknowledges the emissions reductions already attained and to not blindly follow the "one size fits all" approach used in recent MACTs?

Answer: We are aware of the issues noted above for this rulemaking. We are using technical information developed in recent rulemakings (such as boilers and Portland cement) in order to efficiently use our resources in this effort. As we develop the proposed rule, we are considering the fact that some sources have already installed control devices, and we are investigating the extent to which a standard, consistent with the statutory requirements, may be fulfilled leaving the already-installed control devices in place. However, we are legally required to consider the current emissions levels for sources in the industry in setting regulations, including, for the Brick MACT, sources in that category with high-performing control devices. The statutorily mandated process results in emissions limits that apply to all sources in the category and may require some sources to achieve additional reductions.

5: For example, the Clean Air Act has a different path that is allowed in situations like this. This path, using a combination of health-based standards for threshold pollutants and work practices for pollutants where it is impracticable to measure and control, could both protect the environment and ensure an important industry is not needlessly threatened. Will EPA commit to fully explore this alternative path?

Answer: We have already begun looking at the regulatory flexibilities available to us under the law. This includes health-based standards and work practices for certain pollutants and/or sources.

6: The rulemakings for the Brick industry have been impacted by the EPA's "sue and settle" approach to dealing with third-party lawsuits on both rounds. The now-vacated MACT was rushed in 2003 due to a pending lawsuit from an environmental group, resulting in a rule that was vacated by the courts for its deficiencies. Now this industry is facing another court-ordered schedule based on a consent decree that you recently accepted. What assurances can the Agency give me and this industry that the schedule will not be used as justification for yet another rushed deficient rule? And what can the Agency do to ensure that this rulemaking will include a full consideration of the alternative approach of using a combination of health-based and work practice standards to ensure that the requirements of the CAA are followed and the environment protected without requiring huge burdens on a critical industry that provide limited to no environmental benefit?

Answer: We have renegotiated the consent decree deadline for the proposed rule, extending it from August 2013 to February 2014. This change addressed concerns raised by small businesses as part of the SBREFA process. We believe this additional time will allow us to fully consider the alternative approaches discussed above and develop a rule that is fully consistent with statutory requirements. Based on our experience, we believe that negotiated settlements, as opposed to continued litigation, in the long run provide more reasonable schedules and more certainty.

7: I recognize that EPA is being asked to do more with less; however, so is industry. The brick industry is relatively small, with more limited resources than some of the source categories that you have recently regulated. What is the Agency doing to ensure that this small industry is not disadvantaged simply because it does not have the financial resources to fund research

projects to support the rulemaking process? Please explain in detail how EPA ensures that smaller industries have the same access to a fair and reasonable rule as larger industries.

Answer: The EPA is sensitive to the financial issues of the brick industry. For example, when we requested emission testing, we tried to restrict the testing requirements to the minimum required for the rulemaking process. We have reached out directly to control equipment vendors to obtain data, rather than asking the industry to do so, and we have leveraged information from other rulemakings involving similar industries to minimize the need for research specific to the brick industry and hence lighten the burden. As part of the rulemaking process, we also consider regulatory impacts of the proposed rule. This requires that we investigate different approaches that industry could use to meet the proposed emission limits. We will undertake this process with the same thoroughness for the brick industry as we do for larger industries, and we will have developed the same level of information at the end of this process. In addition, the SBREFA process, discussed above, will provide the brick industry an additional opportunity to discuss specific issues of concern to small businesses.

8: Is the EPA maintaining and saving all forms of mobile communication of political appointees? This includes text messages, blackberry messages, iPhone messages, etc.

Answer: Because of transitory nature and limited size of communications such as text messages (on any brand of mobile device), it is unlikely that these messages will constitute records subject to a preservation under the Federal Records Act. However, should an employee identify a particular text message that constitutes a Federal Record, the EPA would work with that employee to properly preserve the text message.

9: If you are saving all of these messages are you working to turn over messages that are in the scope of FOIA to parties that have requested them?

Answer: In responding to a Freedom of Information Act (FOIA) request, the EPA searches for all records that are responsive to that FOIA request. If during the search for responsive records, text messages are identified, and then the EPA would process these records along with all other responsive records to the FOIA request.

<u>The Honorable John D. Dingell</u>

1: I recently joined with my colleagues from the Great Lakes region in signing a letter to the Appropriations Committee requesting $300 million for the Great Lakes Restoration Initiative. I know the Administration requested that level of funding as well. However, I have concerns about what EPA is doing to address water quality in the Great Lakes. On March 15, 2013, I sent you a letter referencing an article in the New York Times which noted that in the 1960s Lake Erie was nicknamed "North America's Dead Sea." I have worked long and hard to pass legislation and funding to protect and preserve the Great Lakes.

a: Given current and requested funding levels, does EPA have the resources to combat massive algae blooms such as the one on Lake Erie?

Answer: It will take a coordinated, multi-year approach to address the problem of massive algae blooms such as the one on Lake Erie. Several agencies, particularly the EPA, U.S. Department of

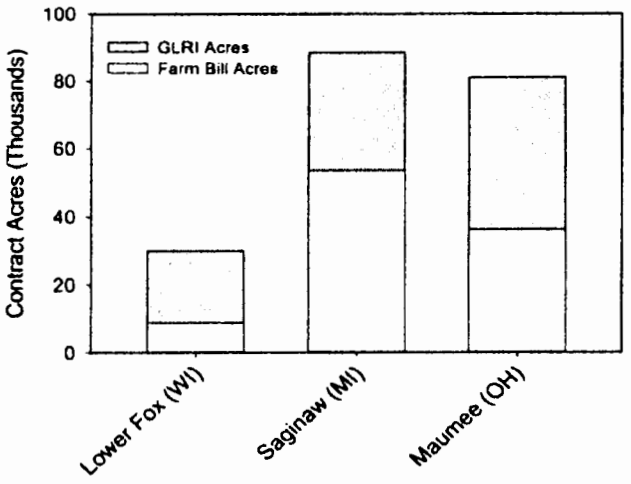
Agriculture's Natural Resource Conservation Service (NRCS), U.S. Army Corps of Engineers, National Oceanic and Atmospheric Administration, and U.S. Geological Survey, are targeting some of their GLRI and non-GLRI funding for that purpose. In light of the nation's current fiscal condition and budget constraints, we believe the current and requested funding levels are appropriate. Because phosphorus has built up in soil over many years and takes time to process through watersheds, these and other management actions will likewise take time to show results downstream.

b: Could you please submit for the record additional information on efforts EPA is taking to address this issue?

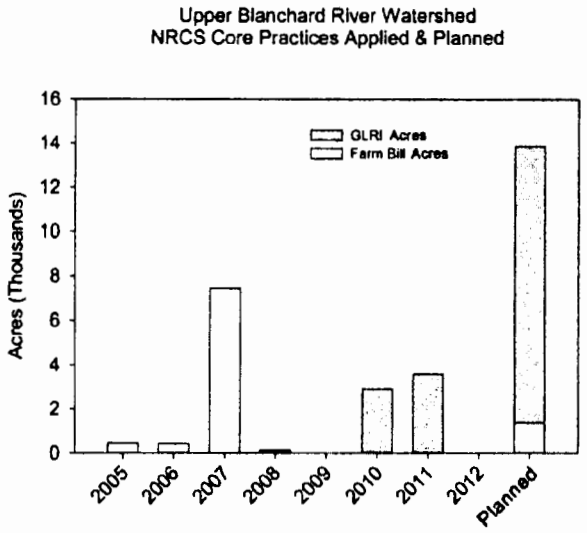
Answer: The EPA is coordinating efforts by GLRI agencies, such as NRCS, to direct resources and activities at the most significant cause of this problem – nutrient runoff from agricultural lands. In 2011, the Great Lakes Interagency Task Force (IATF) directed its Regional Working Group (RWG) to prioritize GLRI efforts to address nutrient runoff in key Great Lakes watersheds. The Maumee River watershed, which is located in Ohio, Michigan, and Indiana and which flows into western Lake Erie, is one of three targeted Great Lakes watersheds.

The EPA has given GLRI funding to NRCS to provide farmers with financial and technical resources to implement science-based conservation systems that will control soil erosion and reduce nutrient loss. So far, over 260 GLRI-funded nutrient reduction projects and assistance agreements with farmers are underway in the Maumee River watershed. These conservation systems allow farmers to tailor fertilizer inputs to crop needs, improve the health of their soil, and sustainably produce food for the nation. These projects in the Maumee River watershed, together with USDA projects funded outside of GLRI, put over 80,000 acres under contract (see chart below), will reduce sediment and nutrients entering Lake Erie, and will reduce human health risks and ecosystem degradation posed by harmful algal blooms and other nuisance algal growth.

USDA Conservation Practices – Contracted Acres (FY 2010-FY 2012) as of Oct. 1, 2012



Within targeted watersheds, the agencies are now focusing on subwatersheds that are most likely to yield results, implementing targeted actions to achieve them, and monitoring the resulting phosphorus reductions. Applied and planned practices funded by GLRI are expected to cover approximately 7 percent of cropland in the Upper Blanchard River sub-watershed of the Maumee River. (See chart below.)



Since 2011, the EPA also has used GLRI resources in conjunction with other federal agencies to advance the science necessary to better understand the effectiveness of actions taken to reduce the amount of nutrients entering Lake Erie. These activities include:

- installing equipment to measure reductions in phosphorus and sediments;
- mapping algae blooms via satellite;
- increasing the technical expertise of agricultural professionals working in the Maumee watershed with respect to nutrient management plans;
- developing TMDLs in the upper Maumee watershed;
- improving agricultural drainage management in the western Lake Erie basin; and
- evaluating discharges of nutrients into Lake Erie from point sources.

In addition to the GLRI, the EPA administers other programs that can be used to address nutrient reduction in the Lake Erie Basin, such as the Section 319 Program. Section 319 of the Clean Water Act (CWA) established a national program to address nonpoint sources of water pollution. Section 319(h) specifically authorizes the EPA to award grants to states with approved Nonpoint Source Assessment Reports and Nonpoint Source Management Programs. The funds are used to implement programs and projects designed to reduce nonpoint source pollution, such as implementation of Nine Element Watershed Plans and Total Maximum Daily Loads (TMDLs).

Additionally, the EPA's National Pollutant Discharge Elimination System (NPDES) permit program controls water pollution by regulating point sources that discharge pollutants, including nutrients, into Lake Erie and its tributaries.

2: What is EPA doing to enforce the cost of cleanups and emergency cleanups? What is EPA doing to hold property owners responsible for the costs related to cleanups?

Answer: The EPA is committed to an "enforcement-first" approach that maximizes the participation of liable and viable parties in performing and paying for Superfund cleanups. The EPA conducts rigorous searches to find Potentially Responsible Parties (PRPs) at hazardous waste sites. There are four classes of Superfund liable parties: current owners and operators of a facility; past owners and operators of a facility at the time hazardous wastes were disposed; generators and parties that arranged for the disposal or transport of the hazardous substances; and, transporters of hazardous waste who selected the disposal site.

Once identified, the EPA, in coordination with the Department of Justice, negotiates cleanup agreements with the PRPs and, where negotiations fail, takes enforcement actions to require cleanup or expends Superfund appropriated dollars to remediate the sites, sometimes in combination. The agency will then seek recovery of those appropriated dollars that have been expended. Since the inception of the program, the cumulative value of private party commitments for cleanup is over $37 billion ($31.2 billion for cleanup work and $6 billion in cost recovery).

More information about the EPA's Superfund Enforcement program may be found at: http://www.epa.gov/compliance/cleanup/superfund/index.html

a: Is EPA going to continue to hold these existing steps to the highest level of importance?

Answer: Yes, consistent with funding levels the EPA will continue to ensure PRP participation in cleanups while promoting fairness in the enforcement process and will continue to recover costs from PRPs when appropriated dollars are expended.

The Honorable Frank Pallone, Jr.

1: On January 14th of this year, I, along with several of my colleagues in the House of Representatives, wrote to the Office of Management and Budget regarding the RICE NESHAPS rule. Specifically, we expressed concern with effectively allowing basically unregulated diesel generators to get paid to run as so-called "demand response." Senator Lautenberg and others have also written on this issue and it was raised by Chairman Whitfield at a hearing last week in the Energy and Power Subcommittee.

While the decision to allow these diesel-fueled backup generators to participate in the electricity market was FERC's, it was EPA's decision not to hold these units to the same environmental standards as others bidding into the market, even though these dirty diesel units are displacing cleaner sources of generation, including solar and wind. Perhaps that's why the concern over this decision has been raised by a diverse set of concerned stakeholders including environmental groups, New Jersey and other states, and power companies. This very diverse set of stakeholders coming together on the same side has now taken the rule to court to petition the EPA for reconsideration. Given the concerns raised by this unique coalition of stakeholders and members, does EPA plan to reconsider the RICE NESHAPS rule?

Answer: We are currently evaluating all of the petitions for reconsideration that we received for the RICE NESHAP. On June 28, 2013, then Assistant Administrator Gina McCarthy sent a letter to the Delaware Department of Justice stating that the Agency intends to initiate a reconsideration process for the RICE NESHAP on the following issues:

- Timing for compliance with ultra low sulfur diesel fuel requirement for emergency compression ignition engines that operate or are contractually obligated to be available for more than 15 hours per calendar year.
- Timing and the required information for the reporting requirement for emergency engines that operate or are contractually obligated to be available for more than 15 hours per calendar year.
- Conditions in 40 CFR § 63.6640 (f)(4)(ii) for operation for up to 50 hours per year in non-emergency situations as part of a financial arrangement with another entity.

We are continuing to review the other issues in the petitions. We value the input you have provided and will consider it as our evaluation proceeds.

The Honorable Diana DeGette

1: Is it known for certain whether or not shale gas development through hydraulic fracturing poses an increased risk to human health and the environment over the risks associated with conventional oil and gas development?

Answer: This is an important question that the EPA's Drinking Water Study and the Tri-Agency work seek to inform.

2: Is it known for certain whether or not shale gas development through hydraulic fracturing poses no risk to the environment or public health?

Answer: No, it is not known for certain whether or not shale gas development through hydraulic fracturing poses no risk to the environment or public health.

3: As you know, in 2010, former Congressman Hinchey and I requested an EPA study to determine the potential impacts of hydraulic fracturing on drinking water. In your FY 2014 budget request, you ask for $6.1 million for the study. As I understand, the study is currently underway with the final report due in late 2014. Is that still the timeline?

Answer: We are on schedule to release a draft report of results for peer review in December 2014. In the Spring of 2015, the SAB will peer review the draft report of results. We expect a final report from SAB by Fall of 2015, and will work to complete the final report of results as expeditiously as possible after that (likely in early to mid 2016, depending on the extent of comments and new information provided during peer review and public comment).

4: Is it correct that the hydraulic fracturing drinking water study has been designated a Highly Influential Scientific Assessment, and that a new Scientific Advisory Board, different from the Scientific Advisory Board that reviewed the scoping for the study, has been selected to review the draft report?

Answer: Yes, the 2014 draft report of results has been designated a Highly Influential Scientific Assessment, as posted on the EPA's Science Inventory. It will receive the highest level of peer review in accordance with the EPA's peer review handbook.

In March, the EPA's independent Science Advisory Board announced the formation of a Hydraulic Fracturing Research Advisory panel, and it is anticipated that this panel will review the draft report of results. This is a different ad hoc panel from the one which reviewed the Study Plan.

5: Given the designation of the study as a Highly Influential Scientific Assessment and the formation of a new Scientific Advisory Board, do you still have sufficient funding, time, and access to information to complete the study by late 2014? Or will it only be released for peer review by that time?

Answer: The EPA plans to release a draft report of results for review by the Science Advisory Board's Hydraulic Fracturing Research Advisory Panel in December 2014.

6: One part of the study I am especially interested in is the case studies. You identified five sites for retrospective case studies and directed EPA, the state, and industry to be present during sampling to verify and review the samples for quality assurance.

a: What are the statuses of the retrospective studies at the five sites? Have there been any issues with data collection and analysis?

Answer: The EPA has successfully completed its Tier 2 sampling activities at all five sites. The data is undergoing quality assurance now, and then the EPA will evaluate the data to determine next steps.

b: There are also supposed to be a number of prospective case studies, where wells are drilled, completed, and then produce, with data collection and measurements each step of the way. What about the sites for prospective case studies? Have they been identified, and do you have the resources and support to proceed?

Answer: The EPA is currently working with industry partners to identify locations and develop research activities for the prospective case studies.

7: The EPA has also issued requests for existing data concerning spills, water and waste treatment and disposal, identities of chemicals, standard operations at drilling sites, well locations, water use, well files, etc., from state, Federal, and local governments, as well as industry and other stakeholders. Are there any existing or ongoing requests for information? How much of a response have you received?

Answer: We have no outstanding formal requests for information. In 2010 and 2011, the EPA requested information from nine hydraulic fracturing service providers and nine oil and gas companies. We received responses from all the firms from whom we requested Information and are in the process of evaluating the information and engaging in discussions with the companies to ensure that the information is complete and that we understand it completely.

In November 2012, the EPA published a Federal Register Notice inviting the public to submit data and scientific literature to inform the EPA's research on the potential impacts of hydraulic fracturing on drinking water resources. On April 30, 2013, the EPA extended the deadline to submit information to the docket from April 30, 2013 to November 15, 2013. The EPA extended the deadline in order to provide the public with more of an opportunity to provide data, scientific papers, and other information to inform the EPA's study.

8: As you know, the Energy Policy Act of 2005 exempted hydraulic fracturing from EPA regulation under the Safe Drinking Water Act, except when diesel is used. In the EPA's budget justification, you mention EPA will ensure proper oversight of hydraulic fracturing operations where diesel fuel is used by implementing permitting guidance under SDWA's Class II UIC program. What is the status of the guidance?

Answer: The EPA is currently focused on reviewing the more than 97,000 public comments it received on the draft guidance and on making appropriate revisions to the guidance. Any revised guidance will reflect the public comments the EPA has received on the definition of diesel fuels.

9: The budget justification also mentions that the agency also will work with states and stakeholders on developing and implementing voluntary strategies for encouraging the use of alternatives to diesel in hydraulic fracturing and improving compliance with other Class II regulations, including risks from induced seismic events and radio nuclides in disposal wells. One of the primary factors in America's significant reductions in pollution over the last 40 years has been federal baseline policies for restoring and protecting the environment, including the UIC program. Could you or your staff continue to update us on the guidance and the outreach to improve compliance for this program?

Answer: The EPA is currently focused on reviewing the more than 97,000 public comments it received on the draft guidance and on making appropriate revisions to the guidance. Any revised guidance will reflect the public comments the EPA has received on the definition of diesel fuels.

<u>The Honorable John Barrow</u>

1: I understand that you've been working with stakeholders to finalize the rule governing cooling water intake structures under Section 316(b) of the Clean Water Act. Last year, I joined on a letter to EPA urging that the final rule should provide ample compliance flexibility to accommodate a diversity of industrial facilities and allow for multiple pre-approved technologies. Can you provide an update on your progress for finalizing the rule with those goals in mind?

Answer: The EPA is working diligently to complete its work to develop final standards under Section 316(b) of the Clean Water Act and plans to finalize these standards by November 4, 2013. In exercising its CWA authority to promulgate technology-based standards, the EPA always uses one or more technologies that are available and effective as the basis for setting numeric limits. The EPA sets performance-based standards; the EPA does not prescribe the technology that a facility uses, allowing facilities to take their site-specific factors into account in deciding how best to comply. In the April 2011 proposal, the EPA specifically sought additional data on the extent to which facilities could comply with the proposed standards, which can help the agency assess the extent to which the proposed standards were appropriate. Through this public comment process, the agency

received an additional 80 documents, as noted in the Notice of Data Availability published on June 11, 2012. Moreover, the EPA received significant comments regarding ways in which the impingement mortality standard could be modified to allow site-specific variability to be taken into account, and noted these flexibilities in the June 11, 2012 Notice of Data Availability.

The Honorable Jerry McNerney

1: At the hearing, EPA stated that it plays a role in reviewing the Bay Delta Conservation Plan (BDCP). What have been and what are the specific actions EPA is involved with during this interagency process?

Answer: The EPA reviews NEPA-related documents characterizing BDCP project alternatives, and we have offered observations and advice to the Sacramento Corps District as they develop their permitting framework for the project per the Clean Water Act and Rivers and Harbors Act (the framework is called the BDCP: Permit Application Approach for Conservation Measure 1). We are currently reviewing the Administrative Draft Environmental Impact Statement/Environmental Impact Report (ADEIS) for the BDCP.

a: How has the EPA communicated with other federal agencies that are also working on the BDCP?

Answer: The EPA participates in biweekly Regional Federal Coordination calls/meetings convened by a representative from the Department of the Interior. Beyond this forum, the EPA staff and managers have regular exchanges with representatives from other resource and regulatory agencies and with representatives from a variety of stakeholder groups.

2: The EPA Action Plan for the Bay-Delta stated that "Despite much ongoing activity, CWA (Clean Water Act) programs are not adequately protecting Bay Delta aquatic resources, as evidenced by the pelagic organism decline." Does EPA believe that the current BDCP proposal adequately addresses the concerns outlined in its report related to protecting the Bay Delta Estuary?

Answer: We are currently reviewing the Administrative Draft Environmental Impact Statement/Environmental Impact Report (ADEIS) for the BDCP and we submitted an initial list of comments and concerns to the U.S. Bureau of Reclamation in July.

3: How many and what type of resources (e.g. number of staff, hours worked, and total agency funds, etc.) were used on the BDCP in fiscal years 2011-2012?

Answer: The EPA estimates that two full-time equivalents (FTE) have been devoted to the proposed projects during fiscal years 2011-2012.

AL-14-000-8911

Questions Submitted for the Record by Representative Calvert

Waters of the United States/ "Navigable Waters"

The rule recently proposed by EPA on Waters of the United States would expand the ability of the Federal government to regulate nearly every water body in the United States. Where previously there were questions about the role of States vs. the Federal government in ensuring clean waterways, EPA's rule proposes to eliminate many of those questions. The certainty EPA claims the rule offers is the certainty that EPA will assert its control over State's rights and require more Federal permits. It is often one thing to share two different perspectives on a policy. However, EPA's claim that *"the proposed rule will not add to or expand the scope of waters historically protected under the Clean Water Act"* is entirely misleading. The only way that EPA can justify this claim is by assuming that Supreme Court decisions in 2001 and 2006 never happened. Prior to those court decisions, EPA believed it had the jurisdiction to regulate nearly every water body under the Clean Water Act. When the Supreme Court disagreed, EPA was forced to re-evaluate the State role with respect to water rights. That is why it is unfortunate that this proposal proves to be the greatest bureaucratic expansion of Federal control over land and water resources in the 42-year history of the Clean Water Act. The amount of acreage subject to EPA's jurisdiction will expand exponentially as more waterways are subject to permitting, and the amount of uncertainty and the lack of prepared cost estimates associated with this rule are alarming.

While the Agency has stated that the rule would not be issued until the Connectivity study has been finalized, however the Connectivity study has yet to be peer-reviewed by the Science Advisory Board.

Calvert Q1: Is it important for the Agency's regulatory promulgation to be based on science? If so, what is the justification for moving forward with the expansion of the scope of Waters of the U.S. before the Connectivity Study is completed and undergone peer review?

Answer: We agree that it is essential for the Agency's regulatory promulgation to reflect the most current relevant science. In the case of the proposed rulemaking for the definition of "waters of the U.S." under the Clean Water Act (CWA), the EPA's Draft Connectivity Report ("Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence") provides a review and synthesis of the published, peer-reviewed scientific literature regarding the effects that streams, wetlands, and open waters have on larger downstream waters such as rivers, lakes, estuaries, and oceans. The draft report has already undergone both internal and external peer review, and is now being reviewed by the EPA's independent Science Advisory Board (SAB). The SAB published its draft peer review on April 1 and held public meetings to discuss the draft review on April 28 and May 2. The SAB expects to issue a final peer review report later in 2014. The EPA has committed that the rule will not be finalized until the SAB review and the final Connectivity Report are complete.

Calvert Q2: There is no doubt that a definition of the Kennedy test of significant nexus is extremely difficult to define. Has the Agency considered contracting with an outside body, such as the National Academy of Sciences, to assist EPA in scientifically defining how the federal government should define "connectivity" or a "significant nexus" between waters? If so, what was the result of those discussions?

Answer: As noted in response to your previous question, the agency believes it is critical for its rulemaking efforts to reflect the best science. To help do this, the agency developed a draft report that synthesizes available peer-reviewed literature, which is receiving extensive independent peer review by the agency's Science Advisory Board (SAB). The agency believes that the SAB review process will provide sufficient independent external review of the agency's scientific work, and thus the agency has not specifically considered any additional process for obtaining such review with an outside body such as the National Academy of Sciences.

While the stated intent of the proposed rule is to minimize uncertainty of interpretation of federal authority under the Section 404 wetlands permitting program, it seems that it will increase uncertainty for other Clean Water Act programs.

Calvert Q3: What is the process by which EPA and the Corps will follow to initiate a significant nexus test? Can anyone request a jurisdictional determination? Will the owner/operator need to ask for a jurisdictional determination? Will a permit need to be requested?

Answer: Most questions regarding Clean Water Act (CWA) jurisdiction arise in the context of the Section 404 program, and the Corps of Engineers (Corps) has primary responsibility for determining jurisdiction in this context. Under the policy contained in the proposed rule, only waters that fall in the "other waters" category would be subject to an individual significant nexus evaluation. When a CWA Section 404 permit applicant, i.e., a landowner or other party that has realty interest in the property, requests from the Corps a jurisdictional determination for a waterbody that falls within the "other waters" category in the proposed rule, the Corps would perform a significant nexus evaluation to determine its jurisdiction. Only an applicant, as previously defined, can request a jurisdictional determination. If the applicant proposes to discharge dredged or fill material into waters of the U.S., it is the applicant's responsibility to request and obtain a permit under Section 404 of the Clean Water Act, providing the activity is not exempt under another section of the Act. If the applicant is uncertain whether the water is a waters of the U.S., the applicant could ask the Corps to conduct a jurisdictional determination before submitting a permit application, or could simply apply for the permit without asking for the determination.

Calvert Q4: What is the estimate of the additional resources, both in funding and in staffing, that will be needed to administer and enforce this rule?

Answer: The U.S. Army Corps of Engineers, which is the agency that processes and issues these permit applications, estimates the administrative cost of these additional permits to range from $7.4 to $11.2 million, annually. This information is documented in "Economic Analysis of Proposed Revised Definition of Waters of the United States," September 2013, which is in the docket for the proposed Waters of the U.S. rule. The EPA develops and interprets the environmental criteria used in evaluating permit applications, which can vary in cost depending upon the complexity of a permit, so quantifying EPA costs would be much more challenging.

The agencies believe the proposed rule will reduce some existing permitting costs and expedite the permit review process by clarifying determinations of Clean Water Act jurisdiction, which has been time-consuming and resource intensive for field staff and the regulated community since the Supreme Court decisions in SWANCC (2001) and Rapanos (2006). The two Supreme Court cases and subsequent guidance have often required agency staff to spend resources to understand and apply complex jurisdictional standards. The uncertainty surrounding jurisdictional questions has increased the paperwork, costs, and time associated with jurisdictional determinations.

Calvert Q5: What is the Agency's, or the Corps', estimate for how many additional permits will be issued under the rule?

Answer: The EPA estimates that approximately 75 additional Clean Water Act Section 404 individual permits and 1,300 additional applications for coverage under general permits would be required annually on a nationwide basis if the agencies' proposed rule were finalized in its current form. This information is documented in "Economic Analysis of Proposed Revised Definition of Waters of the United States," September 2013, which is in the docket for the proposed Waters of the U.S. rule. The agency invites comments on this document as part of the public comment period on the proposed rule.

Calvert Q6: The proposed rule defines all waters within a floodplain or a riparian area as waters of the U.S.; however, the rule does not clearly define what the boundaries would be of a floodplain or a riparian area. Recognizing that the Federal Emergency Management Agency (FEMA) spends over $100 million each year mapping floodplains, and that no federal agency maps riparian areas, what resources does EPA have to map these areas? What will the costs be to EPA if you chose to designate floodplains differently than FEMA's 100-year floodplain?

Answer: To implement this part of the proposed rule, assuming it remains in the final rule, the Corps and the EPA would use existing tools, including aerial photographs, topographic maps, USGS data, LIDAR if available, and best professional judgment to determine the appropriate floodplain or riparian area to be used in the adjacency determination. In some cases, this would require the Corps and the EPA to conduct an investigation on the property and assess field

indicators to make the determination. There is no need for the Corps or the EPA to map new floodplains or riparian areas, since a determination would only be required when a particular project might lead to a discharge within a floodplain or riparian area, and we would not request resources to do so. In the proposed rule, the agencies requested comment on a variety of issues related to the use of floodplains or riparian areas in defining adjacency, and will carefully consider public comment on these issues before finalizing the rule.

Calvert Q7: The proposed rule defines all tributaries as waters of the U.S. Federal and state governments operate water delivery systems such as the Central Arizona Project, the Central Utah Project, the California Aqueduct, and the Colorado River Aqueduct that clearly fit the rule's proposed definition as a tributary since they have a bed, a bank, an ordinary high water mark, and they conduct flow to other waters of the U.S. What will be the impact of this proposed rule on these water delivery systems? What will be the cost implications to your and other federal agencies that must regulate these systems as waters of the U.S.?

Answer: The proposed rule does not expand the existing jurisdictional reach of the Clean Water Act with respect to water delivery systems. Currently, not all water delivery systems are considered covered by the Clean Water Act, and the proposed rule will not change the status of water delivery systems.

Diesel Emissions Reductions (DERA) Grants

The DERA program is a successful, bi-partisan program that initially started with the replacement of school bus engines under the Clean School Bus program. It expanded to include the retrofitting of many other diesel engines, including construction equipment.

In 2012 the Administration proposed to eliminate the diesel emissions grants, or DERA grants. This proposal was met with significant opposition as the program provides $13 of economic benefit per Federal dollar, the retrofit technology supported by DERA reduces black carbon emissions by 90 percent and projections estimate that nearly 2,000 lives will be saved by 2017 as a result of this funding. The program has achieved real pollution reductions without the need for heavy-handed, top-down regulations along with the ability to leverage private investment three-to-one. Ultimately DERA funding was restored to $30 million in the 2012 bill. Last year, the Administration proposed to cut the grants to $6 million and the Omnibus restored the funding to $20 million. Here again in fiscal year 2015 the Administration proposes to eliminate the program.

Calvert Q8: Given the large demand for these grants and the lower fleet turnover, why has the Administration proposed to eliminate the program in FY 2015?

Answer: The EPA must make difficult choices to prioritize its activities. While the DERA grants accelerate the pace at which dirty engines are retired or retrofitted, pollution emissions from the legacy fleet will be reduced over time without additional DERA funding as portions of the fleet

turnover and are replaced with new engines that meet modern emission standards. However, even with attrition through fleet turnover, approximately 1.5 million old diesel engines would still remain in use in 2030. Ongoing projects will continue to clean the air and support jobs during FY 2015, as the Agency continues to support and administer projects that have already received funding.

At least $2 million annually has been used for a demonstration of the rebate authority for school bus replacements. This was highly successful and EPA had roughly 1,000 applications submitted in fiscal year 2012.

Calvert Q9: In what way is the rebate model a more efficient or preferred approach to the old system of direct grants to states?

Answer: The Diesel Emissions Reduction program has provided immediate emission reductions from existing diesel engines to communities across the nation through engine retrofits, rebuilds and replacements; switching to cleaner fuels; idling reduction strategies; and other clean diesel strategies. To date, the program has awarded grants to over 600 communities and States to reduce nitrogen oxides (NOx) and particulate matter (PM), which contribute to serious public health problems.

In FY 2013, the Agency piloted a new approach that utilizes a rebate program to target specific fleets. Of the FY 2012 funding, $2 million was used for a demonstration of the rebate authority for school bus replacements, and EPA received over 1,000 applicants requesting over $70 million in funds to replace more than 2,800 older diesel buses. Of those, 28 communities were selected and 76 older buses were replaced with new post- model-year 2010 clean buses. Benefits of the rebate approach were simplicity and efficiency for the applying fleets and a time savings of an average of 18 months over typical grants. In addition, through the rebate mechanism, the Agency is able to precisely target funding toward the dirtiest, most polluting engines in specific locations. Certain bands of engine model years and pollution control strategies yielding the most cost-effective emissions reductions can be specified.

Grants, on the other hand, promote capacity-building at the local level while also trying to hone in on the most cost-beneficial projects. The direct grants to States are best utilized to retrofit a whole fleet of diesel-powered vehicles. The Agency believes that both grants and rebates have played an important role in eliminating emissions from engines in the diesel legacy fleet.

Stormwater

The 2013 proposed updated MSGP permit seems to indicate that the Agency is moving away from using the traditional best management practice methodology and encouraging the use of numeric effluent limits. Many permitted businesses have expressed serious concerns with this national movement. Also, Individual state permitting authorities have indicated that EPA headquarters has encouraged them to adopt numeric effluent limits instead of relying on BMPs to control stormwater pollutants.

Calvert Q10: Can you please comment on the proposed permit? What is EPA's plan for continued measurement of stormwater pollutants under the National Pollutant Discharge Elimination System (NPDES)?

Answer: EPA proposed the reissuance of the Multi-Sector General Permit (MSGP) on September 27, 2013, and is currently considering the comments it received. The proposed permit contains essentially the same effluent limits as the previous versions. These effluent limits require the implementation of technology-based controls (i.e., best management practices or BMPs). When EPA issues an effluent limitation guideline (ELG) or a New Source Performance Standard (NSPS) that applies to stormwater discharges, such requirements must be incorporated into the permit. Newly applicable to this MSGP is the Airport Deicing ELG, which contains a numeric effluent limitation for urea, an infrequently used runway deicer. As explained in the final ELG, EPA expects that in most cases operators would choose to substitute a non-urea based deicer, as such substitutes are readily available at reasonable cost, and thus avoid the need to comply with the numeric limit. No other new numeric limits have been proposed. The proposed MSGP included the same monitoring requirements as in previous versions (save for adding a saline receiving water correction), but EPA did solicit comments on modifying these requirements. One of the carryover monitoring requirements affects facilities that discharge to impaired waters. These facilities must take a yearly sample for the pollutant(s) that cause the impairment. The MSGP's other main monitoring requirement, affecting about half of all EPA's industrial permittees, involves "benchmark" monitoring. If the four-sample average level of a specific pollutant exceeds a benchmark level, the facility must evaluate its BMPs to determine if adjustments can be made to lower the level of the pollutant. Exceedance of a benchmark level is not a permit violation. The MSGP also includes provisions that allow permittees to discontinue monitoring.

Calvert Q11: EPA has recently proposed to require NPDES regulated industries to submit stormwater permits electronically to permitting authorities. What safeguards is EPA considering to ensure that this data, which will be available to the public, is not used to fuel frivolous legal action?

Answer: The proposed NPDES Electronic Reporting rule is an important milestone for the NPDES program and will save time and resources for permittees, states, tribes, and EPA while improving compliance and providing better protection of the Nation's waters. The proposed rule will require facilities seeking permit coverage under a general permit to electronically file a Notice of Intent (NOI), which will enable states to more efficiently process these forms. Facilities seeking an individual NPDES permit will not need to electronically submit their application. It is important to note that the efficiencies created by the proposed rule do not change the public nature of the data on these NOIs or individual permit applications. In particular, the proposed rule does not add any new reporting requirements or change the public nature of the data. Data on NPDES permit applications are publicly available pursuant to CWA section 402(j), 33 USC 1342(j), which requires that "[a] copy of each [NPDES] permit application and each [NPDES] permit ...be available to the public. Such permit application or permit, or portion thereof, shall further be available on request for the purpose of reproduction." In addition, CWA section 402, 33 USC

1342(a)(1), (b)(3), requires that any permits only be issued following a public hearing, and that states implementing NPDES programs provide for "public ... notice of each application for a permit and [] provide an opportunity for public hearing before a ruling on each such application." Consequently, there are no restrictions to these NPDES permit application data, and electronic reporting itself has no bearing on the availability of the data to the public. In addition, the EPA requested comment in the proposed rule on the issue of how best to satisfy these disclosure requirements in the context of electronic reporting and will carefully consider public comment before finalizing the rule.

Calvert Q12: In the proposed electronic reporting rule the Agency offered the possibility of a second rulemaking to address these very concerns. What is the status?

Answer: In the proposed NPDES Electronic Reporting Rule, the Agency gave notice that it might open up a second comment period. This supplemental notice would be an opportunity for the EPA to identify issues, clarify elements of the proposed rule, and discuss options for how the EPA might modify the rule to address issues raised by stakeholders in response to the Notice of Proposed Rulemaking. The Agency anticipates the release of this supplemental notice later this summer.

Calvert Q13: When Agencies enter into voluntary settlement agreements with private parties to issue specific rulemaking requirements, the practice severely undercuts public participation in the process. What voice does the public have prior to EPA agreeing to the terms of a settlement agreement, and does the Agency believe that this is sufficient? How does the Agency ensure public participation under the terms of a settlement agreement?

Answer: Each settlement agreement is the result of a negotiation between opposing parties, with the Department of Justice (DOJ) representing the Environmental Protection Agency (EPA) and the interests of the United States. In many cases, the agreements also go out for public comment, and are entered by a court only upon a finding that the terms are fair, reasonable, and in the public interest, and that the overall resolution is consistent with the underlying statute and allegations.

The EPA does not and will not commit in a settlement agreement to any final, substantive outcome in a rulemaking or other decision making process. Rather, in EPA rulemaking, there is an extensive and robust public process, designed specifically to provide for input and participation. The Administrative Procedure Act (APA) requires the Agency to provide public notice and an opportunity for comment on all proposed rules. This opportunity to comment is open to any interested party and comments submitted are carefully considered and often significantly shape the final rule. It is after the conclusion of that public process that Agency would publish a final rule.

Bristol Bay/Pebble Mine Watershed Study

For the past few years the Committee had been asking for information -- for a table -- that shows how much the Agency has spent on the Pebble Mine/Bristol Bay watershed study. This study was not directed by Congress and the Agency had not requested funding from Congress to conduct the study. Last year EPA provided a table in response to questions for the record, indicating that $2.4 million had been spent between fiscal year 2011 and 2013 on the watershed assessment.

The Agency's response also indicated that budget requests from fiscal year 2011 to 2014 did not explicitly identify resource levels for the Bristol Bay work. The Agency response also indicated that since the project was funded within existing authority and appropriated funding, that EPA did not need to identify an offset or request a reprogramming from Congress in order to undertake the work.

Calvert Q14: The budget justification highlights the amount of funding for several other studies and funding for hundreds of other activities. Why has this study not been identified in prior budget justifications? Why has this study been treated differently from those other programs?

Answer: Funding for watershed studies, such as the Bristol Bay Watershed Assessment, is included in the *Wetlands, Surface Water Protection,* and *Research: Safe and Sustainable Water Resources* program/projects (FY 2014 justifications beginning on p. 529, p. 553, and p. 157, respectively). The EPA has broad authority to conduct this type of work under CWA Section 104.

Assessments of watershed research, including Bristol Bay, are encompassed in general congressional justification language. For example, the following language is included in the Research: Safe and Sustainable Water Resources FY 2014 President's Budget justification language:

> "Developing approaches to assess watershed integrity, resilience and restoration potential by establishing key watershed indicators;
> Using a systems-based approach to investigate methods for sustaining water quality in watersheds;
> Continuing to study the social, economic, human health and environmental impacts of water quality degradation;"

Calvert Q15: How much funding has been spent in fiscal year 2014 on the Bristol Bay assessment? Please provide an update to the table that the Agency provided for the record last year that includes any FY14 amounts?

Answer: The EPA coordinated with federal, state, and local partners to conduct a comprehensive scientific analysis of the Bristol Bay watershed to better understand how future large-scale mining may affect water quality and the Bristol Bay salmon fishery. The EPA issued a final assessment on January 15, 2014. Although the assessment was released in January 2014, assessment activities were completed in March 2014, including final formatting and the release of over 1,100 pages of responses to public comments of the draft reports.

As of May 2014 (Non-payroll Dollars in Thousands):

Appropriation Account	Program Area	Program/Project	FY 2011	FY 2012	FY 2013	FY 2014	Total**
EPM	Water Quality Protection	Surface Water Protection	$123	$247	$247	$26	$644
EPM	Water: Ecosystems	Wetlands	$734	$331	$110	$ -	$1,175
S&T	Research: Safe and Sustainable Water Resources*	Research: Safe and Sustainable Water Resources	$8	$363	$504	$88	$962
S&T	Research: Chemical Safety and Sustainability	Human Health Risk Assessment	$ -	$ -	$ -	$11	$11
Total:**			**$865**	**$941**	**$861**	**$125**	**$ 2,792**

* EPA's Research and Development program changed its budget structure in FY 2012. Resources associated with the old structure have been consolidated into the new structure.
** Totals may not add due to rounding.

Calvert Q16: Has the Agency requested funding in the fiscal year 2015 budget for the Bristol Bay assessment? If so, please provide a reference to where the funding is requested in the FY15 congressional justification.

Answer: No, the Agency's FY 2015 request does not include funding for the Bristol Bay assessment because it was completed in January 2014.

Hydraulic Fracturing Study

There is concern that the hydraulic fracturing study that EPA has been working on now for over four years has gone beyond Congressional intent and has expanded in scope. The request from this Subcommittee in FY 2010 was for EPA to determine whether there is a link between hydraulic fracturing and drinking water. Yet four years and $25 million later, the Agency has developed several new research areas and may have more than thirty separate reports as part of this study. Rather than a study, this now seems to be an entire research program within the Office of Research and Development.

Calvert Q17: EPA's FY 2015 budget requests an additional $6.1 million for the study to determine whether there is a relationship between drinking water and hydraulic fracturing. Why is the $25 million that EPA has received to date an inadequate amount to complete the study?

Answer: The study scope was designed to meet Congress' request and was established in November 2011 in the *Plan to Study the Potential Impacts of Hydraulic Fracturing on Drinking Water Resources*, after public comment and peer review by the Science Advisory Board. The scope has not changed since the release of the final study plan.

The *Study of the Potential Impacts of Hydraulic Fracturing for Oil and Gas on Drinking Water Resources* is national in scope and very complex. The study uses a transparent, multidisciplinary research approach with significant stakeholder engagement and peer review. The FY 2015 President's Budget requests $6.1 million to complete the assessment report as requested by Congress.

Calvert Q18: If the draft study is expected to be released in December 2014, then EPA's primary responsibility will be to respond to comments in FY15. Will it require $6.1 million to respond to comments?

Answer: The *Study of the Potential Impacts of Hydraulic Fracturing for Oil and Gas on Drinking Water Resources* is national in scope and very complex. The careful and intensive review and synthesis of literature, research results, and stakeholder input, along with the recently intensified state outreach effort, will ensure that EPA's draft science assessment is as robust and complete as possible. We expect to release the draft assessment report for public comment and peer review by early 2015. The EPA then expects to provide a final report that is responsive to comments received from the public and the peer review.

Calvert Q19: In FY 2010, the subcommittee requested two other studies that were both completed within two years and for less than $1 million each. Those also were complex studies on Black Carbon and on the economic impacts of the Category 3 Marine rule on the Great Lakes. Why has this hydraulic fracturing study been so much more expensive for the American taxpayer and taken twice as long?

Answer: The EPA believes a transparent, research-driven approach, with significant stakeholder involvement can strengthen our clean energy future and public confidence in responsible energy development. The *Study of the Potential Impacts of Hydraulic Fracturing for Oil and Gas on Drinking Water Resources* is national in scope and very complex. It uses a multi-disciplinary research approach to assess the potential for hydraulic fracturing for oil and gas to impact the quality or quantity of drinking water resources. The results of the study will be presented in the draft assessment report, which will synthesize results from the EPA's original research with a broad literature review and information submitted by stakeholders through extensive stakeholder outreach. The Economic Impacts of the Category 3 Marine Rule on Great Lakes Shipping report was classified as an Influential Scientific Information (ISI). It was developed by the Office of Air and Radiation's (OAR's) Office of Transportation and Air Quality.

The Black Carbon report also was classified as an ISI. It was prepared by OAR's Office of Air Quality Protection and Standards. An important distinction is that these two reports were not research. The Report to Congress on Black Carbon specifically states that they used existing scientific information.

Unlike the other two referenced studies, the draft assessment report is a Highly Influential Scientific Assessment (HISA) and the EPA is adhering to a rigorous, transparent peer review of the conclusions of the study. As a HISA, the draft assessment report and its underlying data will receive meaningful and timely peer review in accordance with the EPA's peer review handbook.

There is also concern that the study will be released before there is a peer review by the Science Advisory Board. It is my understanding that EPA plans to release the study to the public at the same time it is submitted for peer review.

Calvert Q20: What is the current timeframe for the SAB peer review and for the release of the study?

Answer: The EPA expects to provide the draft assessment report of the *Study of the Potential Impacts of Hydraulic Fracturing for Oil and Gas on Drinking Water Resources* for public comment and peer review by early 2015. The EPA then expects to provide a final report that is responsive to comments received from the public and the peer review.

The EPA customarily makes a draft report available for comment at the same time it is submitted for peer review by the Science Advisory Board (SAB). With reference to Highly Influential Scientific Assessments, Section III(5) of OMB's *Final Information Quality Bulletin for Peer Review* states that: "Whenever feasible and appropriate, the agency shall make the draft scientific assessment available to the public for comment at the same time it is submitted for peer review (or during the peer review process)."

Rural Water Technical Assistance Grants

The 2012 Omnibus included $15 million to establish a competitive grant program wherein entities that provide technical assistance to small or rural water utilities, or to private well owners, have an opportunity to compete for funds to assist these communities with understanding and complying with EPA water regulations. EPA has not included funding in the President's budget for these grants, and it seems that the Administration is prioritizing accelerated regulation over working with communities to understand their needs and challenges. It also seems like the Administration is cutting successful, bi-partisan programs knowing that Congress will restore the funding. In doing so, this allows the Administration to propose other new programs that we just don't have the funding to pay for in a constrained budget environment.

Calvert Q21: Why is it not a top priority for the Administration to fund these technical assistance programs that help communities keep up with, and understand the impacts and requirements in the EPA's water regulations, particularly as the Agency continues to propose more regulations?

Answer: Assisting small and rural communities in compliance with water regulations is very much a priority for this Administration. EPA's FY 2015 budget does request $757 million for the Drinking Water State Revolving Fund (DWSRF) program, which can be used to provide special assistance to systems serving 10,000 or fewer customers. For example, States are required to provide a minimum of 15 percent of the funds available for loan assistance to small systems to help address infrastructure needs.

In addition, the Agency strongly supports state use of Public Water System Supervision (PWSS) funds and the Drinking Water State Revolving Fund 2 percent small system technical assistance set-aside to provide assistance to small and rural water systems. The 2 percent DWSRF set-aside is used by nearly every state to support their small systems and several states use these funds for non-profit state affiliates.

EPA's small system approach works to focus state and Federal technical and infrastructure resources to assist small and rural water systems. The Agency continues to believe that states are best positioned to develop technical assistance plans for their water systems and the funds available via the DWSRF and PWSS grants allow them to do so.

e-Enterprise and e-Manifest

In order to assist in the workforce transition, EPA has proposed a $61 million e-Enterprise initiative, which offers a menu of technological options for increasing efficiency with States and the regulated community. The Subcommittee will want to hear from both the States and business community in order to better understand how this initiative may help them reduce their reporting burden and meet various legal requirements. It is also critical that Congress understands the three- or five- year plan for these investments.

Calvert Q22: In a constrained environment, what may be the top two or three e-Enterprise projects that would produce the greatest immediate return on investment? In what ways would States, EPA or the regulated community realize those benefits?

Answer: E-Enterprise is a new business model that will modernize our nation's environmental programs. While the basic intent is to allow electronic transactions, streamlined implementation and reduced costs for all, the more important foundational principle is following a new joint decision making process with states to reduce duplication through coordinated investments and economies of scale. A further benefit is increased transparency as the public will have access to real time data about their environment and industries will be able to save money as they may be able to monitor their operations at a lower cost and find ways to capture lost product or feedstock chemicals that were escaping as pollution. It will modernize a full range of interactions between industry, EPA and states.

It is vital that EPA make an initial time investment in conducting a cross-state, cross-program and interagency analysis to identify the best practices and technologies that states already have in place and to understand the specific challenges of individual states and regulated communities. E-Enterprise should not be a menu of independent technological investment options, but rather a coordinated effort to manage a portfolio of what are inherently interrelated investments.

The initiative aligns the Agency with federal-wide policy initiatives for regulatory and technological reform. Source regulations are being evaluated at both the federal and state levels with the explicit intent to reduce burdens on the regulated community and the agencies. Existing processes and systems are being evaluated for best practices, and the best will be promoted or further developed as shared services with the intent to optimize resources for all involved. Program offices will be required to use shared services when possible, and investments will be prioritized for those systems that have the highest potential to reduce burden and effect cost savings.

Through joint governance and joint program analysis, the EPA, states and tribes are well along in this process of looking across the federal and state enterprise of environmental protection and systematically identifying opportunities for efficiency gains and burden reduction. The following are examples of work already underway where E-Enterprise will have an immediate, quantifiable impact:

1. Data collection under the National Pollution Discharge Elimination System (NPDES) contributes over 21 million hours of burden. The program is one of the foundational projects that is aligning with E-Enterprise, and the improvements and expansions to their system will help to reduce that overall burden by 914,000 hours annually. Conversion of NPDES discharge data to e-reporting will save states about $29 million annually.
2. Consolidation and simplification of fuels reporting by industry under the Office of Air and Radiation. Through improved fuel electronic reporting, industries will save 170,000 hours annually. EPA will transform 66 reports to a single web-form report.
3. Implementation of electronic manifest program (E-Manifest) for industries transporting hazardous wastes that are regulated under RCRA. EPA estimates that the e-Manifest system will reduce the reporting costs to manifest users by more than $75 million per year over the current paper-based manifest system.

While these projects are getting underway and organizational processes are being formalized, the EPA, states, and tribes have been identifying the next set of opportunities for immediate progress. In FY 2014 the states and EPA started an evaluation of a set of joint programs and projects that would yield the highest return on investment and contribute to the strategic goals of E-Enterprise. Over 80 projects were brought forward by the states and agencies for consideration. Selection of the highest priority projects is imminent and implementation can commence in FY 2015.

Calvert Q23: The e-Manifest system will significantly reduce paper recordkeeping costs in the regulated community for hazardous wastes by relying on an electronic tracking system similar to what UPS and FedEx have been using for years. It is a program that should have been built long ago. However, there have always been concerns about the cost and how to pay for it. The budget proposes $10.4 million to build the system, which is greater than the original EPA estimates for the entire cost of the program (original estimate: $6-8 million). Please explain why the program is already over budget in year two?

Answer: EPA is not over budget for its e-Manifest development efforts. EPA's internal estimates in the 2013 Alternatives Analysis yielded system development costs of approximately

$16 million over three years. EPA provided that estimated cost during a June 2012 hearing before the House Committee on Energy and Commerce. In addition, in August 2012, the Congressional Budget Office estimated that over a five year period EPA would spend approximately $15 million to create the electronic e-Manifest system.

These system development costs entail developing and building the full national core transactional IT system that industry would interact with and that would maintain the mobile workflow as shipments move from one place to another. This is a complex national IT system, for approximately 160,000 hazardous waste handlers, including between 4.6 and 5.6 million manifests each year. The benefits realized from the development of an e-Manifest system are significant. EPA estimates that that an e-Manifest system will reduce the reporting costs to users by more than $75 million per year compared with costs of the current paper manifest system.

In FY 2014, Congress appropriated $3.67 million for e-Manifest and the agency is making significant progress on regulatory development and pre-system planning including developing detailed e-Manifest System technical architecture plans. The $10.4 million requested in FY 2015 President's Budget will allow the award of one or more contract(s) to initiate developing and building the national system. Maintaining the planned development schedule is essential to containing overall costs. In addition to IT system development costs (i.e. $16M 2013 Alternatives Analysis referenced above), the FY 2015 request includes personnel and extramural costs associated with developing the regulatory and Advisory Board requirements of the e-Manifest Act, which must be funded from the dedicated e-Manifest appropriation as directed by the FY 2014 consolidated appropriation act.

Calvert Q24: In fiscal year 2013, the Subcommittee approved a reprogramming to initiate work on the e-Manifest project. EPA's Congressional Justification shows that no expenditures were logged in fiscal year 2013. Why was a reprogramming necessary in fiscal year 2013 if the Agency did not intend to spend those funds?

Answer: The Agency did incur spending for the project during FY 2013, however that spending could not be attributed to the new Hazardous Waste Electronic Manifest System Fund (e-Manifest) account as the appropriation for the account had yet to be established. Instead, e-Manifest spending occurred under the existing Environmental Programs and Management (EPM) account. The new e-Manifest project account was established in 2014 with the enactment of FY 2014 Consolidated Appropriation Act.

The EPA FY 2013 Congressional Justification requested $2 million for the e-Manifest project under EPM. The FY 2013 Enacted Continuing Resolution did not provide any funding for this project. In order to move forward with the e-Manifest project, the Agency determined a Congressional Reprogramming of the EPM appropriation was necessary to enable spending for the project.

e-Enterprise and Enforcement

EPA's budget documents indicate that the Agency is "pursuing justice" for Gulf residents and EPA actions have resulted in civil penalties to "punish misconduct". This offers a window of insight into EPA's view of its relationship with the public. The Agency also notes EPA collected $2.6 billion in penalties, the highest amount ever despite fewer inspections and civil case initiations, which the Agency attributes to budget cuts. Nevertheless EPA's enforcement budget proposes 76 fewer FTE along with a $22 million increase largely for E-Enterprise activities.

Calvert Q25: On one hand this proposal reflects EPA's use of technology to increase the efficiency of EPA personnel through the E-Enterprise initiative. However, others may view the e-Enterprise initiative as an initiative to increase enforcement actions. Have regulated entities expressed support for components of the E-Enterprise initiative, beyond the broad support for the E-Manifest system? If so, please provide any letters of support or other correspondence for the record.

Answer: The E-Enterprise initiative is not designed to increase enforcement actions. Rather E-Enterprise is a collaborative initiative between the states and EPA to modernize communication on environmental performance and enhance services to the regulated community, environmental agencies, and the public. E-Enterprise will increase transparency and efficiency, develop new environmental management approaches, and employ advanced information and monitoring technologies in a coordinated effort to manage and modernize environmental programs. While industry does support moving from paper-based reporting to electronic systems, we have not yet reached out to the regulated community specifically on E-Enterprise. The states and EPA recently completed the E-Enterprise Conceptual Blueprint, which sets forth next steps, including engagement with the business community. The E-Enterprise Conceptual Blueprint can be found at http://www.exchangenetwork.net/e-enterprise/

The EPA intends to engage the public on many aspects of the E-Enterprise initiative and will seek to obtain input on instances of cumulative regulatory burden so we can focus our efforts on harmonizing source rules and streamlining the implementation of regulatory transactions. Until an outreach plan is formalized, public comments will be drawn from individual rulemakings associated with E-Enterprise projects. Selected comments from two rulemakings are included below:

One of the key pilot projects for E-Enterprise will be streamlined fuels reporting under 40 C.F.R. Parts 79 and 80. The Agency recently finalized a rule that consolidated reporting dates and committed to the development of a streamlined reporting form. Public comments from that rulemaking shown below have been extracted from the Summary and Analysis of Comments (EPA-420-R-14-004). The source document is available at http://www.epa.gov/otaq/documents/tier3/420r14004.pdf. We are not aware of any negative comments against a unified reporting form.

Chevron Products Company

Chevron supports the reduced reporting requirements for reformulated gasoline and EPA's focus on simplifying reporting to those elements critical to compliance. We strongly encourage EPA's notion of performing a comprehensive restructuring of the Part 79 and 80 regulations to improve comprehension, reduce compliance costs and simplify reporting. Identifying all of the various opportunities for consolidation and simplification would go well beyond the timing and scope of this rulemaking but we encourage EPA to immediately form a working group with industry representatives to pursue a follow-up rulemaking with the goal of proposing regulatory updates by the first quarter of 2014. [EPA-420-R-14-004, p. 6-22]

Chevron is very much in favor of EPA's proposal to align reporting dates between the various Part 80 programs and appreciates the extension of fourth quarter and annual reporting deadlines to March 31. We recommend that EPA should extend the attest engagement deadlines by an additional month from May 31 to June 30 to allow sufficient time for the significant data-gathering and back-and-forth communications required to complete those engagements. While it may be possible to begin some of this work ahead of the new reporting deadlines, it is much more effective to focus on the reporting itself before shifting to the attest activities. We believe that extending these annual deadlines will significantly reduce the risk of error and rework in annual compliance reporting. [EPA-420-R-14-004, p. 6-12]

Marathon Petroleum Company

EPA has made regulatory streamlining a priority and we appreciate the Agency's efforts. We agree that regulatory streamlining will result in more efficient and less costly compliance. We support the elimination of unnecessary and outdated provisions. These provisions are independent of Tier 3 and should be promulgated in a final rule earlier than the Tier 3 final rule. We agree with the Agency that these are straightforward and should be implemented quickly. [EPA-420-R-14-004 p. 6-1]

Phillips 66 Company

We are appreciative of the effort to streamline various portions of existing regulations. With changes over time, there are several areas that need "clean-up" and this effort will reduce confusion and burden on the regulatory parties. We offer the following comments on the proposed revisions as well as suggestions for other provisions that we feel would add value and should be considered. [EPA-420-R-14-004, p. 6-2]

Change in reporting dates – Overall, the concept of aligning the various reporting dates and being able to develop a unified and simplified reporting form is a good one. Providing additional time is beneficial. We appreciate the Agency providing this change. [EPA-420-R-14-004, p. 6-13]

Another of the key pilot projects for E-Enterprise will be the NPDES Electronic Reporting Rule under 40 C.F.R. Parts 122, 123, 127, 403, 501, and 503. The Agency published the proposed rule in the *Federal Regist*er on July 30, 2013, received and compiled 170 sets of public comments, and recently sent a draft supplemental Federal Register notice to OMB for review. Comments

received during the public comment period for that proposed rule are available from the docket, at Docket ID No. EPA-HQ-OECA-2009-0274. Several comments were supportive of the concept of electronic reporting, as reflected in the examples below:

Massachusetts Water Resources Authority (MWRA)

MWRA appreciates that the proposed rule [NPDES Electronic Reporting Rule] will allow EPA to obtain, and provide to the public, a more complete picture of NPDES discharges – one that includes small as well as large discharges. Electronic data collection has the potential to reduce the errors in ICIS-NPDES and also allow errors to be corrected in a more timely way. In summary, MWRA generally supports the idea of phased-in electronic reporting, provided data can be accompanied by qualifying comments. Document No. EPA-HQ-OECA-2009-0274-0263-A2.

Metropolitan Sewer District of St. Louis (MSD)

In general MSD supports the purpose of the rule [NPDES Electronic Reporting Rule] in moving to electronic reporting for many NPDES related activities. We agree that electronic reporting will likely provide for better data recording and management by EPA and authorized states, tribes, or territories. Some portions of the proposed rule will also support communities like MSD in their continued efforts in transparency and to provide the public with uncomplicated access to quality information which is free of errors due to multiple data entry points. Document No. EPA-HQ-OECA-2009-0274-0364-A2.

North East Biosolids & Residuals Association (NEBRA)

We support the overall concept of the proposed rule [NPDES Electronic Reporting Rule] and agree that, if implemented thoroughly with considerable support, it might achieve the benefits stated in the *Federal Register* discussion. The increased availability of data would serve to enhance public understanding of wastewater treatment and biosolids management...NEBRA feels that the proposed rule merits further consideration, but that the details of the proposed electronic reporting system are critically important and will determine whether or not the system is a success. Document No. EPA-HQ-OECA-2009-0274-0288-A1.

United States Steel

U. S. Steel generally supports the rule [NPDES Electronic Reporting Rule] and its goals, such as publically sharing discharge information, improving the Agency's decision making capabilities, and enhancing Agency resources through minimizing expenditures for monthly reporting. Document No. EPA-HQ-OECA-2009-0274-0268-A2.

Monthly Reports on Section 404 Permits

The Fiscal Year 2014 Omnibus directed EPA to report monthly on the number of Section 404 permits under EPA's review including the date received, the number of days each permit has been under review, the ''DA number'', the permittee, the project name, the permit type, geographical information (county and State), and where action was taken on a permit the report should include

disposition of each permit, and the date issued or remanded. The information requested aligned with a table the Agency provided following the FY13 budget hearing when a table was requested by the Committee. Nevertheless, the Agency has yet to submit the required reports for February and March.

Calvert Q26: Why has the Agency failed to meet the deadlines for February and March and when will the Agency submit the required reports?

Answer: The EPA and the Army Corps of Engineers worked on this report. The first report was delivered to the Hill on May 16, 2014 and identified the permits that the EPA reviewed and commented upon in the first quarter of FY 2014.

Calvert Q27: Please provide for the record all monthly reports due to the Committee that have not been submitted as of the time of EPA's response to questions for the record.

Answer: Subsequent reports will be sent following coordination between EPA and the Corps and after OMB review.

Formaldehyde Rule/Regulation

Calvert Q28: What is the anticipated timing for completing work on the regulations for Formaldehyde emissions in composite wood products?

Answer: Since proposing the rules to implement the Formaldehyde Standards for Composite Wood Products Act (TSCA Title VI) on June 10, 2013 (78 FR 34795 and 78 FR 34820), the U.S. Environmental Protection Agency (EPA) has twice granted extensions to public comment periods for both proposals, as requested by numerous commenters. In addition, the EPA, on April 8, 2014 (79 FR 19305) reopened until May 8, 2014, the comment period for the proposed rule to implement TSCA Title VI emission standards (78 FR 34820) to seek additional public input regarding potential modifications to the Agency's proposed treatment of laminated products. The EPA also announced a public meeting, held April 28, 2014, to provide opportunity for further public comment on this set of issues. Based on input from public meeting participants, the EPA extended the comment period related to the treatment of laminated products under the regulation until May 26, 2014. The Agency will consider all information received from commenters on this subject in developing the final rule, which is expected to be made final late this calendar year.

Calvert Q29: Is the Agency's intention to harmonize EPA regulations with the California Air Resources Board (CARB) with respect to laminated products as directed by Congress? If so, why did EPA's initial proposal include laminators when California expressly exempts laminators?

Answer: The EPA is in regular communication with the California Air Resources Board (CARB) and is striving to ensure that provisions in EPA's final rule(s) are compliant with the Formaldehyde Standards for Composite Wood Products Act (TSCA Title VI) formaldehyde emission standards while aligning, to the extent possible and practical, with the regulatory requirements in California.

It is important to note that TSCA Title VI departs from CARB's Airborne Toxic Control Measure in several ways that have required careful harmonization.

The Act establishes formaldehyde emission standards for hardwood plywood, particleboard, and medium-density fiberboard that are identical to the emission standards in CARB's regulation. The Act also includes laminated products on the list of composite wood products to be regulated under TSCA Title VI, while CARB has an exemption for these products. With respect to these laminated products, Congress did provide the EPA with the authority to modify the definition of laminated product and exempt some or all laminated products from the definition of hardwood plywood pursuant to a rulemaking under TSCA Title VI, which shall be promulgated "in a manner that ensures compliance with the [statutory] emission standards."

The information available to the EPA at the time the initial proposal was issued did not indicate that laminated products would be in compliance with the emission standards, and therefore the Agency did not propose an exemption for all laminated products from the proposed regulations. The EPA did, however, propose to exempt laminated products that are made with compliant cores and laminated with "no-added-formaldehyde" resins because we concluded that such exemptions would be consistent with the statutory directive.

On April 8, 2014, the EPA re-opened the comment period for the proposed implementation rule to seek additional public input regarding potential modifications to the EPA's proposed treatment of laminated products. On April 28, 2014, the Agency held a public meeting at the EPA Headquarters in Washington, D.C. Based on a request from the public, the EPA extended the comment period for comments related to the treatment of laminated products under the regulation until May 26, 2014. The EPA will consider all information received from commenters as the Agency makes decisions on how to proceed on laminated products when preparing the final regulations.

Calvert Q30: Can the Agency assure this Subcommittee that EPA's final formaldehyde rule will not be overly burdensome to laminators?

Answer: The EPA is very sensitive to the potential impact of these requirements on the American manufacturing sector. In the development of the proposals, the EPA engaged numerous stakeholders, including small businesses, many of which served as Small Entity Representatives providing input to the Small Business Advocacy Review (SBAR) Panel for these proposed regulations. The EPA took their input, and the SBAR Panel deliberations, into account in designing the proposed exemption for laminated products.

In ongoing efforts to reach out to potentially affected stakeholders, the EPA has met and continues to meet with companies and trade associations that represent, among other members, producers of laminated products. The Agency has specifically requested data on formaldehyde emissions from laminated products in addition to seeking comments and information on the proposed definition of laminated products. As part of this effort, EPA re-opened the comment period for the proposed implementation rule on April 8, 2014, to seek additional public input regarding potential modifications to the EPA's proposed treatment of laminated products. On April 28, 2014, the Agency held a public meeting at EPA Headquarters in Washington, D.C. Based on

a request from the public, the EPA extended the period for comments related to the treatment of laminated products under the regulation until May 26, 2014. The EPA will consider all information received from commenters as the Agency makes decisions on how to proceed on laminated products when preparing the final regulations.

Radon State Grants

Tough choices need to be made when crafting a budget; however, the proposal to terminate the Radon program grants warrants a second look particularly when 21,000 lung cancer deaths are attributed annually to radon exposure.

Calvert Q31: Why has the Administration again proposed this grant program for termination?

Answer: The State Indoor Radon Grants (SIRG) program was established by Congress to fund the development of states' capacity to raise awareness about radon risks and promote public health protection by reducing exposure to indoor radon gas. After 26 years in existence, the radon grant program has increased states' technical expertise and capacity to raise awareness about radon risks and promote public health protection by reducing exposure to indoor radon gas. Eliminating the SIRG program is an example of the difficult choices the agency has made in this budget to help meet the nation's fiscal challenges. The agency will focus on driving action at the national level, with other federal agencies, through the Federal Radon Action Plan. Released in June of 2011, the Action Plan aims to increase radon risk reduction in homes, schools, and daycare facilities, as well as radon-resistant new construction. It contains both an array of current federal government actions to reduce radon risks and a series of new commitments for future action. More information about the Action Plan and its progress is available at: http://www.epa.gov/radon/action_plan.html.

Calvert Q32: If States are capable of handling delegated responsibilities for this program within their budgets, why is there a $21.5 million increase for grants to fund base state air programs, and a $25 million increase for state water programs? There seems to be a disconnect in the Agency's view that States have ample budgets to handle some programs but not others.

Answer: As you note, funding for some of the Agency's grant programs is increased in the FY 2015 President's Budget to continue prioritizing support for our state and tribal partners, the primary implementers of environmental programs. Requested increases over enacted levels recognize the importance of state partners in the progress made to provide air that is safe to breathe, water that is safe to drink, cleaner land, and safer chemicals. For example, the FY 2015 President's Budget request for increases to the state air grant programs reflect the need for states to implement Clean Air Act obligations with regard to developing plans to reduce greenhouse gases.

Over the 26 years of its existence, EPA's radon program has provided important guidance and significant funding to help states develop and implement their own programs. As state radon programs continue their work, EPA is proposing to eliminate the State Indoor Radon Grants and will focus agency efforts towards maintaining public outreach efforts, encouraging action in the marketplace, and driving progress at the federal level.

New Las Vegas Office Building

The budget re-proposes a $12 million increase to design a new building in Las Vegas to consolidate EPA's personnel. EPA's lease with UNLV is set to expire in 2015, and it is unlikely that it will be renewed. As such, EPA needs to find other space for its lab personnel. While there is a great deal of unused commercial space in Las Vegas, the Agency proposes to build a new building.

Calvert Q33: The $12 million requested for FY15 is simply to design the building. What are the anticipated construction costs?

Answer: EPA anticipates that construction for a Las Vegas laboratory will cost approximately $70.5 million.

Calvert Q34: Why propose new construction rather than reusing existing, available space?

Answer: EPA made the decision based on information provided by GSA as part of a market survey conducted within the last 2 years. GSA has stated that although GSA does not have a direct role in the construction project to meet EPA Las Vegas facility requirements, the long term nature of EPA's needs suggests that federal construction is a more cost effective solution than leasing a comparable facility. A detailed cost benefit analysis found that a consolidated facility would yield a total savings to the Agency of $15 million over 20 years in comparison to leasing space. So far no existing available space has been identified that meets EPA's specialized laboratory requirements.

Calvert Q35: Was this a recommendation included in EPA's lab study?

Answer: The option for an EPA-owned Las Vegas laboratory was included in The Lab Study. The Lab Study only considered alternatives where EPA would have an ORD laboratory in Las Vegas. The Smith Group is scheduled to issue the "EPA Nationwide Laboratory Assessment – Report of Findings" in June 2014 and the National Academy of Sciences (NAS) is scheduled to issue its report in September 2014. After receiving final input from the Smith Group and NAS, The Science and Technology Policy Council will issue a final Lab Study in the first quarter of FY 2015. Te draft report shows that moving to an EPA-owned facility will be more cost effective than leasing.

Superfund Budget

The 2015 budget proposes $1.16 billion for the Superfund program, which includes a $43.4 million increase for the cleanup programs. With this funding, the budget justification indicates that funding would initiate cleanup construction work on four to six construction projects. That would still leave 30 sites unfunded at the end of fiscal year 2015. By definition, these are the most toxic sites in the United States, so it is important that we clean these up.

Calvert Q36: The 2015 budget proposes $1.16 billion for the Superfund program, which includes a $43.4 million increase for the cleanup programs. With this funding, the budget

justification indicates that funding would initiate cleanup construction work on four to six construction projects. That would still leave 30 sites unfunded at the end of fiscal year 2015. By definition, these are the most toxic sites in the United States, so it is important that we clean these up.

Has the Agency developed estimates for what level of funding is necessary to initiate cleanup at all the unfunded sites that stand ready for cleanup?

Answer: Resources for the Superfund Remedial Program has declined from the FY 2011 enacted level of $605 million to $500 million in FY 2014, creating a backlog of 22 new projects that were ready to start construction at the end of FY 2013. With additional new projects ready to initiate construction in FY 2014, the potential backlog entering FY 2015 was projected to increase to approximately 30 projects. Since the development of the EPA budget justification, the backlog of site construction starts that was expected for FY 2015 has been reduced. This reduction is a result of settlements achieved by the EPA Superfund Enforcement Program and effective financial and project management efforts that are allowing the Agency to deobligate unused funds and redirect those funds to new construction projects in FY 2014. These efforts will reduce the unfunded new construction backlog by approximately 15-20 projects, resulting in approximately 10-15 projects lacking construction funds at the beginning of FY 2015.

The remaining 10-15 unfunded projects would need approximately $45 million to start cleanup construction. The final estimated cost to complete the construction projects range from $2 million to more than $50 million depending on the project. As with all construction projects, final costs are likely to vary as work progresses in the field.

The additional $43.4 million proposed for the Superfund Remedial Program in the FY 2015 President's Budget (for a total of $543.4 million for the Superfund Remedial program) will contribute to reducing the unfunded new construction backlog by funding approximately 4-6 new construction projects with those funds. This additional funding will also support pipeline activities such as remedial investigations, feasibility studies, and remedial designs which are critical steps prior to construction.

State Cost Share for EPA Grants

Currently States are required to provide a 20% match to grants from the Clean Water and Drinking Water State Revolving Funds, a 25% match for Alaska Native Villages and other water related implementation grants, a 40% match for most air and radon grants, and a 50% match for pesticide program implementation and pollution prevention grants.

Calvert Q37: Clearly this is an outgrowth from multiple authorizing statues enacted at various different times. From the Agency's vantage point, what are the potential pitfalls associated with harmonizing the required state match for EPA STAG grants?

Answer: Harmonizing the required state match for EPA STAG grants, depending on the required match amount, could arbitrarily increase or decrease the resources devoted to a particular program without considering the unique resource needs of each program. It should be noted that for EPA STAG grant programs eligible for inclusion in EPA Performance Partnership Grants (PPGs), the Agency is able to provide States flexibility in addressing matching share requirements. Under a PPG, States provide an aggregate match for the programs included in the PPG. This relieves a State from having to provide matching funds from each of the covered programs. Instead, if a State lacks matching funds for a particular program, but has an overmatch of State monies in another program for reasons such as the availability of additional appropriations from the State's general fund or revenue from State permit fees, it can use the overmatch to meet the PPG aggregate match.

IRIS Assessment of Inorganic Arsenic

The Consolidated Appropriations Act for 2012 directed the Agency to contract with the National Academy of Sciences (NAS) for a study of the cancer and non-cancer hazards from oral exposure to inorganic arsenic. Pursuant to that directive, EPA contracted with the NAS to provide advice to the Agency on the approach proposed for its hazard assessment of inorganic arsenic and then to conduct a peer review of the ultimate IRIS assessment. The NAS published its interim report on November 7, 2013 entitled, "Critical Aspects of EPA's IRIS Assessment of Inorganic Arsenic".

Calvert Q38: The NAS Interim Report recommends a data-driven approach for assessing multiple health effects of inorganic arsenic as opposed to the Agency's typical default approaches. In using a 'data-driven' approach, does the Agency agree that the IRIS assessment should consider all available and defensible evidence, including recent research papers, and not just data compiled by a date certain?

Answer: Yes, the Agency agrees that the IRIS assessment for inorganic arsenic will use all available and defensible scientific evidence to reach qualitative and quantitative risk assessment conclusions. A data-driven approach is consistent with the scientific principles of the Agency and only in the absence of scientific information does the Agency utilize default approaches. Further, the NAS Interim Report has provided the Agency with specific guidance regarding the approaches to be utilized in the IRIS inorganic arsenic assessment, and the Agency is committed to implementing them. In addition, the NAS recommended development of explicit and transparent stopping rules for consideration of new evidence in the recent *Review of EPA's Integrated Risk Information System (IRIS) Process* (May 2014). Therefore, EPA will conduct an update of the literature search for the arsenic assessment by July 2014 and incorporate pertinent new peer reviewed literature, as appropriate, into the revised draft assessment that will be released for public comment just prior to external peer review.

Calvert Q39: Does the Agency agree that recent scientific evidence exists for the finding of a safe threshold for low dose exposure to inorganic arsenic, particularly for cancer effects?

Answer: The Agency is currently developing the IRIS assessment for inorganic arsenic. This process involves a systematic review of all the available scientific information for health effects related to inorganic arsenic exposure and the development of qualitative and quantitative methods, as was recommended by the NAS, to determine the human health risk at low dose exposures to inorganic arsenic. At this point in the process, EPA has not yet made a determination regarding dose response issues and is committed to evaluating potential human health risks in a transparent and collaborative manner with the Agency's partners, stakeholders, and the public.

Calvert Q40: The NAS 2008 Report: "Science and Decisions: Advancing Risk Assessment," frequently referred to as the "Silver Book" recommended that EPA consider the regulatory impacts of its IRIS hazard assessments. The proposed 2010 IRIS assessment for inorganic arsenic would have driven regulatory standards below naturally occurring background levels in soil and water. At the time, many within and outside EPA were highly critical of the proposed increase in the cancer slope for inorganic arsenic. The Committee continues to be concerned that EPA's IRIS assessments should consider the "real world" regulatory and risk management implications of its hazard assessments. Will the reforms of the IRIS program result in more realistic risk values, particularly for inorganic arsenic?

Answer: EPA is confident that the enhancements to the IRIS program will result in a scientifically valid risk assessment and, subsequently, that EPA's risk management process will result in appropriate regulatory standards for inorganic arsenic. It is important that risk assessment be designed to fully address the needs of decision makers and risk managers. It is equally important that the risk management process be distinct from this characterization of health risks. The application of human health risk information, such as the inorganic arsenic IRIS assessment, for risk management purposes, is a policy decision. Issues of feasibility and cost are considerations of risk management and should not be directly driven by dose response findings. The full process presented in the Silver Book is a continuum from problem formulation through risk management with "real world" considerations considered at the risk management stage. Scientists, risk assessors, and managers inside and outside the Agency provided valuable input into the scoping and planning of the IRIS assessment for inorganic arsenic. The scoping and planning were conducted at an Agency meeting in September 2012 and a public stakeholder meeting was held in January 2013. This scoping and planning effort resulted in an Assessment Development Plan (ADP) which was submitted to the NAS in May 2013. The NAS provided a favorable review of the ADP and made further recommendations to improve the plan. The revised ADP, incorporating the NAS recommendations, was released with the inorganic arsenic literature search and evidence tables in advance of a public discussion to be held June 25-27, 2014.

Calvert Q41: What is the current projected date for posting of the draft IRIS assessment of inorganic arsenic for public review and comment?

Answer: EPA estimates it will release the draft assessment for public review and comment in late 2014 or early 2015.

IRIS Assessment of Formaldehyde

Calvert Q42: It is our understanding that EPA is organizing a workshop on formaldehyde to address critical science issues prior to the issuance of the revised IRIS assessment for formaldehyde. We/I applaud this effort to meet the directive laid out in Chapter 7 of the National Academy of Sciences' report on the prior formaldehyde IRIS assessment, which made clear that "strengthened, more integrative and more transparent discussions of weight of the evidence are needed." What is EPA doing to ensure that this workshop leads to actionable results that can support an improved, science-based assessment that balances all of the available evidence? For example, has your staff been able to secure the participation of the key experts in the areas to be discussed? Will the proceedings be made public?

Answer: As you note, the purpose of this public workshop, which was held on April 30 and May 1, 2014, was to inform the development of the IRIS assessment for formaldehyde, and the discussion focused on critical scientific issues, including the following:

1. Epidemiological research examining the potential association between formaldehyde exposure and lymphohematopoietic cancers (leukemias and lymphomas);
2. Mechanistic evidence relevant to formaldehyde inhalation exposure and these types of cancers; and
3. The influence of formaldehyde that is produced endogenously (by the body during normal biological processes) when assessing the health hazards (especially excess cancer risk) of inhaled formaldehyde.

This workshop is part of EPA's efforts to use the best available science to develop IRIS assessments and the workshop discussions will provide important information that will be useful for the development of the revised draft assessment. An agenda is available on the webpage for the formaldehyde workshop, where you can see that key experts with a range of perspectives and expertise participated (http://www.epa.gov/iris/irisworkshops/fa/index.htm). EPA solicited input from the public on topics and potential speakers for the workshop and worked with a contractor to obtain a diverse set of participants with relevant expertise. The workshop was available by webinar to heighten public access to the meeting and discussion and input was encouraged from both in person and webinar attendees. Materials from the workshop also will be made publicly available.

Calvert Q43: Given the importance of the formaldehyde IRIS assessment as a test case for IRIS reform, would EPA be receptive to contracting with the National Academy of Sciences to conduct a review of the revised draft IRIS assessment of formaldehyde to ensure that the NAS' 2011 recommendations on an earlier draft of the assessment have been fully addressed?

Answer: Full and robust implementation by the IRIS Program will continue as an evolving process with input and feedback from the public, stakeholders, the NRC committee reviewing the IRIS assessment development process, and the newly formed Science Advisory Board (SAB) Chemical Assessment Advisory Committee, which will help ensure consistency across assessments.

As the Agency has indicated previously to the committee, EPA's plan is to conduct an independent scientific peer review of the revised draft formaldehyde assessment through the SAB. In addition to the peer review, EPA will request that the SAB evaluate whether there are scientific issues raised by the NRC that have not been adequately addressed by the EPA. EPA will then determine if a second NAS review is needed. EPA agrees that the formaldehyde IRIS assessment is important and is receptive to suggestions as to how this assessment and others can be improved, including approaches for peer review.

Calvert Q44: Given that the formaldehyde assessment is in a unique position with regard to the timing set out in EPA's proposed stopping rules, will EPA continue to accept and consider new data through the comment period for the revised IRIS assessment?

Answer: The NAS recommended development of explicit and transparent stopping rules for consideration of new evidence in the recent *Review of EPA's Integrated Risk Information System (IRIS) Process* (May 2014). Consistent with these recommendations, EPA will conduct an update of the literature search for the IRIS formaldehyde assessment and incorporate pertinent new literature, as appropriate, into a revised draft assessment that is released for public comment just prior to external peer review. EPA's current plan is to update its current literature search in September 2014. After that update to the literature search, EPA's process is to add additional studies only if such studies would impact the credibility of an assessment's conclusions because such studies reasonably might significantly change the key conclusions of the assessment.

The IRIS process stopping rules are available at http://www.epa.gov/iris/pdfs/IRIS_stoppingrules.pdf. An excerpt of that text is below:

"In general, new studies can be included until a few months before an assessment is released for review. During the early review steps and before the public peer review meeting, new studies may be included, though it is important not to delay the assessment's progress by adding new studies or analyses that do not affect the assessment's conclusions. It also is important that an assessment not become out of date by repeating the early review steps."

"After peer review, the presumption shifts to not including new studies unless they have an impact on the credibility of an assessment's conclusions. Examples might be a strong new study that indicates a heretofore undiscovered health effect, or a strong new study that might change, in either direction, a major conclusion. Quantitatively, such a study would likely have the ability to significantly influence the selection of health effect or uncertainty factors for deriving a toxicity value, or to provide important mechanistic insights that would change the approach to dose-response assessment. On the other hand, a new study that merely confirms existing studies would not need to be added to an assessment that has undergone public peer review."

Design for the Environment (DfE)

Calvert Q45: EPA's Design for the Environment program, which seeks to characterize certain chemicals and products as not just safe, but "safer." How is EPA planning to align the non-regulatory DfE labeling program with its regulatory function?

Answer: EPA uses a three-part strategy for addressing potential risks from existing chemicals:

- Identifying chemicals for risk assessment and taking actions as appropriate.
- Increasing opportunities for industry to move toward using safer chemicals, such as those described in EPA's Design for the Environment (DfE) and Green Chemistry programs.
- Increasing public access to data on chemicals that have been developed by EPA or provided by industry.

This multi-pronged strategy works to comprehensively address and ensure the safety of chemicals. The Toxic Substances Control Act provides the basis for EPA's chemicals management regulatory program and for the existing chemicals that are legally allowed in U.S. commerce. DfE, a voluntary program, is designed to recognize leadership in chemical safety.

EPA uses risk assessment under TSCA in a regulatory setting to manage chemical risks by setting levels at which exposure to a given chemical poses an acceptable risk. More specifically, under TSCA's Section 5 authority for new chemicals, EPA utilizes a range of actions to prohibit or limit the use of a chemical if EPA determines that the substance may present an unreasonable risk of injury to human health or the environment. EPA's DfE Program uses hazard assessment to identify the safest chemicals that can cost-effectively satisfy a functional need. The voluntary DfE program promotes innovation, and helps consumers and institutional purchasers quickly identify products that are safer for their customers, children, and pets.

The DfE program successfully works in partnership with industry and other stakeholders to recognize innovation in the design and use of safer chemicals. It is our experience that most companies that manufacture chemical-based products want to use the safest possible high-performing chemical ingredients. The DfE Safer Product Labeling Program also empowers consumers to make informed choices about safer household and cleaning products.

Calvert Q46: DfE's product ecolabeling program encourages the reformulation of certain consumer products, but perhaps without regard to society-wide impacts on clean air and water if products as they are made differently. How does EPA consider the full environmental impacts of "safer" or "greener" products, and that net impacts on human health and the environment are in fact lower?

Answer: For 15 years, the EPA's Design for the Environment (DfE) Program has applied the Agency's expertise in chemicals, toxicology, and environmental science to evaluate chemical formulations and allow use of the DfE label on products that perform well and contain the safest possible ingredients. All labeled products must meet DfE's highly protective Standard for Safer Products and stringent component-class criteria. The DfE scientific review team evaluates each ingredient for potential human health and environmental effects based on the best currently available scientific information, EPA predictive models, and expert judgment, to ensure that candidate products contain only ingredients that are among the safest in their functional class. DfE also has continuously strengthened the life cycle aspects of its review, focusing on chemical exposures during use and end-of-life, the "hot spots" in the life cycle of chemical-based

products. In addition to protecting human health, the requirements of the DfE standard protect wildlife and aquatic organisms. DfE's standard also includes requirements for other important areas that impact clean air, like volatile organic compounds. The program includes a first-of-its-kind ingredient disclosure provision that will make the safer chemistry aspects of labeled products more visible and valued. DfE has now labeled about 2,500 safer products for a wide variety of consumer, institutional, and industrial uses.

New Source Performance Standards and CCS

In the proposed New Source Performance Standard rule for new electricity plants, the Agency states that the proposed standard for a new natural gas combined cycle power plant (1000 pounds of CO2 per megawatt hour) is being met by over 90% of those types of plants in operation today.

Calvert Q47: How many coal power plants in operation today can meet the proposed standard (1,100 pounds of CO_2 per megawatt hour) for new coal power plant?

In previous EPA testimony, the Agency says the proposed standards for a new coal power plant "reflect the *demonstrated performance* of efficient, low carbon technologies that are currently being used today."

Answer: The EPA proposed a New Source Performance Standard for CO_2 emissions from fossil fuel fired Electric Generating Units (EGUs). EPA based this standard on the proposed determination that new efficient generating technology implementing partial carbon capture and storage technology (CCS) is the best system of emission reduction adequately demonstrated (BSER) for those sources. EPA based this determination, in turn, on a review of existing projects that implement CCS, existing projects that implement various components of CCS, planned CCS projects, and scientific and engineering studies of CCS. The major components of CCS have been demonstrated. In addition, they have been in commercial use for years. For example, the Dakota Gasification Company's Great Plains Synfuels Plant in Bismarck, ND, has been demonstrating "partial CCS," capturing 50% of the CO_2 from a coal gasification plant, compressing and transporting it through a 205 mile pipeline to oil fields, and then selling it for enhanced oil recovery (EOR) for over ten years. According to the District Court holding referenced in the proposed rule (Portland Cement Ass'n v. Ruckelshaus, 486 F.2d 375 (D.C. Cir. 1973), a standard of performance is "achievable" if a technology can reasonably be projected to be available to new sources at the time they are constructed that will allow them to meet the standard.

Calvert Q48: Are there any full-scale coal power plants currently operating in the US that are using Carbon Capture and Sequestration (CCS) technology?

Answer: The technologies for all the major components of CCS – capture, transportation, and storage – are available, integrated, and proven. For example, AES Warrior Run in Cumberland, Maryland, is currently capturing carbon pollution. There also are large-scale, coal-fired industrial facilities capturing millions of tons of carbon pollution today, such as Dakota Gasification Company's Great Plains Synfuels Plant and others.

Calvert Q49: To be clear, while CCS components have been developed, are there any electric generating plants using a fully integrated CCS system in practice? If not, how does the Agency explain proposing a standard without knowing whether it is achievable in practice?

Answer: A large-scale commercial project, Air Products in Texas, has been successfully capturing CO_2 from Steam Methane Reformers with EOR for over a year. Other fully-integrated coal gasification and conventional large-scale coal-fired power plants are under construction and scheduled to come online, as early as the end of this year, that will capture carbon pollution (for example Southern Kemper and the Boundary Dam). The legal standard for "achievable" technologies applied by the proposed rule requires that the BSER technology can reasonably be projected to be available to new sources at the time they are constructed that will allow them to meet the performance standard.

Calvert Q50: When EPA evaluated whether the costs of electricity from a new power plant using CCS is reasonable, did EPA rely on the cost of the technology at its current status as an emerging technology for power plants or what the costs are projected to be when CCS reaches the status as a fully mature technology?

Answer: The EPA analyzed many sources of information when choosing to propose that partial CCS is the best system of emission reduction (BSER) for new fossil fuel-fired utility boilers. That analysis included work completed by DOE's National Energy Technology Laboratory (NETL) that supported the feasibility of partial capture, but it also included the review of existing commercial scale facilities using CCS technology and the diverse methods for capturing CO_2 (e.g., the Dakota Gasification Company's Great Plains Synfuel Plant and Coffeyville Resources Ammonia Fertilizer Complex), pilot scale plants using CCS technology (e.g., American Electric Power's (AEP) Mountaineer Plant and Southern Company's Plant Barry), and planned facilities using CCS technology (e.g., Southern Company's Kemper County Energy Facility, the Boundary Dam Project, the Texas Clean Energy Project, the Hydrogen Clean Energy California Plant). After reviewing many reports, studies, projects, and stakeholder input, the EPA determined partial capture of CO_2 best meets the requirements for BSER. It ensures that any new fossil fuel-fired utility boiler or Integrated Gasification Combined Cycle (IGCC) unit will achieve meaningful emission reductions in CO_2, and it also will encourage greater use, development, and refinement of CCS technologies. CCS technology has been adequately demonstrated and its implementation costs are reasonable.

Calvert Q51: Is there a difference in cost between CCS in its current status and when it reaches status as a fully mature technology?

Answer: Costs are reasonably expected to be higher for "first-of-a-kind" projects; however, we expect that the types of coal projects with CCS that are moving forward today will help further lower costs of CCS technology for future plants.

Calvert Q52: The Department of Energy testified recently that early stage deployment of CCS for new power plants would increase the costs of wholesale electricity by approximately "70 to 80 percent." This testimony came from Mr. Julio Friedmann, Deputy Assistant Secretary who is an expert in CCS technologies. What has the Department of Energy told EPA about how long

will it be before CCS is considered a fully mature technology and cost competitive for power plants?

Answer: The incremental costs cited by DOE vary by the method of capturing considered and are estimates for costs at a particular plant relative to another plant. However, increases or decreases in cost at a particular plant do not significantly change retail prices paid by consumers, which are derived based on the cost of generation and transmission across the power system. The standards we have proposed can be met using partial CCS and are not expected to have a significant impact on electricity rates across the country.

The EPA's assessment of partial capture CCS found that:

- For a new supercritical pulverized coal (SCPC) power plant, the change in the levelized cost of electricity (LCOE) ranges from a decrease of $4/MWh (4%) with a relatively high market value for enhanced oil recovery (EOR) to an increase of $18/MWh (20%) assuming no market for EOR. It is important to note that the climate and co-benefits associated with partial CCS on SCPC ranges from $16-$22/MWh (assuming 3% Social Cost of Carbon (SCC)).

- For a new integrated gasification combined cycle (IGCC) facility, the change in the LCOE ranges from no difference in cost with a relatively high market value for EOR to an increase of $12/MWh (12%) assuming no market for EOR. The climate and co-benefits associated with partial CCS on IGCC is approximately $7.5/MWh (assuming 3% SCC).

Again, these figures are estimates for changes in the cost of electricity for new SCPC and IGCC facilities and are not estimates of changes in electricity prices paid by consumers. The Regulatory Impact Analysis (RIA) and other documents associated with this rulemaking can be found here: http://www2.epa.gov/carbon-pollution-standards/2013-proposed-carbon-pollution-standard-new-power-plants.

Perchlorate

It is the Committee's understanding that the EPA Office of Water continues to pursue the establishment of a maximum contaminant level for perchlorate under the Safe Drinking Water Act despite the National Academy of Sciences determination that exposure to perchlorate at environmental levels has little to no effect on humans and previously Agency determinations (OW and OIG) that perchlorate fails to meet the criteria for regulation under the Safe Drinking Water Act.

Calvert Q53: Please describe for the Committee, the Office of Water's ongoing activities related to perchlorate in fiscal year 2014 and those related activities proposed within the FY 2015 budget, including those activities that assist communities with known perchlorate exposures as well as any efforts to revise the reference dose or promulgate additional regulations.

Answer: In FY 2014, the EPA is implementing recommendations from the Science Advisory Board for deriving a Maximum Contaminant Level Goal (MCLG) for perchlorate. In accordance with the Safe Drinking Water Act, EPA requested comment from the Science Advisory Board (SAB) prior to proposing an MCLG and National Primary Drinking Water Regulation (NPDWR) for perchlorate. In its final report (May 2013), the SAB concluded that it is important for the EPA to consider sensitive life stages explicitly in the development of an MCLG for perchlorate. The SAB found that the most sensitive life stages are the fetus, neonates, and infants because these are the stages when thyroid-dependent brain development occurs. In addition, the SAB recommended that the EPA, ". . . derive a perchlorate MCLG that addresses sensitive life stages through physiologically-based pharmacokinetic/pharmacodynamic (PBPK) modeling based upon its mode of action rather than the default MCLG approach using the RfD and specific chemical exposure parameters." EPA is collaborating with the FDA to implement the SAB recommendations.

In FY 2015, the EPA intends to complete PBPK modeling activities and conduct a peer review of the model. In addition, the Agency plans to conduct analysis of the best available science on occurrence, analytical methods and treatment technologies to remove perchlorate from drinking water, and associated costs and benefits.

Currently there is no drinking water regulation for perchlorate. However, to assist communities with known perchlorate exposures, the EPA released an interim health advisory to help states and water systems address perchlorate in drinking water.

Pesticide Registrations

The Pesticide Registration Improvement Renewal Act of 2012 increased the minimum appropriated funding level required in order to allow EPA to collect registration service fees. However, since then the Committee has waived the minimum level to allow the pesticide program to continue to collect fees under tighter budgets.

Calvert Q54: Under the 2012 Act, what is the expectation for the percentage of the program that would be funded through appropriations vs. the percentage of the program funded through fees? Please provide a table with an annual breakdown. Please also include the actual percentages for FY13 and FY14 based on the final appropriations and fees collected. Please also include the proposed percentage under the FY15 President's budget.

Answer:

FY	PRIA Fees Collected	Maintenance Fees Collected	Appropriations	% of Program Funded by Appropriations
2013	$15.2M	$27.015M	$121.8M	$121.8/$164.015 = 74%
2014	$15.4M[1]	$28.032M (as of April 9, 2014)	$122.1M	$122.1/$165.532 = 74%
2015	$15.4M1	PRIA requires $27.8M	$122.1M[2]	$122.1/$165.3 = 74%

[1] At this time, the amount of PRIA fees that will be collected in FY'14 and FY'15 is unknown. We have used the average annual PRIA fees collected over the past five years (FY'09 – FY'13) as an estimate of PRIA fees to be collected in FY'14 and FY'15.
[2] We have assumed the same amount of appropriated funds in FY'15 as was appropriated in FY'14.

Calvert Q55: Has EPA been able to meet the timelines for pesticide review included in the PRIA reauthorization? How does this compare to actions under PRIA-I or PRIA-II?

Answer: No, during the 3.5 years of PRIA-1 (FY'04 – FY'07), the on-time completion rate was 99.9%. During the five years of PRIA-2 (FY'08 – FY'12), the on-time completion rate was 99.3%. In FY'13 (the first year of PRIA-3), the on-time completion rate fell to 98.8% due to personnel furloughs. We expect that the partial government shutdown of October 2013 will have a significant impact on our FY'14 on-time completion rate, and we will evaluate that impact after the fiscal year ends on September 30, 2014. Below is a table containing the total number of actions completed and the number of those actions completed late under PRIA-1, PRIA-2, and PRIA-3.

	FY's	**# of completed actions**	**# of actions completed late**	**% on time**
PRIA-1	FY'2004 – FY'2007	4,273	3	>99.9%
PRIA-2	FY'2008 – FY'2012	7,892	55	99.3%
PRIA-3	FY'2013	2,084	25	98.8%

Calvert Q56: What were the minimum appropriation levels required under PRIA-I and PRIA-II?

Answer:

- For PRIA 1 (FY'04 – FY'07) the minimum appropriations trigger was $122.4 million;
- For PRIA 2 (FY'08 – FY'12) the minimum appropriations trigger was $122.4 million;
- For PRIA 3 (FY'13 – FY'17) the minimum appropriations trigger is $128.3 million.

[For both PRIA 1 & PRIA 2, the minimum appropriations level was pegged at the FY 2002 level ($126.2 million) with a COMPLIANCE clause that stated that EPA would be considered in compliance with the minimum appropriation level if that level was no more than 3% less than the FY 2002 appropriation level. PRIA-3 minimum appropriation level is pegged at the FY 2012 level ($128.3 million) and there is no COMPLIANCE clause.]

Title 42 Authority

EPA budget documents indicate that 23 Title 42 employees are on-board with an additional 12 recruitments underway.

Calvert Q57: When does the Agency estimate that all 12 recruitments will be on-board?

Answer: EPA estimates that all 12 recruitments will be on-board in the first quarter of FY 2015.

Calvert Q58: How does EPA's use of Title 42 authority compare and contrast to other agencies that utilize special Title 42 authority?

Answer: In 2010, the National Academies of Science's National Research Council reviewed EPA's Title 42 program. The Council commended EPA's prudent management of its Title 42 authority. It observed that Title 42 is helping EPA achieve its mission, identify and hire outstanding candidates, and retain top scientists; and it noted how Title 42 has enabled EPA to build new capacity and advance the state of science. The Council recommended that EPA be granted permanent Title 42 authority without a defined number.

In addition to the National Academies of Science's review, in 2012, the Government Accountability Office (GAO) assessed EPA's Title 42 program. The report highlighted that EPA has followed its policies and guidance in operating its Title 42 program. GAO also recognized that EPA incorporated modifications to its policy and guidance based on the recommendations made by the National Academies of Science's 2010 report.

Title 42 authority provides EPA with flexibility in hiring and pay and has allowed the Agency to more effectively compete with academia and private industry for top scientific and engineering talent. As a result, this authority has allowed EPA to make strides in the computational toxicology, risk assessment, and air pollution arenas. It is important to note that other federal agencies successfully use this authority, at greater numbers, to address environmental and health positions.

EPEAT

EPA established the Electronic Product Environmental Assessment Tool (EPEAT) to serve a limited, but useful purpose: to allow federal purchasing managers to evaluate the relative environmental benefits of various information and communications technology products in order to make informed procurement decisions on product energy use and sustainability. Two Executive Orders and the Federal Acquisition Regulation stipulate that 95% of federal purchases of eligible products must be of devices included on the EPEAT registry. Over $60 billion of federal contracts are affected. However, the organization which runs the program is neither in the government or run by industry.

Calvert Q59: Please explain how the EPA established the EPEAT tool with the Green Electronics Council of Portland, Oregon, how the EPEAT process works, and what EPA does on a daily basis to approve, in advance, the standards that the Council adopts?

Answer: EPEAT is an easy-to-use resource for purchasers, manufacturers, resellers, and others wanting to find or promote electronic products with positive environmental attributes.

In 2002, EPA provided a pollution prevention grant to a non-profit organization, Zero Waste Alliance, to convene a multi-stakeholder group to discuss ways to reduce the public health and environmental impacts of electronic products. This group developed a draft set of environmental performance criteria for computer desktops, laptops, and monitors, and a vision for an entity that would manage a registry of products meeting these criteria. EPA then conducted a

competitive grant competition in 2005 for seed funding for implementation of the EPEAT system by a host organization. The Green Electronics Council (GEC) was awarded this grant and launched EPEAT in 2006. EPA funding ended in 2008 and GEC continues to manage implementation of EPEAT with funding from subscriber fees. GEC maintains the EPEAT website and the EPEAT product registry, and documents the environmental benefits resulting from the purchase of EPEAT-registered products. EPA no longer provides financial assistance to GEC for the maintenance of the EPEAT product registry and web site.

The EPEAT registry includes products that meet the following environmental performance standards set via voluntary consensus based processes by ANSI-accredited standards development organizations:

- IEEE 1680.1-2009 Standard for the Environmental Assessment of Personal Computer Products
- IEEE 1680.2-2012 Standard for the Environmental Assessment of Imaging Equipment
- IEEE 1680.3-2012 Standard for the Environmental Assessment of Televisions

All of these standards include environmental performance criteria for:

- Reduction/elimination of environmentally sensitive material
- Materials selection
- Design for end of life
- Product longevity/life-cycle extension
- Energy conservation
- End-of-life management
- Corporate performance
- Packaging

The EPEAT registry currently lists computer desktops, notebooks, integrated systems, thin clients, workstations, displays, televisions, printers, copiers, scanners, fax machines, multifunction devices, digital duplicators, and mailing machines that meet the requirements of the relevant IEEE standards for these products.

EPA is actively involved in bringing technical expertise to the voluntary, consensus based standards development processes, along with other federal, state, and local government and non-governmental stakeholders. EPA participates in an advisory role to EPEAT by having a representative on the EPEAT Advisory Council. The role of the Advisory Council is to provide input on a variety of matters of importance to stakeholders related to the management of the EPEAT system, including issues related to implementing new standards for electronic products in the EPEAT registry, verification against the standards, and the usability/operability of EPEAT. Decisions about which standards will be used in the EPEAT system are made by the EPEAT Board of Directors which EPA does not participate on.

Calvert Q60: Does EPA periodically examine alternate mechanisms or organizations in a competitive manner to identify the best service provider?

Answer: EPEAT is not a government-run program and EPA does not provide funds for the management of the EPEAT product registry or for the verification of products to standards.

In 2011, EPA conducted a grant competition process to facilitate the development of new voluntary consensus standard for additional electronic products. All proposals submitted underwent extensive review by a multi-stakeholder panel which included representatives of other federal agencies, an environmental non-profit organization, and industry. In addition to their written proposals, the applicants also conducted oral presentations for the panel. This panel rated the proposal of International Sustainable Development Foundation (ISDF) – the former parent organization of the Green Electronics Council (GEC) – the highest of all proposals submitted. In its deliberations, the panel concluded that ISDF had the most experience and was best positioned to receive this grant.

Initially, GEC was the only verifier of products for conformance to standards under EPEAT. Due to stakeholder input, GEC has moved to an open competition, multiple verifier systems, in which manufacturers have a choice of six different verifiers to work with to demonstrate conformance of their products to the standards. At this point, over 50 percent of all verifications conducted for EPEAT-registered imaging equipment and 100 percent of all verifications for televisions have been conducted by verifiers other than GEC.

Calvert Q61: How much does the Green Electronics Council receive annually from EPA and is this funding provided consistent with EPA's competition policies?

Answer: The Green Electronics Council (GEC) is not receiving any funds from the federal government for managing the EPEAT Product Registry or the verification of products to standards. EPA does have a cooperative agreement with the International Sustainable Development Foundation (ISDF) – the former parent organization of GEC – to facilitate the development of a server standard and one other standard to be determined. This cooperative agreement was awarded through a competitive process conducted in 2011 which was consistent with EPA's competition policy. Since this cooperative agreement was awarded, EPA has provided ISDF with $176,000 in funding.

Calvert Q62: What right of ownership does EPA have with respect to the EPEAT tool if the Council has trademarked the EPEAT tool?

Answer: EPEAT is not a government-run program and EPA has no ownership rights with respect to EPEAT.

Calvert Q63: What processes does the Green Electronics Council use to garner input from U.S. companies and how does EPA participate in them? Does EPA arbitrate disputes between the Council and other partners?

Answer: The EPEAT Advisory Council is a non-fiduciary body formed to provide input and advice to EPEAT management and board. The Council draws volunteers from all of EPEAT's stakeholder groups, including representatives of manufacturing, purchasing, environmental advocacy, recycling, government, research, retail, and reseller interests. EPA is one of two federal

government representatives on the Advisory Council. DOE is the other representative. The EPEAT Advisory Council provides recommendations to the EPEAT Board of Directors, which makes all final decisions. The list of members of the EPEAT Advisory Council can be found at the following website: www.epeat.net/advisory-council/

EPA does not arbitrate disputes between the Green Electronics Council (GEC) and other partners. EPA has, however, hosted a series of dialogues with stakeholders to discuss issues and to work toward a path forward on greener electronics.

Calvert Q64: The National Technology Transfer and Technology Act and OMB Circular A-119 require use of "open, consensus based standards" for federal purchasing decisions. Does the Agency affirm that the standards that the Council adopts are "open" and "consensus based" as required by law? Is the ultimate decision authority of the Council with respect to which standards and products it allows on its registry conformant with the NTTTA and OMB A-119?

Answer: The IEEE family of standards, which are the current standards that EPEAT requires conformance to, have been developed through an open, consensus-based process. IEEE is an ANSI-accredited standard development organization and IEEE standards follow a well-defined path guided by a set of five basic principles: due process, openness, consensus, balance, and right of appeal. In our role on the EPEAT Advisory Council, EPA ensured that the standards selection criteria developed for use by the Green Electronics Council are in alignment with the NTTAA and OMB A-119.

Current Executive Orders and subsequent Federal Acquisition Regulations (FAR) require federal purchasers to buy EPEAT-registered equipment. The FAR Council has set the requirements for federal purchasers based on the direction in the Executive Order.

Geographic Program

EPA has proposed new language to implement projects in the Southern New England Estuary program.

Calvert Q65: Please explain what limitations currently exist and why this language is necessary.

Answer: The Southeastern New England Coastal Watershed Restoration Program (SNECWRP) encompasses the coastal land and water area from Westerly, Rhode Island to Pleasant Bay on Cape Cod. This language allows SNECWRP to issue grants for project implementation in that geographic area. Currently available authorities under the Clean Water Act present challenges because Section 104(b)(3) does not allow for implementation, while Section 320 does not allow for implementation in areas outside of defined National Estuary Program study areas (Buzzards Bay and Narragansett Bay watersheds). The proposed language would allow the program to provide grants for implementation in the entire defined Southeastern New England region, including southern Cape Cod and eventually Block Island, Martha's Vineyard, and Nantucket.

Buy American

The FY 2015 President's budget proposes to remove the Buy American requirements for the use of iron and steel in SRF projects. However, the Agency's budget documents do not seem to address this change in law.

Calvert Q66: Please provide the Administration's position for the proposal to remove these requirements for FY15.

Answer: The Administration is not opposed to Buy American requirements for the SRFs, but generally deletes legislative riders from prior years in its requested appropriations language for the Budget.

Payroll and FTE

Calvert Q67: What percent of the workforces are Grade 14s, 15s and SES and how does that compare to other Federal Agencies of similar size and mission?

Answer: EPA's data are pulled from the agency's HR system as of April 1, 2014. Data for NASA, DOE and NRC are pulled as of December 2013 (most recent available data) from Fedscope. EPA, NASA, DOE and NRC data capture permanent employees only. Fedscope data can be accessed at http://www.fedscope.opm.gov/ibmcognos/cgi-bin/cognosisapi.dll.

Percent of Employees (December 2013)

	GS-14	GS-15	ES
EPA	18.3%	14.8%	1.8%
NASA	25.6%	25.3%	2.3%
DOE	16.5%	12.6%	3.3%
NRC	30.3%	25.2%	3.9%

Calvert Q68: How does the proposed level of $57.2 million and 321.5 FTE for the EPA Inspector General compare to the size of the Offices of Inspectors General at the Department of Interior, Department of Agriculture, NASA and their respective budgets for fiscal year 2014 and 2015?

Answer: The information below was provided by OIGs at NASA, DOI, and USDA. EPA-OIG compared to DOI-OIG: EPA-OIG has 14% more proposed FTE than DOI-OIG. EPA-OIG's average salary is $3.9 thousand less, and we have approximately 13% more proposed dollars.

EPA-OIG compared to NASA-OIG: EPA-OIG has 34% more proposed FTE than NASA-OIG. EPA-OIG's average salary is $4.2 thousand more, and we have approximately 35% more proposed dollars.

EPA-OIG compared to USDA-OIG: EPA-OIG has 40% fewer proposed FTE than USDA-OIG. EPA-OIG's average salary is $3.1 thousand less, and we have approximately 41% fewer proposed dollars. Because the USDA-OIG has more than 200 FTE more than EPA-OIG, we would suggest that it is not comparable in size to the EPA-OIG.

AGENCY - OIG	FY2014 LEVELS DOLLARS/FTE in millions	FY2015 LEVELS DOLLARS/FTE in millions	FY2015 AVERAGE SALARY in thousands
EPA	$51.8 / 331.5	$57.2 / 321.5	$177.9
DOI	$50.8 / 273	$50.0 / 275	$181.8
NASA	$37.0 / 213	$37.0 / 213	$173.7
USDA	$89.9 / 525	$97.2 / 537	$181.0

Calvert Q69: EPA's payroll request, Agency-wide is $2.245 billion for 15,000 FTE. That is an average of $149,633 per FTE. Is this the correct amount assumed in the budget per FTE? If not, provide the correct average and please explain the difference.

Answer: The EPA does not assume a specific agency-wide average compensation and benefits per FTE level cost when the budget is developed. Instead, the EPA looks at a finer level of detail based on actual expenditures at the office, appropriation and program project level. While not used to formulate the budget, the agency-wide average compensation and benefits per FTE requested for FY 2015 is $149,633. This estimate includes payroll and benefits such as Workers' Compensation, transit subsidies, childcare subsidies, FSAFeds subscription fees and awards.

Administrator Priorities

Calvert Q70: The FY14 Omnibus directed EPA in future budget justifications to identify funding in each program project that has been set aside for Administrator priorities and include a justification for the effort and any anticipated results. Does EPA's FY15 congressional justification comply with the requirement? If so, where are these funds identified?

Answer: The information on the funds set aside for the Administrator's priorities you requested was not included in the FY 2015 President's Budget request for EPA through an oversight. However, the attached table provides details on how these funds have been allocated, by program project, in the FY 2015 President's Budget. A total of $4.75 million is in the Environment and Program Management Account and $250 thousand is in the Science and Technology Account.

These funds which are set aside for Administrator priorities at EPA are contingency funds for the Administrator to use to address unforeseen issues that may arise during the year. These funds have historically been distributed in various program projects across the budget and used during budget execution to support critical unplanned issues. Since these funds are for unforeseen

needs, it is not feasible to identify anticipated results or precisely target what the funds will be needed for in advance to build specific justifications.

The EPA is preparing a report, as directed in the FY 2014 appropriations bill report language, which will describe the use of Administrator priority funds in FY 2012 and FY 2013.

FY 2015 President's Budget Funding for Administrator's Priorities

(Dollars in Thousands)

Appropriation	Program Project	Dollars
EPM	TRI / Right to Know	$75
EPM	Legal Advice: Support Program	$75
EPM	Pesticides: Protect the Environment from Pesticide Risk	$150
EPM	Environmental Justice	$50
EPM	International Sources of Pollution	$50
EPM	Human Resources Management	$150
EPM	Children and Other Sensitive Populations: Agency Coordination	$50
EPM	Brownfields	$175
EPM	RCRA: Corrective Action	$100
EPM	Pesticides: Realize the Value of Pesticide Availability	$100
EPM	Civil Rights / Title VI Compliance	$75
EPM	Exchange Network	$75
EPM	RCRA: Waste Management	$170
EPM	Compliance Monitoring	$200
EPM	Criminal Enforcement	$145
S&T	Research: Chemical Safety and Sustainability	$100
EPM	Climate Protection Program	$70
EPM	Financial Assistance Grants / IAG Management	$150
EPM	Toxic Substances: Chemical Risk Review and Reduction	$175
EPM	Federal Support for Air Quality Management	$130
EPM	Marine Pollution	$100
EPM	Surface Water Protection	$300
EPM	Wetlands	$130
EPM	Integrated Environmental Strategies	$75
EPM	Science Advisory Board	$100
EPM	Pesticides: Protect Human Health from Pesticide Risk	$150
EPM	Pollution Prevention Program	$100
EPM	State and Local Prevention and Preparedness	$100
EPM	Civil Enforcement	$180
EPM	Tribal - Capacity Building	$50
S&T	Federal Support for Air Quality Management	$50
EPM	Drinking Water Programs	$100
EPM	LUST / UST	$100

EPM	Clean Air Allowance Trading Programs	$100
EPM	RCRA: Waste Minimization & Recycling	$50
EPM	Reduce Risks from Indoor Air	$150
S&T	Research: Air, Climate and Energy	$100
EPM	Acquisition Management	$150
EPM	Regulatory/Economic-Management and Analysis	$75
EPM	IT / Data Management	$200
EPM	Toxic Substances: Lead Risk Reduction Program	$75
EPM	NEPA Implementation	$100
EPM	Legal Advice: Environmental Program	$100
EPM	Federal Stationary Source Regulations	$100
	Total	**$5,000**

Proposed Rescission

Calvert Q71: The FY15 budget proposes a $5 million rescission of STAG unobligated balances. EPA's budget justification notes that these funds originate from Congressional designated projects that are complete and the grantee has returned the funds. Please provide a table with the name of the projects including the year appropriated, the original sponsor, the year the project was completed, the year funds were returned, and the amount returned.

Answer: To cover the proposed $5 million rescission, EPA has identified nearly $5.8 million in STAG that has been returned and is no longer needed for special appropriations projects. The attached file identifies the project and contains the additional details requested.

Calvert Q72: For the record, please provide a list of what EPA considers to be "voluntary programs" and their fiscal year 2014 and FY 2015 proposed budgets. Please also include the Agency's definition of a "voluntary program".

Answer: The EPA defines a voluntary program as any program in which the participants or partners are not statutorily required to participate. Enclosed you will find a list of the EPA's voluntary programs for fiscal years 2014 and 2015 organized by the National Program Manager (NPM) and Activity it operates under.

NPM	Activity/Program Name	Approp	FY 2014 Enacted		FY 2015 Presbud	
	Program Project		Total $(K)	Total FTE	Total $(K)	Total FTE
Total Agency Voluntary Programs			**$309,851.5**	**456.7**	**$293,346.8**	**464.4**
Environmental Programs & Management						
OA	**President's Environmental Youth Awards**		**$5.0**	**0.3**	**$0.0**	**0.0**
	Environmental Education (E9)	EPM	$5.0	0.3	$0.0	0.0
OA	**Smart Growth Program**		**$9,373.0**	**25.9**	**$9,510.0**	**25.9**
	Integrated Environmental Strategies (A4)	EPM	$8,008.0	22.1	$8,313.0	22.1
	Brownfields (43)	EPM	$1,365.0	3.8	$1,197.0	3.8
OAR	**Clean Energy**		**$3,146.0**	**8.7**	**$3,336.0**	**8.2**
	Climate Protection Program (46)	EPM	$3,146.0	8.7	$3,336.0	8.2
OAR	**Community-Based Childhood Asthma Programs**		**$6,514.0**	**18.0**	**$6,236.0**	**15.0**
	Reduce Risks from Indoor Air (H5)	EPM	$6,514.0	18.0	$6,236.0	15.0
OAR	**Energy Star**		**$46,814.0**	**83.7**	**$49,041.0**	**80.1**
	Climate Protection Program (46)	EPM	$46,814.0	83.7	$49,041.0	80.1
OAR	**Indoor Air Quality in Healthy Homes and Buildings**		**$8,005.0**	**26.7**	**$8,441.0**	**23.4**
	Reduce Risks from Indoor Air (H5)	EPM	$8,005.0	26.7	$8,441.0	23.4
OAR	**GreenChill**		**$160.0**	**1.0**	**$160.0**	**1.0**
	Stratospheric Ozone: Domestic Programs (C4)	EPM	$160.0	1.0	$160.0	1.0
OAR	**Methane Programs**		**$6,859.0**	**18.7**	**$7,505.0**	**18.4**

	Climate Protection Program (46)	EPM	$6,859.0	18.7	$7,505.0	18.4
OAR	**Global Methane Initiative**		**$3,512.0**	**1.4**	**$4,497.0**	**3.2**
	Climate Protection Program (46)	EPM	$3,512.0	1.4	$4,497.0	3.2
OAR	**Radon Risk Reduction**		**$2,564.0**	**9.1**	**$3,369.0**	**10.6**
	Indoor Air: Radon Program (76)	EPM	$2,564.0	9.1	$3,369.0	10.6
OAR	**Responsible Appliance Disposal Partnership**		**$130.0**	**1.0**	**$135.0**	**1.0**
	Stratospheric Ozone: Domestic Programs (C4)	EPM	$130.0	1.0	$135.0	1.0
OAR	**Smart Way Transport**		**$2,763.0**	**10.9**	**$3,015.0**	**10.9**
	Climate Protection Program (46)	EPM	$2,763.0	10.9	$3,015.0	10.9
OAR	**State Climate and Energy Program Voluntary Activities**		**$3,146.0**	**8.7**	**$3,336.0**	**8.2**
	Climate Protection Program (46)	EPM	$3,146.0	8.7	$3,336.0	8.2
OAR	**SunWise School Program**		**$996.0**	**0.0**	**$0.0**	**0.0**
	Stratospheric Ozone: Domestic Programs (C4)	EPM	$996.0	0.0	$0.0	0.0
OAR	**Voluntary High GWP Programs**		**$1,091.0**	**2.7**	**$1,112.0**	**2.7**
	Climate Protection Program (46)	EPM	$1,091.0	2.7	$1,112.0	2.7
OAR	**International Capacity Building**		**$4,641.0**	**8.5**	**$4,977.0**	**8.3**
	Climate Protection Program (46)	EPM	$4,641.0	8.5	$4,977.0	8.3

NPM	Activity/Program Name Program Project	Approp	FY 2014 Enacted Total $(K)	Total FTE	FY 2015 Presbud Total $(K)	Total FTE
OCSPP	**Design for the Environment (includes DfE Best Practices Partnership; Formulators Program, Furniture Flame Retardancy Partnership, Lead Free Solder Partnership, and Green Engineering) -/1**		**$0.0**	**0.0**	**$0.0**	**0.0**
	Pollution Prevention Program (95)	EPM	$0.0	0.0	$0.0	0.0
OCSPP	**Environmentally Preferable Purchasing-/1**		**$0.0**	**0.0**	**$0.0**	**0.0**
	Pollution Prevention Program (95)	EPM	$0.0	0.0	$0.0	0.0
OCSPP	**Green Chemistry-/1**		**$0.0**	**0.0**	**$0.0**	**0.0**
	Pollution Prevention Program (95)	EPM	$0.0	0.0	$0.0	0.0
OCSPP	**Green Suppliers Network (GSN)-/1**		**$0.0**	**0.0**	**$0.0**	**0.0**
	Pollution Prevention Program (95)	EPM	$0.0	0.0	$0.0	0.0
OCSPP	**Partnership for Sustainable Healthcare (formerly Hospitals for a Healthy Environment)-/1**		**$0.0**	**0.0**	**$0.0**	**0.0**
	Pollution Prevention Program (95)	EPM	$0.0	0.0	$0.0	0.0
OCSPP	**Pollution Prevention Program-/1**		**$13,904.0**	**63.7**	**$13,486.0**	**58.9**
	Pollution Prevention Program (95)	EPM	$13,904.0	63.7	$13,486.0	58.9
OCSPP	**P2 Technical Assistance (formerly Pollution Prevention) -/1**		**$0.0**	**0.0**	**$0.0**	**0.0**
	Pollution Prevention Program (95)	EPM	$0.0	0.0	$0.0	0.0
OITA	**International Visitors Program**		**$65.4**	**0.5**	**$66.1**	**0.5**

	International Capacity Building (85)	EPM	$65.4	0.5	$66.1	0.5
OSWER	**Brownfields**		**$26,002.0**	**136.4**	**$28,280.0**	**157.9**
	Brownfields (43)	EPM	$26,002.0	136.4	$28,280.0	157.9
OSWER	**SMM Electronics Challenge**		**$1,254.9**	**8.3**	**$1,250.0**	**8.3**
	RCRA: Waste Minimization & Recycling (A2)	EPM	$1,254.9	8.3	$1,250.0	8.3
OSWER	**WasteWise**		**$367.6**	**0.8**	**$350.0**	**0.8**
	RCRA: Waste Minimization & Recycling (A2)	EPM	$367.6	0.8	$350.0	0.8
OSWER	**SMM - Food Management**		**$560.0**	**4.0**	**$560.0**	**4.0**
	RCRA:Waste Minimizatrion & Recycling (A2)	EPM	$560.0	4.0	$560.0	4.0
OSWER	**SMM - State and Local Governments: SWMP/Zero Waste**		**$499.7**	**2.0**	**$500.0**	**2.0**
	RCRA:Waste Minimizatrion & Recycling (A2)	EPM	$499.7	2.0	$500.0	2.0
OSWER	**SMM Federal Green Challenge**		**$290.0**	**2.0**	**$300.0**	**2.0**
	RCRA:Waste Minimizatioin & Recycling (A2)	EPM	$290.0	2.0	$300.0	2.0
OW	**Adopt your Watershed**		**$2.8**	**0.0**	**$2.8**	**0.0**
	Surface Water Protection (D4)	EPM	$2.8	0.0	$2.8	0.0
OW	**Decentralized Wastewater Treatment Systems Program (Septic Systems)**		**$350.0**	**2.0**	**$325.0**	**2.0**
	Surface Water Protection (D4)	EPM	$350.0	2.0	$325.0	2.0

NPM	Activity/Program Name Program Project	Approp	FY 2014 Enacted Total $(K)	Total FTE	FY 2015 Presbud Total $(K)	Total FTE
OW	**Lead in Schools Drinking Water Initiative**		**$82.0**	**0.5**	**$82.8**	**0.5**
	Drinking Water Programs (53)	EPM	$82.0	0.5	$82.8	0.5
OW	**National Fish and Wildlife Contamination Program**		**$235.0**	**1.6**	**$0.0**	**1.6**
	Beach / Fish Programs (42)	EPM	$235.0	1.6	$0.0	1.6
OW	**Volunteer Water Monitoring Program**		**$212.1**	**1.0**	**$219.1**	**1.0**
	Surface Water Protection (D4)	EPM	$212.1	1.0	$219.1	1.0
OW	**WaterSense**		**$3,050.0**	**8.0**	**$3,000.0**	**8.0**
	Surface Water Protection (D4)	EPM	$3,050.0	8.0	$3,000.0	8.0
OW	**Schuylkill Action Network**		**$13.0**	**0.1**	**$0.0**	**0.0**
	Surface Water Protection (D4)	EPM	$13.0	0.1	$0.0	0.0
State and Tribal Assistance Grants						
OAR	**National Clean Diesel Campaign (DERA Grants)**		**$20,000.0**	**0.0**	**$0.0**	**0.0**
	Diesel Emissions Reduction Grant Program (H4)	STAG	$20,000.0	0.0	$0.0	0.0
OCSPP	**Categorical Grant: Pollution Prevention**		**$4,765.0**	**0.0**	**$4,765.0**	**0.0**
	Categorical Grant: Pollution Prevention (13)	STAG	$4,765.0	**0.0**	$4,765.0	**0.0**
OCSPP	**Categorical Grant: Regional Agricultural Integrated Pest Management**		**$0.0**	**0.0**	**$0.0**	**0.0**
	Categorical Grant: Pesticides Program Implementation (09)	STAG	$0.0	**0.0**	$0.0	**0.0**

OCSPP	**Categorical Grant: EPA School Integrated Pest Management**		**$402.0**	**0.0**	**$402.0**	**0.0**
	Categorical Grant: Pesticides Program Implementation (09)	STAG	$402.0	**0.0**	$402.0	**0.0**
OSWER	**Brownfields Projects**		**$90,000.0**	**0.0**	**$87,000.0**	**0.0**
	Brownfields Projects (79)	STAG	$90,000.0	0.0	$87,000.0	0.0
OSWER	**Categorical Grant: Brownfields**		**$47,745.0**	**0.0**	**$47,745.0**	**0.0**
	Categorical Grant: Brownfields (24)	STAG	$47,745.0	0.0	$47,745.0	0.0
OW	**Five-Star Restoration Program**		**$332.0**	**0.5**	**$343.0**	**0.0**
	Wetlands Program Development Grants (07)	STAG	$332.0	0.5	$343.0	0.0

_/1 All pollution prevention programs have been consolidated under a single Pollution Prevention Program line item.

Coal Ash

Calvert Q73: Question: What is the Agency's current timeframe for a revised determination on the treatment of coal ash under RCRA?

Answer: Under the terms of the consent decree in APPALACHIAN VOICES et al v. JACKSON (US District Court for the District of Columbia, Case 1:12-cv-00523-RBW), EPA is required to sign for publication in the Federal Register a notice taking final action regarding EPA's proposed revision of RCRA subtitle D regulations pertaining to coal combustion residuals by December 19, 2014. EPA is on schedule to meet this deadline. The consent decree was filed on January 29, 2014 and entered by the court on May 2, 2014.

Lead in Ammunition or Fishing Tackle

Calvert Q74: What is the Agency's current timeframe for a proposing a rule to regulate the lead content of ammunition or fishing tackle?

Answer: In 1994, the EPA proposed a rule under Section 6(a) of Toxic Substances Control Act to prohibit the manufacturing, processing, and distribution in commerce in the United States,

of certain smaller size fishing sinkers containing lead and zinc, and mixed with other substances, including those made of brass (59 FR 11122, March 9, 1994). That proposal has not been finalized. In the 2005 Regulatory Agenda (70 FR 27625, May 16, 2005) and in the 2012 Federal Register Notice on EPA's disposition of the TSCA Section 21 petition (77 FR 10451, February 22, 2012), EPA indicated its intent to withdraw the proposal. The EPA is not working to finalize the proposed rule.

UST Annual Inspections

Calvert Q75: The Energy Policy Act of 2005 mandated that EPA and State inspect all underground storage tanks once every 3 years. Have EPA and the States been meeting this requirement? If not, please provide a list of States that currently do not meet the 3 year requirement and the frequency by which they are currently inspecting their universe of tanks.

Answer: Since EPA began tracking compliance in 2010, several states have missed the inspection requirement each by 10 to 150 inspections, out of a national universe of more than 200,000 facilities. Most of these states quickly returned to compliance and addressed seasonal impacts and other inherent impediments that caused them to miss the requirement. The EPA has been working with states and will continue its active consultation with states to help address Energy Policy Act requirements.

Currently New York and Georgia are not meeting the Energy Act mandate of inspecting each tank within 3 years, at an estimated frequency of just more than 3 years for both. While the EPA is working with both states, we are working particularly with Georgia who has reached a more systemic shortfall without an apparent near-term solution. Georgia has lost several inspectors in recent years, and has not had the resources to re-hire. New York continues to work to meet the three year cycle. EPA has helped NY to close the gap and NY is hopeful they will meet the requirement in coming years. Another state, which is of concern to EPA is Texas. Texas has the largest tank population in the nation and has been able, with a significant investment of federal funding, to meet the Energy Policy Act inspection requirement. However, in coming years EPA will not be able to fully address the needs in Texas and expect that Texas may fall short. With recent reductions to LUST Prevention program resources in the FY 2013 and FY 2014 Enacted Budgets, we are working with all states to meet the 3-year inspection requirement but meeting the anticipated inspection needs will be a challenge.

State Formulas/Allocations

Calvert Q76: If EPA is proposing to change any programmatic formula or allocation by which funds are distributed to States, then please provide a list of proposed changes for the record.

Answer: There are several proposed changes the Agency is proposing for funds distributed to the states. We have provided a list below.

State and Local Air Quality Management STAG Allocation Formula: In FY 2015, EPA plans to begin transitioning funding for particulate (PM2.5) monitoring from Clean Air Act (CAA) Section 103 authority to CAA Section 105 authority over a four year period. EPA expects the transition to be complete at the beginning of FY 2019.

Also in FY 2015, EPA plans to implement an updated allocation formula for CAA Section 105 funding to states. The update will modernize an allocation formula that was developed in the early 1990s. The new allocation recognizes the changing landscape of air quality issues, the increasing workload being imposed on state and local air quality agencies, and the need to sustain effective program operations. To help mitigate the impact of the new allocation formula to state programs, we intend to implement a phased-in approach over a multi-year period beginning in FY 2015. This approach will include moderating shifts in funding so that no Region would experience a decline of more than 5% of its prior year funding level.

Underground Storage Tanks STAG Allocation Formula: In 2012, EPA updated its formulas for allocating LUST grant funds to states, for both the prevention and cleanup programs. The cleanup formula had remained unchanged since the 1990s. The update was necessary because of the decline in appropriations for state grants and the need to have the allocation formula reflect the current needs and performance of the states. For example, some states were not using all of their grant funds and were carrying over balances, while other states had unmet needs, indicating that allocation revisions were needed. EPA worked closely with states as it developed revisions to the allocation formula.

The allocation formula is, however, only the first step in the allocation process. EPA's regions have more current information about individual state program needs, performance, and funding drawdowns. In addition to determining how best to distribute the cleanup performance funding pool, EPA's regions have the discretion to deviate from the formula as appropriate to better reflect state needs and performance. This has historically been an essential part of the allocation process and will continue to remain part of EPA allocation determinations.

In revising the formula, EPA followed the statutory requirements in section 9004(f)(2)(C) of the Solid Waste Disposal Act. The Underground Storage Tanks program held briefings with congressional staff to explain the need for allocation revisions.

Hazardous Waste STAG Allocation Formula: As part of the FY 2014 and 2015 President's Budget submissions, the agency committed to evaluate the allocation methodology for the state hazardous waste grant program under the Resource Conservation and Recovery Act (RCRA). The previous revision of the state grant allocation methodology occurred during the FY 1996 state grant distribution. Over the past year, the Office of Resource Conservation and Recovery (ORCR), has worked with states to revise the allocation methodology for hazardous waste grants under §3011 of RCRA. EPA plans to provide briefings to congressional staff on the details of the revised grant allocation methodology.

Toxic Substances Compliance STAG Allocation Formula: EPA is considering amending the TSCA STAG formula but has not reached a final decision. Before reaching a final decision, EPA will seek states' input into the proposed formula. The proposed TSCA funding allocation would be done in two phases. Phase 1 would begin in FY 2015 and Phase 2 in FY 2016.

Phase 1: Equal Formula.
An equal share to each Lead-based Paint, Asbestos and PCBs state/tribal program receiving a TSCA grant.

Phase 2: Weighted Formula.
The formula would weigh in favor of the Lead-based Paint program with more weight given to states that are authorized for the renovation, repair, and painting (RRP) program. This weighted formula reflects the current program priority and could be adjusted to reflect program priorities in the future.

Cleanup of Federal Hazardous Waste Sites

Calvert Q77: It has been a few years since the Committee has inquired about the progress of negotiations with the Department of Defense on the cleanup of hazardous waste sites. Please provide an update on any recent Federal Facility Agreements (FFAs) with the DOD or DOE as well as a summary of progress on the ongoing work to cleanup sites at Federal facilities.

Answer: With the signing of the September 20, 2013 Tyndall (FL) Air Force Base CERCLA FFA, there remain only two overdue FFAs (out of 174 federal facility Superfund cleanup sites nationwide) to be signed – the Army's Redstone Arsenal in Alabama and the 700 South 1600 East PCE Plume located near the George E. Wahlen Department of Veterans Affairs Medical Center in Salt Lake City. Negotiations are progressing satisfactorily on the 700 South 1600 East PCE Plume site which was listed by the EPA on the National Priority List (NPL) in 2013. Ongoing work to cleanup Federal facilities on the NPL is progressing. Additional information may be found: http://www2.epa.gov/fedfac/federal-facilities-national-priority-list-measures-and-accomplishments. EPA continues to pursue appropriate mechanisms, including through the use of enforceable agreements, to address contamination at Federal facility locations.

Guam Water and Wastewater Needs

Calvert Q78: What are the Agency's latest estimates for drinking water and wastewater infrastructure needs in Guam and how does the fiscal year 2015 President's budget propose to address those needs?

Answer: The latest estimated need for Guam's drinking water and wastewater infrastructure is $598 million ($234 million drinking water and $364 million wastewater). The drinking water estimate, from the 2011 Drinking Water Infrastructure Needs Survey http://water.epa.gov/grants_funding/dwsrf/upload/epa816r13006.pdf represents the nation's drinking water utilities' need in infrastructure investments over the next 20 years for pipe as well as treatment plants, storage tanks, and other key assets to ensure the public health, security, and economic well-being of Guam's cities, towns, and communities. The wastewater estimate, from

the 2008 Clean Watersheds Needs Survey (CWNS): http://water.epa.gov/scitech/datait/databases/cwns/2008reportdata.cfm) represents the capital needs for up to a 20-year period for publicly owned wastewater pipes and treatment facilities, combined sewer overflow correction, and stormwater management.

The FY 2015 President's budget provides a portion of the needs for Guam: $2.8 million from the Drinking Water State Revolving Fund and $3.9 million from the Clean Water State Revolving Fund for FY 2015. Nearly $62 million has been or will be provided to Guam from the SRFs since 2009 ($24.2 million from DWSRF and $37.2 million from CWSRF).

Needs reported in CWNS are based on documentation, such as Capital Improvement Plans, Master Plans, SRF loan applications, and engineer's estimates. For Guam, the needs reported are for the wastewater facilities managed by the Guam Waterworks Authority and do not include needs for military institutions and other federal facilities.

For the Drinking Water Infrastructure Needs Survey, data are collected in the form of capital improvement projects to determine the need. States and other agencies work with the surveyed systems to identify applicable projects. To be included in EPA's assessments, each project must be for a capital improvement, be eligible for Drinking Water State Revolving Fund (DWSRF) funding, for furtherance of the public health protection goals of the Safe Drinking Water Act (SDWA), and submitted with supporting information that documents the three other criteria are met. For Guam, the needs do not include needs for military institutions and other federal facilities.

Restrictions on Communication with Outside Parties

OECA's March 8, 2006 memorandum on "Restrictions on Communicating with Outside Parties Regarding Enforcement Actions" outlines the procedures and policy restrictions for Agency staff to follow with respect to the sharing of information related to enforcement actions, including communications with Congress. EPA has traditionally directed employees to not disclose information that will interfere with the proceedings.

It has been brought to the Committee's attention that EPA has shared information regarding the status of civil actions and investigations with certain Congressional members and staff prior to notifying companies. Further, EPA officials provided a letter summarizing the results of an Agency audit to Congressional staff prior to providing those results to the company. Congressional staff then released this information to outside entities. This information suggests that some Agency officials may be acting in a manner contrary to those restrictions outlined in the 2006 memorandum. This is of particular concern to the Committee as unauthorized disclosures prior to a final determination could be prejudicial or promote controversy. Further, given the sensitivities associated with proposed enforcement actions such actions foster an adversarial relationship rather than a collaborative approach to voluntarily address Agency concerns.

Calvert Q79: Would the actions as described above constitute a violation of EPA's policy on communication with outside parties regarding enforcement actions?

Answer: Per the *Restrictions on Communicating with Outside Parties Regarding Enforcement Actions* policy, if an EPA employee receives any such communication or request for case-specific information by Members of Congress or their staff, the employee should refer the requests to EPA's Office of Congressional and Intergovernmental Relations (OCIR) or the regional Congressional liaisons. The Agency is committed to continuing our practice to share this important policy with staff to ensure compliance.

Calvert Q80: Is the aforementioned 2006 memorandum still the governing document that represents EPA's policies on communication with outside parties regarding enforcement actions? Or have there been subsequent updates to the 2006 memorandum?

Answer: The 2006 memorandum is the most recent version, and is available to all OECA employees both on EPA's intranet website as well as the agency's internet website – please see http://www2.epa.gov/sites/production/files/documents/commrestrictions-nakayamamemo030806_0.pdf.

Calvert Q81: Was 2006 the last time that the memorandum was circulated to EPA staff? If so, would the Agency commit to recirculating the memorandum as a reminder of Agency policy?

Answer: As discussed in our earlier response, the policy is posted on the internet and agency's intranet site. It is also circulated to OECA staff on an as needed basis when situations arise within the scope of the policy and was recirculated to the Regions in 2013. It is also discussed at meetings when there is a major hurricane or disaster event involving EPA that is likely to generate interest and questions from Members of Congress. We also recirculate the policy to staff working on enforcement matters related to such events (most recently in connection with Hurricane Sandy). We are committed to continuing our practice of sharing this important policy with staff to ensure compliance.

Questions Submitted for the Record by Representative Simpson

Waters of the U.S.

Administrator McCarthy, it should come as no surprise that, like Chairman Rogers and Chairman Calvert, I am deeply concerned about the proposed rule that you released on Tuesday expanding the EPA's jurisdiction under the Clean Water Act. I am vehemently opposed to the federal government threatening state sovereignty by claiming jurisdiction over waters that are currently regulated by the state. In Idaho, we call that a declaration of war.

In addition, frankly, I cannot understand why you would decide to issue a proposed rule before the scientific review of the connection between water bodies is complete. That alone leaves me in doubt as to whether this rule has any scientific validity.

Simpson Q1: Why would you draft, much less publish, a proposed rule before the research is complete?

Answer: In the case of the proposed rulemaking for the definition of "waters of the U.S." under the Clean Water Act (CWA), the EPA's Draft Connectivity Report ("Connectivity of Streams and Wetlands to Downstream Waters: A Review and Synthesis of the Scientific Evidence") provides a review and synthesis of the published, peer-reviewed scientific literature regarding the effects that streams, wetlands, and open waters have on larger downstream waters such as rivers, lakes, estuaries, and oceans. The draft report already has undergone both internal and external peer review and is now being reviewed by the EPA's independent Science Advisory Board (SAB). The SAB published its draft peer review on April 1 and has scheduled public meetings to discuss the draft review on April 28 and May 2. The SAB expects to issue a final peer review report later in 2014. The EPA has committed that the rule will not be finalized until the SAB review and the final Connectivity Report are complete.

One of my biggest concerns over redefining "Waters of the U.S." is the impact that expanding the federal government's jurisdiction over water will have on farmers and ranchers. If you could, would you clarify a couple of matters for me:

Simpson Q2: The list of agricultural exemptions that EPA has released only applies to Section 404 (dredge and fill) of the Clean Water Act. Is that correct?

Answer: Yes, the agricultural exemptions in the interpretive rule apply only to Section 404 of the Clean Water Act.

Simpson Q3: Why are you doing these in an interpretive rule as opposed to including them in the regulation itself?

Answer: The proposed rule on the Waters of the U.S. defines the waters subject to the Clean Water Act. The interpretive rule, on the other hand, clarifies the applicability of the exemption from permitting provided under Section 404(f)(1)(A) of the Clean Water Act associated with certain agricultural conservation practices. Because jurisdiction and permitting are separate actions, the EPA and the Corps of Engineers chose to use separate actions.

Simpson Q4: As I understand it, these 'exemptions' can be revisited at any time by the agency and be either narrowed or even repealed. Is that the case?

Answer: The EPA, the Army, and the U.S. Department of Agriculture have signed a Memorandum of Agreement that describes how the agencies will revisit the conservation practices considered exempt from permitting under Clean Water Act Section 404(f)(1)(A). The agencies have agreed to annually review and update, as necessary, the range of Natural Resources Conservation Service's agricultural conservation practices that may include discharges to waters of the United States that are eligible for the exemption.

Simpson Q5: As I understand it, a farmer engaging in these normal activities would have to adhere to NRCS standards in order to avail himself or herself of the exemption. Is that true? Has that always been true? If not, isn't it a fact that you are establishing a new Federal requirement for farmers to be able to use the Section 404 exemptions?

Answer: Certain agricultural practices such as plowing are explicitly (in the statute) exempt from permitting under Clean Water Act Section 404. There are no Natural Resources Conservation Service (NRCS) standards for these practices. Under the interpretive rule, the EPA and Corps of Engineers, with assistance from NRCS, identified 56 additional specific agricultural conservation practices that are newly identified as exempt from permitting under Section 404. These practices are defined by the accompanying NRCS technical standards, which is why the interpretative rule relies on agriculture producers to follow the NRCS' technical standards. The interpretive rule provides greater clarity for farmers and ranchers interested in using the exemption for these NRCS-defined practices. It does not add any new requirements for practices already covered by the exemption.

There is a wide range of agricultural activities that are not related to dredge and fill - applying pesticides, for instance. As I understand your proposal, the list of exemptions does not deal at all with NPDES permit requirements that arise in section 402 of the Act.

Simpson Q6: If these areas – ditches, grass waterways, and others – are "waters of the US" under your proposal, isn't it true that farmers are going to need NPDES permits for these activities?

Answer: It is important to emphasize that the proposed rule would not expand the scope of CWA jurisdiction with respect to agricultural ditches. In fact, we have clarified for the first time in a rule that many ditches and grassed waterways are never jurisdictional. As a result, we do not expect the proposed rule will have an overall effect on the need for farmers to obtain NPDES permits for discharges to ditches on their lands. The proposed rule will benefit landowners, including the nation's famers, by making the definition of waters of the U.S. easier to understand and implement, including clarifying waters that are never covered under CWA. The interpretive rule expands the list of specific activities, consistent with the statutory language that would not require a Section 404 permit even if they do involve discharges of dredge or fill material to waters of the U.S. on agricultural lands.

Simpson Q7: If a ditch or grass waterway on a farmer's property is a water of the US, is it true that any activity falling outside the 404 exemption list could be subject to a 402 permit, assuming it is a discharge?

Answer: Because the proposed rule does not expand the scope of CWA jurisdiction, and even clarifies, for the first time in a rule, types of ditches and grassed waterways that are never jurisdictional, the proposed rule would not have an overall effect on the need for farmers to obtain NPDES permits for discharges to waters on their land.

State Primacy

As you know, the state of Idaho recently passed legislation that will eventually lead to the state claiming primacy on the Clean Water Act. The state will spend millions on the multi-year transition to primacy, and once it gains primacy it will spend millions each year on its program. I am told that no federal funds exist to assist the state with the transition or with the ongoing program once it is up and running.

Simpson Q8: So I guess my question is this - if a state is going to spend millions to run a program now run by the EPA, and is going to hire dozens of people to handle a program now run by federal employees, why are there no savings to your agency and why is there no assistance to the state in running the program? Help me understand why the federal program doesn't shrink at the same time that the state program grows? And if it does shrink, why aren't some of the savings made available to states taking on this responsibility?

Answer: The EPA supports Idaho's desire to seek and develop an NPDES permits program. EPA will be working in close partnership with the state during this multi-year effort in order to develop an effective and sustainable program.

With regard to potential cost savings to the EPA resulting from Idaho's program approval, EPA has recent experience to draw from with the authorization of Alaska's program in 2008. Based on this experience, the EPA anticipates a need for regional staff to assist Idaho in assembling an approvable program package throughout the authorization review process. In addition, the EPA anticipates regional technical assistance during the early transition years prior to full program implementation. Once full state program implementation is achieved in Idaho, the EPA would continue in an oversight role by providing permit review and ongoing technical assistance. The EPA also will need to continue to address other program priorities where the EPA is the permit authority, including issuing permits in Indian Country throughout the region and with permitting in federal waters off the coast of Alaska, Washington, and Oregon.

Concerning federal financial assistance, Idaho will continue to receive annual grant funding under Section 106 of the Clean Water Act. However, consistent with the regulations to allocate these grant funds, the level of funding will not change if Idaho obtains approval for the NPDES program. However, states do have flexibility in the allocation of these funds among the various eligible programs.

Modernizing EPA, including its partnership with the States, is a central theme of EPA's 2015 Budget. Strengthening the partnership with States and increasing the efficiency of EPA's core functions are both key to building a high performing environmental protection enterprise. EPA will redesign its business processes, including contracts and grants management, the regulation development process, and records management, and implement approaches, such as strategic sourcing, in order to increase EPA's effectiveness in an environment of constrained resources.

Stormwater

In June 2012, EPA released the Integrated Municipal Stormwater and Wastewater Planning Approach Framework that laid out a new model to help communities meet their regulatory obligations under the Clean Water Act (CWA) in an integrated manner. If successfully implemented, this model could help communities more affordably manage their clean water obligations while ensuring continuous progress toward water quality goals.

To date, however, only a handful of communities have come forward to express an interest in working with the Agency on this initiative and our understanding is that, for the most part, these communities are ones that are engaged in consent decree negotiations or are operating under an EPA enforcement action. The true test for this new framework will be whether communities that are not facing an enforcement action but have large water quality challenges nonetheless can use the Integrated Planning approach – as it has come to be known – to meet these challenges more

affordably. But, these communities may need some help to develop plans in order to take advantage of this model and these plans will cost money, some upwards of hundreds of thousands of dollars.

So, last year, we suggested that a small amount of money be set aside in EPA's budget to support 10 to 20 pilot communities to demonstrate and evaluate the effectiveness of this model. This appropriations request had broad bi-partisan support in both the House and Senate but in final conference negotiations we weren't able to get it across the finish line in part because we couldn't convince the Agency that supporting pilot communities with planning grants would help further their own initiative.

Simpson Q9: We'd like to try again this year and what I'd like to know is, will we have the support of the agency to undertake this pilot effort in order to demonstrate and evaluate the effectiveness of the Integrated Planning model to help communities meet their water quality goals?

Answer: The EPA agrees that integrated planning can help municipalities meet their Clean Water Act (CWA) obligations more affordably. The EPA encourages municipalities to consider sustainable solutions, such as green infrastructure, when they develop integrated plans. Using green infrastructure, in combination with gray infrastructure, can help municipalities achieve their water quality goals and can provide many other benefits as well, including making their communities more livable, reducing urban heat island effects, and reducing flooding, to name a few.

The EPA is facing challenging resource constraints and must balance many competing needs with the desire to support all worthwhile proposals, such as helping pilot communities develop integrated plans. The Agency is committed to working with municipalities that are interested in developing integrated plans and the EPA is looking for opportunities to do this within our current budget constraints.

Climate Change

Simpson Q10: Administrator McCarthy, can you please elaborate on the EPA's climate priorities, as reflected in the FY 2015 budget proposal? It appears to me that while funding for the agency overall is down, climate initiatives appear to be getting an increase.

Answer: In the FY 2015 budget proposal, the Administration is seeking increases across a number of EPA's strategic goals. These include increases to address climate change, as responding to the threat of climate change is one of the Agency's top priorities.

Climate change poses risks to public health, the environment, cultural resources, infrastructure, the economy, and quality of life. The EPA's strategies to address climate change reflect the President's 2013 Climate Action Plan, which, among other initiatives, tasks the EPA with setting carbon pollution standards for power plants and applying its authorities and other tools to address hydrofluorocarbons (HFCs), methane, and greenhouse gases from mobile sources. The FY 2015 Agency priorities also include continued efforts to address greenhouse gas emissions, improve energy efficiency, and support the leadership of the United States in bi- and multi-lateral activities, such as the United Nations Framework Convention on Climate Change (UNFCCC), the Global Methane Initiative (GMI), the Climate and Clean Air Coalition (CCAC), and Montreal Protocol.

Fish Consumption

EPA, during the recent webinar of the fish consumption survey for Idaho tribes, stated that they intend to derive historical/heritage fish consumption rates. EPA rules require that state and tribal water quality criteria be based on "sound scientific rationale" (see 40 CFR § 131.11(a)(1)).

Simpson Q11: How will EPA meet this requirement for sound scientific rationale in the determination of historical/heritage fish consumption rates? Also, what is the basis for using an "aspirational" or "heritage" fish consumption rate for the establishment of water quality criteria without such "rates" being speculative?

Answer: On December 13, 2013, EPA approved human health criteria for the Spokane Tribe consistent with EPA regulations at 40 CFR 131.11(a) "based on sound scientific rationale" that supported the Tribe's decision to ensure water quality sufficient to support traditional subsistence practices, which is fundamentally a question of tribal policy and within the Tribe's authority under the Clean Water Act (CWA). EPA evaluated the scientific defensibility of the assumptions and methodology the Tribe used in deriving criteria to protect its water quality goals, including the derivation of fish consumption and drinking water rates characteristic of the Spokane Tribe's subsistence traditions. EPA also evaluated whether the Tribe's criteria are sufficient to protect not only Section 304(a) fishable/swimmable goals, but also the goal of protecting fish consumption and drinking water rates characteristic of traditional subsistence lifestyle. EPA intends to use the same methodology for future Tribal water quality standard decisions that are based on subsistence/historical/heritage fish consumption rates. It should be noted that CWA Section 510 establishes that EPA "may not disapprove either Tribal or State standards solely on the grounds that the standard is too stringent."

Executive Order 13563, which discusses improving regulation and regulatory review, emphasizes regulations being "based on the best available science," that public participation occur through an

"open exchange of information and perspectives," and that agencies provide "timely online access... including relevant scientific and technical findings."

Simpson Q12: How will EPA comply with this Executive Order in relation to the fish consumption survey? For example, will EPA make all underlying data (excluding the identity of personal tribal members) available for the public to review and analyze?

Answer: EPA has ownership of all data collected, evaluated, and reported in connection with the Idaho tribal fish consumption surveys. EPA's policy (EPA Order 1000.17 Change A1 Policy and Procedures on Protection of Human Research Subjects in EPA Conducted or Supported Research) for human subjects requires that the study protocol be reviewed by the Human Subjects Research Review Officer, and if necessary under that policy, by an Institutional Review Board to ensure that proper protections will be in place for protection of human subjects. EPA will inform the tribal governments of any third party request for information collected, evaluated, or reported as part of the tribal fish consumption survey, and shall invite the tribal government whose information is the subject of the request to consult formally under applicable federal law, executive orders, agency policies, or directives prior to EPA disclosing or otherwise taking any action with respect to the third party's request for such information. Once the tribal government consultation is completed, EPA will share the requested information. Personally identifiable data that is associated with individuals will never be shared at any time during or after this work effort.

Simpson Q13: The EPA tribal survey relies upon recommendations set forth in a 2002 report by the National Environmental Justice Advisory Council (NEJAC). Since the recommendations in the NEJAC Report are not binding requirements under the Clean Water Act, how does EPA propose to rely upon the recommendations in the NEJAC Report in advising Idaho how to develop appropriate human health criteria?

Answer: EPA has made environmental justice a priority. All the work we do with our tribal and state partners takes into account environmental justice considerations. At the same time, EPA's water quality standards are conducted in accordance with EPA regulations and guidance. For developing appropriate human health criteria, EPA uses EPA's 2000 Methodology for Deriving Ambient Water Quality Criteria (AWQC) for the Protection of Human Health as the primary guidance. EPA's preference is that states and tribes adopt human health criteria reflecting local fish consumption rates. Since 2000, EPA has published additional technical guidance to assist states, territories, and tribes in implementing the above recommendation, and provides technical assistance where needed. The guidance is available at http://www.epa.gov/waterscience.

EPA is planning to have a peer review panel to review the tribal surveys. Such a peer review process is consistent with the Presidential Memorandum on scientific integrity (March 9, 2009).

Simpson Q14: How will EPA select the members of the [tribal survey] peer review panel? Will EPA give consideration to nominations from the public for such a panel?

Answer: EPA believes that the purpose of peer review of the Idaho tribal fish consumption surveys, scheduled to occur in August 2015, is to determine the technical quality of the surveys. Candidates for the peer review process must have proven expertise in relevant technical areas and should not have an interest in the outcome of the peer review process to the maximum degree practicable. EPA would welcome suggestions for candidates from the public for the peer review process consistent with these criteria.

Questions Submitted for the Record by Representative Joyce

Bedbugs and EPA's Denial of the Use of Insecticide Propoxur in Ohio

In the fall of 2009, the Ohio Department of Agriculture, in recognizing the seriousness of the state's bed bug problem, requested that the U.S. EPA grant the state a public health exemption to allow authorized state certified pesticide applicators the use of insecticide propoxur to treat for bed bugs in certain settings. In June of 2010, your predecessor at the EPA wrote then-Governor Ted Strickland declining Ohio's request. Unfortunately, Ohio has not heard anything since late 2010 from the EPA in our request to use propoxur to get rid of bed bugs.

Joyce Q1: Is there any information you can provide on why the response has been delayed?

Answer: EPA has been in contact with Ohio several times since receiving the 2009 emergency exemption request for propoxur. We did not deny the request in 2010, but rather explained that our scientists had carefully reviewed it and concluded that the agency was unable to make the necessary safety findings as required by the Food Quality Protection Act and the Federal Insecticide, Fungicide, and Rodenticide Act. The EPA invited Ohio to submit additional data that could allow us to refine the risk, which could possibly allow the Agency to make the safety finding. The data we had in-house indicated an unacceptable risk to children who might be exposed to propoxur in and around rooms treated for bed bugs. Propoxur, along with other members of its chemical class, is known to cause nervous system effects. The agency's health review for its use on bed bugs suggests that children entering and using rooms that have been treated may be at risk of experiencing nervous system effects. The specific exposure scenario of most concern involves hand-to-mouth behaviors on the part of children.

EPA has been in touch with Ohio as recently as April 11, 2014, when we formally responded to another inquiry about propoxur. Again, the EPA has indicated to the State of Ohio that, if it still wishes to pursue a request for an emergency exemption to use propoxur, the state must submit updated information to address the identified risks of propoxur and the availability and adequacy of alternative methods of controlling bed bugs.

Joyce Q2: And if insecticide propoxur will not be approved by the U.S. EPA, can you provide any chemicals that would help reduce the bed bug problem?

Answer: Since 2009, and even earlier, EPA has been very proactive in working with the states and communities in the fight against bed bugs. The Agency has implemented a multi-prong strategy which emphasizes: encouraging the development of new tools by expediting all new product and new use registrations for bed bug control; providing objective, science-based information through communication materials and our dedicated web page; and collaborating with our federal partners and working with state and local governments. The EPA continues to support pest management professionals and other members of the public who fight bed bugs on a daily basis.

In general, states request an emergency exemption request under FIFRA Section 18 for pest problems when there are no alternatives for controlling the pest. There have been numerous new pesticides registered for bed bug control since 2009. Many of these newer products are showing good efficacy in both field and laboratory studies and research has shown that several of these products have a long lasting residual effect. As an example, in December 2013, a study was published in Pest Control Technology magazine examining the residual effectiveness of two recently registered products. Both of these are combination products that contain two active ingredients, one a pyrethroid and the other a neonicotinoid. The article stated that both products demonstrated long-term efficacy against both bed bugs and their eggs.

As a result of the efforts of EPA and others, the bed bug situation looks very different than it did in 2009. Though bed bugs are still very much a problem, particularly in multi-family housing, there are more tools and control techniques that are quite effective. In addition, the public is far more educated and able to participate in efforts to prevent bed bugs from ever taking hold, detecting them early before an infestation becomes severe, and in actively fighting them if an infestation does occur.

Questions Submitted for the Record by Representative Valadao

Renewable Fuel Standard

It is my understanding EPA has not yet finalized blending targets for the Renewable Fuel Standard for 2014. EPA's November proposal took a common sense approach by setting the mandate to hold biofuel production constant because consumers and their vehicles just can't handle any more ethanol.

Yet, at a January conference of state Departments of Agriculture, press reports quoted you as saying, " 'I have heard loud and clear that you don't think we hit that right,' and that given all the feedback, the final rule, when released, will be 'in a shape that you will see that we have listened to your comments.' "

To me, these comments suggest that EPA may reconsider its previous RFS proposal to appease agriculture interests to the detriment of consumers.

Valadao Q1: Should your comments be taken to mean consumers will have to continue using more and more ethanol, regardless of what their vehicles were designed to handle?

Answer: As indicated at the January conference, the agency will continue to listen to input from stakeholders, and that remains the case. Since the 2014 RFS volume requirements were proposed, we have met with multiple stakeholders to listen to their input on the proposed rule and to solicit any new and relevant data that should be factored into setting the volume standards for 2014. These stakeholders include representatives from the biofuel sector, the agricultural sector, petroleum refiners, environmental groups, and other organizations and sectors. In addition to stakeholder meetings, we are continuing to review and consider submitted comments from all parties. That too, is the case, for not only biofuel stakeholders but for all other stakeholders as well. To date, we have received over 300,000 comments on the proposal.

Valadao Q2: According to your assessment of the law, does EPA have the authority to finalize a rule outside of the existing November proposal?

Answer: The EPA will finalize the 2014 RFS volumes in full accordance with applicable law, including requirements related to the notice and comment process. EPA is currently in the process of reviewing the comments received on the proposal and gathering additional data and information. EPA will reflect this in the standards in the final rule.

It is my understanding the volume of cellulosic biofuel (up to 9 million gallons of cellulosic biofuel) mandated by the RFS proposed rule relies heavily on a company named KiOR. However, I'm told that analysts are now expecting KiOR to file for bankruptcy next week. EPA's proposal projects that any company currently in biofuels production will only continue to increase its production. As a result, the oil industry could have to buy EPA RFS credits if EPA sets its RFS standard too high and the fuel isn't produced. In any business, continually increasing production is far from a certainty.

Valadao Q3: Will EPA include and consider an assessment of the financial stability of the companies it relies upon to produce biofuels when setting cellulosic production mandates?

Answer: Each year, the EPA sets the required volume for cellulosic biofuels by assessing likely production levels for the following year. In order to determine projections of cellulosic production, we identify the subset of cellulosic biofuel producers that is expected to produce commercial volumes of qualifying cellulosic biofuel for use. To arrive at a projected volume for each facility, we develop company-specific projections based on discussions with cellulosic biofuel producers, the Energy Information Administration (EIA), the Department of Agriculture (USDA), and the Department of Energy (DOE). We also take into account a number of factors, including the current and expected state of funding for each production source. A detailed explanation of this process is included in the 2014 proposed rulemaking.

Valadao Q4: EPA is habitually late in issuing RFS rules. What plan do you have to get the rulemaking process back on track, and will the 2015 Final Rule be issued on November 30th, as required by law? Will it be released when the 2014 RFS volumes are released?

Answer: We agree that the RFS rulemaking process needs to get back on schedule. The RFS touches a range of complex environmental, energy, and agricultural issues, and the need to provide public notice and comment adds to the timelines for issuing annual standards. The EPA is currently considering how to improve our internal regulatory review processes in order to meet established deadlines.

Valadao Q5: Are you aware of the numerous studies, some of which are from government agency sources, which have found that the RFS increases demand for corn, which in turn raises the price of numerous food commodities and that these increased costs to businesses in the food industry supply chain are ultimately passed on to consumers in the form of higher food prices? For example, the CBO, the USDA's Economic Research Service, the National Research Council and the Congressional Research Service have all issued studies to this effect. Are you aware of these?

Answer: We are aware of such studies. In addition, the EPA has examined various impacts of the RFS program, including impacts on different commodity prices. For example, the EPA issued a regulatory impact analysis (RIA) for the March 26, 2010 RFS final rule, which implemented the requirements of the Energy Independence and Security Act (EISA) of 2007. That RIA provided a detailed assessment of a wide variety of key impacts from the RFS program. The EPA's analysis addressed impacts of EISA's requirements both on U.S. food prices and global food consumption, and contains explicit information about the assumptions and limitations of the data used to support the analyses.

Valadao Q6: Are you aware of the devastating impact the RFS has had on the livestock, dairy, and poultry industries in recent years? The RFS has raised the price of animal feed for animal farmers. Some have gone out of business as a result. The National Research Council found, in a 2011 study of the RFS, that the impact of biofuels on the retail price increase of broiler meat during 2007-2009 was in the range of 5.8 to 11.6%.

Answer: The EPA hears on an ongoing basis from stakeholders concerning their perspectives on the impacts of the RFS program. This includes information we have received from various parts of the agricultural sector, including livestock, dairy, and poultry producers, concerning impacts on animal feed. In addition, the EPA has examined various impacts of the RFS program, including impacts on different commodity prices. For example, the EPA issued a regulatory impact analysis (RIA) for the March 26, 2010 RFS final rule, which implemented the requirements of the Energy Independence and Security Act (EISA) of 2007. That RIA provided a detailed assessment of a wide variety of key impacts from the RFS program. The EPA's analysis addressed impacts of EISA's requirements both on U.S. food prices and global food consumption, and contains explicit information about the assumptions and limitations of the data used to support the analyses.

Valadao Q7: In that same study, the NRC estimated that a 20-40% increase in the price of corn, which is actually at the low end of what we've seen since enactment of the RFS, results in a 2-4% increase in prices of corn-based food products at the retail level. Retail prices are what consumers pay, so there's a direct impact on consumers from this policy.

Answer: As mentioned in the answer to your question 005 above, we are aware of such analyses. Stakeholders affected by the RFS program provide data and information on such topics to the EPA on a regular basis. In addition, the RIA mentioned above included an analysis on anticipated food price impacts.

Valadao Q8: According to our own CRS, the RFS will raise annual food costs by $3 billion by 2022. Did you know that food price inflation since full implementation of the RFSII in 2008 has gone from slightly lower than general inflation to 60% higher than general inflation?

Answer: As mentioned in our answers above, the EPA hears on a regular, ongoing basis from stakeholders concerning their perspectives on the impacts of the RFS program. In addition, the EPA has examined various impacts of the RFS program, including impacts on different commodity prices. For example, the EPA issued a regulatory impact analysis (RIA) for the March 26, 2010 RFS final rule, which implemented the requirements of the Energy Independence and Security Act (EISA) of 2007. That RIA provided a detailed assessment of a wide variety of key impacts from the RFS program. The EPA's analysis addressed impacts of EISA's requirements both on U.S. food prices and global food consumption, and contains explicit information about the assumptions and limitations of the data used to support the analyses.

Valadao Q9: What can EPA do to relieve some of these costs for consumers?

Answer: The EPA issued a regulatory impact analysis (RIA) for the March 26, 2010 RFS final rule, which implemented the requirements of the Energy Independence and Security Act (EISA) of 2007. That RIA provided a detailed assessment of a wide variety of key impacts from the RFS program, including costs of the program.

Section 211(o)(7) of the Clean Air Act allows the Administrator of EPA, in consultation with the Secretaries of Agriculture and Energy, to waive the requirements of the RFS under certain criteria. The waiver could be issued if the Administrator determines -- after a notice and comment

period -- that implementation of the RFS requirements would severely harm the economy or environment of a state, a region, or the United States. The EPA has responded to waiver requests submitted under this provision of the Clean Air Act in the past, and our decisions in response to the petitions provide a detailed explanation of our interpretation of the statute and the EPA's analytical process. For example, please see the decision issued in 2012, at http://www.gpo.gov/fdsys/pkg/FR-2012-11-27/pdf/2012-28586.pdf.

Hydraulic Fracturing

Valadao Q10: You have said that hydraulic fracturing can be done safely and have agreed with former EPA Administrator Lisa Jackson that there have been no confirmed cases of hydraulic fracturing impacting drinking water. Given that the President's Climate Action Plan relies heavily on the use of natural gas, what is your vision for educating the American public that hydraulic fracturing is safe, creates jobs, and has lowered American energy prices?

I am very concerned that the hydraulic fracturing study that EPA has been working on now for over four years has gone beyond Congressional intent and has expanded in scope. As I understand it, the request to EPA, in the FY 2010 appropriations report, was to study any link between hydraulic fracturing and drinking water. I understand the agency is now undertaking several new research areas and may have 30 or more separate reports as part of this study. Four years later, I am hearing concerns about how EPA is conducting the study and that the agency seems to be studying every water issue related to oil and gas development rather than focusing on fracking.

Answer: Responsible development of America's shale gas resources offers important economic, energy security, and environmental benefits. Recognizing this, in April 2012, President Obama signed E.O. 13605, *Supporting Safe and Responsible Development of Unconventional Domestic Natural Gas Resources*, which, among other things, charges Federal agencies to pursue multidisciplinary, coordinated research. The EPA is working with other Federal agencies, states, and other stakeholders to understand and address potential concerns with hydraulic fracturing so the public has confidence that natural gas production will proceed in a safe and responsible manner. The EPA continues to move forward on our national research study on the potential impacts of hydraulic fracturing for oil and gas on drinking water resources in response to a request from Congress. The study scope was designed to meet Congress' request and was established in November 2011 in the *Plan to Study the Potential Impacts of Hydraulic Fracturing on Drinking Water Resources*, after public comment and peer review by the Science Advisory Board. The scope has not changed since the release of the final study plan.

Valadao Q11: Many are becoming concerned that the EPA fracking study is moving beyond the scope given it by Congress. Would you care to respond to that and what is the EPA's current timeline for completing its study? What are current total costs to EPA to date related to the study? What do you expect to be the total costs of the study when finalized?

Answer: The scope of the EPA's *Study of the Potential Impacts of Hydraulic Fracturing for Oil and Gas on Drinking Water Resources* is responsive to Congress' original request and was

supported by the Agency's Science Advisory Board (SAB) in their review of the draft Study Plan in 2011. There has been no expansion of the scope beyond the original appropriations language.

We have recently intensified our state outreach efforts as part of the study. These efforts will ensure that states understand the data sources we used and will provide them further opportunity to recommend additional sources of information. The careful and intensive review and synthesis of literature, research results, and stakeholder input, along with the recently intensified state outreach effort, will ensure that EPA's draft science assessment is as robust and complete as possible. Our current timeline for release of the study for public comment and a formal SAB peer review is by early 2015.

Below is a table of funding for the study for each fiscal year:

FY 2010 Enacted	FY 2011 Enacted	FY 2012 Enacted	FY 2013 Enacted	FY 2014 Enacted	FY 2015 Pres Bud
$1.9M	$4.3M	$6.1M	$6.1M	$6.1M	$6.1M

The current costs of the study through FY 2015 total $30.6 million. EPA has not yet developed its FY 2016 budget request.

Valadao Q12: As I understand it, EPA plans to release the fracking study to the public at the same time it is submitted to the Science Advisory Board for peer review. Is it normal for EPA to release its scientific studies before peer review is completed? Are you concerned that by releasing the study before peer review is completed, the EPA is setting itself up for a situation in which it may have to back track on findings that do not stand up to peer review? Couldn't that result in the public being unnecessarily scared or misled?

Answer: The EPA customarily makes a draft report available for comment at the same time it is submitted for peer review by the Science Advisory Board (SAB). With reference to Highly Influential Scientific Assessments, Section III(5) of OMB's *Final Information Quality Bulletin for Peer Review* states that: "Whenever feasible and appropriate, the agency shall make the draft scientific assessment available to the public for comment at the same time it is submitted for peer review (or during the peer review process)." When an agency releases information for the purposes of peer review, it is not considered an official "dissemination" of information to the public. This is made clear by adding a disclaimer notifying the reader that the draft document is being distributed for pre-dissemination peer review and does not represent Agency policy.

Waters of the United States

Valadao Q13: Your agency is developing a rulemaking to redefine "waters of the U.S." A coalition of industry groups has critiqued a leaked version of your economic analysis for this rule. Is it true that in looking at costs your agency did not update 20 year old studies for inflation? Did EPA analyze each program under the Clean Water Act and whether that program would be expanded with this change and by how much?

Answer: The cost estimate in the economic analysis was based on 2010 dollars, and all cost and benefit information was adjusted accordingly. The EPA analyzed the proposed rule's expected impact to each program under the Clean Water Act. The methodology and findings are documented in "Economic Analysis of Proposed Revised Definition of Waters of the United States," September 2013, which is in the docket for the proposed Waters of the U.S. rule. The agency invites comments on this document as part of the public comment period on the proposed rule.

Valadao Q14: How long does it take and how much does it currently cost on average to get a nationwide permit under the Clean Water Act? Is it safe to say that increasing the number of waters under federal regulation, especially if you're including ditches, dry streams, and isolated ponds and puddles, will increase the average time it takes to get a permit and will increase the average cost to get a permit?

Answer: Clean Water Act Section 404 permits are issued by the U.S. Army Corps of Engineers, not by EPA, so specific expertise regarding the cost and processing time for these permits lies with the Corps. EPA and the Corps developed an economic analysis of the expected benefits and costs of the agencies' proposed "Waters of the U.S." rulemaking, which is available at: http://www2.epa.gov/sites/production/files /2014-03/documents/wus_proposed _rule_economic_analysis.pdf. The agencies believe that the proposed rule will benefit businesses by increasing efficiency in determining coverage of the Clean Water Act.

The agencies' proposed rule does not protect any new types of waters that have not historically been covered under the Clean Water Act. The rule also clarifies for the first time in regulation that many types of waters including farm ponds, gullies, rills, non-wetland swales, and puddles are not jurisdictional "waters of the U.S."

Valadao Q15: We are under a drought in CA. Can you tell me: If I have a dry stream right now, but by some miracle we get rain and the stream bed has some flow for a short time that dries up before it gets to a larger body of water, with 100 percent certainty, can you tell me whether that stream bed is or is not a "water of the U.S."? That scenario is typical of those that exist on many agricultural lands. If you cannot answer my question with 100% certainty, then how can you tell farmers and ranchers that they have nothing to worry about with respect to the Waters of the U.S. Rule?

Answer: The proposed rule published by the EPA and the U.S. Army Corps of Engineers will help provide additional clarity regarding waters that are and are not jurisdictional under the Clean Water Act. The agencies' proposed rule would not protect any new types of waters that have not historically been covered under the Clean Water Act and is consistent with the Supreme Court's more narrow reading of Clean Water Act jurisdiction. Consistent with the more than 40-year practice under the Clean Water Act, the agencies make decisions regarding the jurisdictional status of particular waters almost exclusively in response to a request from a potential permit

applicant or landowner asking the agencies to make such a determination. As such, determining jurisdiction of a particular waterbody is a case-by-case, fact-specific determination, which the agencies believe will be made more straightforward under the proposed rule.

Under the proposed rule, if the stream flows to a Traditional Navigable Water, Interstate Water, or Territorial Sea, including intermittent and ephemeral flows, and there is an Ordinary High Water Mark (OHWM), and bed and banks, the stream would be classified as a tributary and would be considered to be a water of the U.S. In terms of clarity to the regulated public, this is an improvement from the current rule because the proposed rule includes a regulatory definition of the key regulatory term "tributary."

Valadao Q16: If I am a land owner and EPA has told me, through a jurisdictional determination, that my dry stream bed is not a "water of the U.S.," can a third party still sue me under the Clean Water Act if they disagree with the EPA's determination?

Answer: An Army Corps of Engineers or EPA jurisdictional determination would not be binding on a 3rd party in a citizen suit enforcement action. However, we believe the agencies' expert opinion would be an important factor to which any Court hearing such a suit would give substantial weight.

Herbicide-Tolerant Crops

Weed resistance is not a problem unique to biotech crops. Ensuring farmers have access to multiple modes of action to address weed resistance is very important. One way to help farmers is to ensure they have access to new herbicide-tolerant crops. I understand USDA has not yet deregulated products that will give farmers some additional ammunition against stubborn weeds and that EPA continues to wait for USDA's deregulation decisions before taking action on herbicide approvals.

Valadao Q17: Can you help me understand why it is taking so long for these crops to get into the marketplace?

Is your agency required to wait on USDA's deregulation before the EPA takes action?

Are USDA and EPA efficiently coordinating the deregulation of herbicide-tolerant crops? If so, what coordination has occurred that can be quantified as an improvement in coordination between the agencies?

Answer: The EPA recognizes that weeds are becoming increasingly resistant to glyphosate-based herbicides and are posing a problem for farmers. USDA is responsible for deciding whether to deregulate crops genetically engineered to tolerate herbicide use. The EPA is responsible for regulating the use of herbicides on such crops.

On April 30, 2014, the EPA made available for public comment a proposed decision to register *Enlist Duo* containing glyphosate and the choline salt of 2,4-D for use in controlling weeds in corn and soybeans genetically engineered to tolerate 2,4-D. EPA's action would provide an additional tool to reduce the spread of glyphosate resistant weeds. The EPA worked closely with USDA to ensure a thorough scientific review of the potential impacts on human health and the environment to support the EPA's proposed decision. This close coordination will enable the EPA to take final action on *Enlist Duo* shortly after USDA makes its decision on deregulation of the genetically-engineered crops.

Questions Submitted for the Record by Representative Stewart

SAB and Water Connectivity

As you know, the Environmental Research, Development and Demonstration Act of 1978, or ERDDAA, states that the EPA "shall establish a Science Advisory Board which shall provide such scientific advice as may be requested by...the Committee on Science, Space and Technology."

You are responsible for appointing members of the EPA's Science Advisory Board. This panel exists to "provide such scientific advice as may be requested" by Congressional Committees of jurisdiction. Despite this statutory requirement, your Office of Congressional and Intergovernmental Relations has prevented the Science Advisory Board from responding directly to requests for scientific advice by the Science Committee, including on critical ongoing reviews related to the Clean Water Act and hydraulic fracturing.

Stewart Q1: I've checked the report accompanying ERDDAA. It indicates that the goal was to "allow Congress to request scientific advice from the EPA Science Advisory Board without the SAB being obligated to seek permission from the Administrator before providing such advice to the Congress." (HR Rep No. 96-959 at 58 (1980). In your view, does the SAB need to ask your permission to respond to requests for scientific advice to Committees of jurisdiction?

Answer: Discussions have been ongoing regarding the proper lines of communication between members of Congress and appointed members of EPA's federal advisory committees.

Stewart Q2: On December 16, 2013 – At the end of the public comment period of the meeting, a letter was transmitted from EPA Associate Administrator to Chairmen Smith and me regarding "charge questions" for the water connectivity report we sent to the Board. The letter from the SAB stated that "we believe many of the questions you raise are addressed in the existing charge questions." Is it your view that the SAB is properly responding to questions from the Committee on Science, Space and Technology?

Answer: In the letter dated December 16, 2013, from EPA's Office of Congressional and Intergovernmental Relations to Chairman Stewart, the Agency provided its assessment that many of the questions identified by the Chairman were addressed in the existing charge questions provided by the EPA to the SAB panel. Several of the questions were outside the scope of the SAB panel's scientific purview. The SAB panel is currently preparing a draft consensus report in response to the EPA charge questions which will be reviewed by the Chartered SAB by summer 2014.

Stewart Q3: On a related issue, does the SAB have to ask your permission to testify in front of a Congressional Committee?

Answer: Discussions have been ongoing regarding the proper lines of communication between members of Congress and appointed members of EPA's federal advisory committees, including the Science Advisory Board.

Stewart Q4: The committees of jurisdiction have requested that, consistent with the historical practice, the SAB provide testimony on EPA's budget request as well as the Board's own budget. The SAB's request includes several millions of dollars and a $1.1 million increase. Yet the SAB denied this request stating that they do not have permission from the EPA. Why should we provide appropriations for this body if it is not following its statutory obligations and fails to respond to communications from Congress related to scientific inquiries and matters related to its budget?

Answer: Congress established the SAB in 1978 and gave it a broad mandate to advise the Administrator on a wide range of highly visible and important scientific matters to ensure that the Agency's technical products are of the highest quality.

The Agency has requested a $1.1 million increase for the SAB in the FY 2015 President's Budget. Specifically, $825,000 of the increase will focus on assessing Integrated Risk Information System chemicals. The remainder of the increase will focus on hydraulic fracturing, an economy wide modeling review and perhaps several additional reviews as identified by the Chartered SAB.

Stewart Q5: You just released your regulation defining federal jurisdiction under the Clean Water Act, despite the fact that the Science Advisory Board has not completed their review of the underlying scientific report. Will you ask the panel to review the proposed rule? And will you allow the Board to follow the law and respond to specific questions submitted by Congress on the proposed rule?

Answer: The Department of the Army and EPA released their proposed rule to clarify the regulatory definition of "waters of the United States" in late March 2014 and it was published in the Federal Register for public notice and comment on April 21, 2014. The agencies have committed to complete the rulemaking only after the SAB review of the Science Report is completed and we have addressed their recommendations. The SAB panel reviewing the Science Report has indicated their interest in evaluating the scientific basis for the proposed rule and we look forward to their input. The ad hoc panel convened to review the Science Report is composed of technical experts with the experience, education, and background needed to provide such scientific advice. We look forward to continue to work with the committee and the SAB as the Panel assesses the scientific and technical issues before them.

NSPS (New Source Pollution Standards)

Stewart Q6: You are currently reviewing New Source Pollution Standards. Have you consulted with Fish and Wildlife on any non-air impacts resulting from the proposed rule?

Answer: The EPA's proposed new source performance standards for emissions of greenhouse gases from new fossil fuel-fired power plants was published in the *Federal Register* on January 8, 2014, and the comment period was through May 9, 2014. Any final rule the agency issues will be based on sound science, be legally sound, and clearly explain the agency's compliance with the Endangered Species Act while also addressing any comments we receive on that issue.

AL-09-000-7490

SUPPLEMENTAL QUESTIONS FOR THE RECORD TO
Ms. Margo T. Oge

CONSERVATION, CREDIT, ENERGY AND RESEARCH SUBCOMMITTEE HEARING
May 6, 2009

Committee on Agriculture Staff
Subcommittee on Conservation, Credit, Energy and Research Staff Director—Nona Darrell
(202) 225-2171

Question Submitted by:
The Subcommittee on Conservation, Credit, Energy and Research

1. **Have you discussed who's going to determine questions like whether land was "cleared" prior to passage of EISA (energy bill from 2007)?**

   We have crafted the RFS2 proposal in such a way as to implicitly address the issue of whether agricultural land or land on which tree plantations are situated had been cleared prior to passage of EISA. We have proposed to define the term "existing agricultural land" as cropland, pastureland, or Conservation Reserve Program land that existed as of December 2007 (and continuously thereafter). As long as land was being used as cropland, pastureland, or CRP land on December 2007, we would presume it to have been cleared (or cultivated) prior to December 2007. Likewise, we have proposed to define the term "actively managed tree plantation" to mean tree plantations that existed as of December 2007 (and continuously thereafter). Again, we would presume that a tree plantation that can satisfy our proposed definition for "actively managed tree plantation" would automatically satisfy the requirement that it have been cleared prior to passage of EISA.

   We have proposed that the responsibility for verifying that feedstocks come from "existing agricultural land" or "actively managed tree plantations" falls on the renewable fuel producer and that they acquire and maintain documentation from their feedstock producers to support their claims. This documentation would be reviewed as part of the producer's annual audit ("attest engagement"), and EPA would conduct any supplemental oversight or auditing if inconsistencies were reported based on that audit.

2. **Are you familiar with the recent International Energy Agency report? Do you concur with their assessment that "as governments around the world try to establish the greenhouse gas emission benefits of various biofuels, the use of methodologies such as default emission factors could lead to a significant underestimation of the benefits unless the factors are updated on a frequent basis?"**

EPA is familiar with the recent International Energy Agency report "An Examination of the Potential for Improving Carbon/Energy Balance of Bioethanol" under IEA Task 39 Commercializing 1st and 2nd Generation Liquid Biofuels from Biomass.

The paragraph to which the question refers suggests that lifecycle greenhouse gas assessments should consider future developments in addition to historical data. EPA has worked with the U.S. Department of Agriculture, the U.S. Department of Energy, and industry experts to incorporate technology improvement projections (e.g. biorefinery efficiency improvements, agricultural yield improvements) and socio-economic trend projections (e.g. food consumption, GDP, population growth) into the lifecycle in order to account for expected future developments. EPA will continue to refine data and assumptions in coordination with other federal departments and other experts as we progress to the final rulemaking. Additionally, following publication of the final rule we will continue to update our methodology to incorporate new information and advancements.

3. **The estimates for the indirect emissions as measured by the Searchinger study and the Global Trade and Analysis Project (GTAP) are vastly different. How sensitive are these models to assumptions made? What uncertainty does this mean for the biofuel industry, or investors concerned with compliance issues under the renewable fuel standard?**

It is true that models are sensitive to certain key inputs, like crop yields. This is one reason why EPA's proposal identifies and conducts sensitivity analyses around these key inputs. In addition, we are working with numerous scientists and stakeholders and conducting peer reviews to ensure that we use the best available data in our modeling through an open transparent process. The intent of this process is to ensure a final rulemaking that provides clarity and stability for the biofuels industry.

It is also important to note that regardless of the models and assumptions used in the many studies that have been conducted to date on lifecycle analysis, a number of studies have shown that indirect land use emissions comprise a significant portion of the total lifecycle emissions of some biofuel pathways. Therefore, these impacts should be accounted for in order to ensure an accurate and scientifically credible assessment of the GHG impact of renewable fuels.

4. **EPA is required to formulate and update assessments of the lifecycle emissions for biofuels. In general, how might carbon reduction legislation or renewable energy standards affect this lifecycle analysis? Would competition for feedstocks from another legislative standard, say a renewable electricity standard, change the emissions lifecycle for existing plants or practices? Likewise if Brazil cracked down on illegal logging, could that change a lifecycle analysis for a biofuel produced in the US?**

Policy developments such as those described above are important to consider. The Agency has incorporated current policy regimes into the proposed lifecycle analysis. For

example, we are working closely with experts in Brazil to ensure that Brazil's land use and enforcement policies are appropriately incorporated into the lifecycle models. EPA has met with experts and representatives from other countries (e.g., EU countries, Argentina) regarding their current biofuel and agricultural policies to accurately inform our models and have consistently invited countries and foreign companies inquiring about renewable fuels to share data and policy information with us for analytical refinement.

Moreover, should significant policy developments occur in the future that would impact the lifecycle analysis, we will update our lifecycle analysis accordingly. However, we feel it is not appropriate to attempt to predict and incorporate future policy passed by Congress or other countries into the lifecycle analysis.

5. **During the interagency process it is my understanding that USTR was involved in the discussions. What was their concern? Do you think that the inclusion of indirect land use will impact the international climate dialog?**

   EPA continues to work with USTR and other agencies to ensure that the RFS rule will comply with all trade obligations.

6. **While the focus of this hearing is mostly on ILUC, can you elaborate on the findings of EPA's DIRECT emissions lifecycle analysis for ethanol? I understand your agency's analysis showed that most ethanol offers an approximate 50% reduction in direct GHG emissions relative to petroleum than previously believed. Can you elaborate on the reasons for this reduction being greater than previous EPA estimates?**

   If indirect land use change is excluded from the analysis, most corn ethanol offers an approximately 50% reduction in GHG compared to petroleum gasoline. However, this is not an indication of direct impacts. Our methodology includes both direct and indirect impacts together. The indirect impact modeling accounts for land use change, as well as other "positive" indirect impacts in terms of biofuels GHG emissions, such as reductions in livestock emissions and shifting of crop production to regions with lower GHG impacts. Therefore it is important to consider the results with all indirect impacts, including indirect land use change. Inclusion of these "positive" indirect impacts was not done in our previous analyses. We also project advancements in ethanol energy efficiency that result in lower estimates of emissions than previously considered.

7. **I understand EPA relied on satellite data and imagery from 2001-2004 to estimate the types of lands that might be converted as a result of U.S. biofuels expansion. While this data might be helpful in determining what types of land were converted to other uses during a brief period at the beginning of this decade, I'm assuming this data does not provide any insight into the CAUSE of the land conversion. Is that correct?**

The satellite data is not used to attribute unique causes to each instance of land conversion, but rather, it allows us to project the type of land converted into cropland for a variety of reasons. Our modeling assumes that the same mix of land types will be converted to cropland in the future if demand for cropland increases. We use economic modeling to predict how changes in demand for crops determine the amount of new cropland that will result. Thus, in our analysis, the causes of crop expansion are captured with economic modeling. We rely on well-established economic models to project the amount of crop expansion in each country resulting from increased biofuel production. We then use satellite data to determine not the amount of land that might be converted, but what types of land will be used in a particular country if additional land is needed for crop production as a result of U.S. biofuels expansion, based on land use change patterns determined from satellite imagery from 2001 to 2004.

That being said, we recognize that this is an area of potential uncertainty. Therefore, the use of satellite data is one of the components of the lifecycle analysis that we are having peer-reviewed and have specifically asked for comment on throughout the rulemaking process. We also have sought input from our Agency partners, including USDA, on this issue.

8. **The International Energy Agency report also challenged the biofuels industry to keep better track of its performance. Are you working with the biofuels industry on that front?**

EPA has an extensive history of working with the biofuels industry and other stakeholders. These interactions have helped us craft approaches in our regulations to help keep better track of performance. For example, our RFS2 proposal includes new registration and reporting requirements for biofuel producers which will help us to better quantify and track individual producers' performance and the industry's performance overall. The registration requirement will help us understand the feedstocks, processes, energy sources, and products that existing facilities are capable of utilizing or producing. In addition, we also are proposing that producers submit an annual production outlook report. This report will help us gauge the overall direction of the industry, including anticipated biofuel production volumes and facility expansions or other changes being planned or underway. This information will help us set the annual RFS standards for each of the four categories of renewable fuel, as well as feed into any future analyses of the industry as well as supporting our future lifecycle modeling efforts.

Furthermore, EPA is currently undergoing a separate rulemaking that would require industrial sources that emit above a certain threshold of GHGs per year to report these emissions to EPA. Biofuel production facilities that meet or exceed the threshold would be required to report their emissions, providing EPA with additional, facility-specific data that will help us track the industry's performance.

9. **In your testimony you discussed the statutory emission reduction thresholds for each of the four different renewable fuel categories. Also in statute are explicit**

EISA stipulates the conditions under which EPA may make an adjustment to the GHG emission reduction thresholds. All such adjustments must be the "minimum possible adjustment" and result in the "maximum achievable level" of GHG reduction, taking cost into consideration. There are additional criteria for the fuel-specific thresholds. For the 20 percent threshold applicable to all renewable fuel, the adjusted level must be that achievable by "natural gas fired corn-based ethanol plants, allowing for the use of a variety of technologies and processes." For the 50 percent thresholds applicable to advanced biofuel and biomass-based diesel, and the 60 percent threshold applicable to cellulosic biofuel, an adjustment must allow for the "use a variety of feedstocks, technologies, and processes." Finally, adjusted thresholds can be no lower than 10 percent below the thresholds specified in EISA.

In our Notice of Proposed Rulemaking for the RFS2 program, we have proposed that the GHG threshold for advanced biofuel be lowered to 44 percent, or potentially as low as 40 percent. This proposal is based on our projection that imported sugarcane ethanol is the only renewable fuel available in sufficient volumes over the next several years to allow the statutory volume requirements for advanced biofuel to be met. Based on the preliminary lifecycle analysis conducted for the proposal, sugarcane ethanol would achieve a 44 percent reduction in GHGs. The final adjustment would depend upon the updated lifecycle analyses conducted for the final rule.

Similarly, due to the projected insufficiency of waste grease feedstocks that could be used to produce biodiesel or renewable diesel meeting the 50 percent GHG threshold for biomass-based diesel, we take comments on reducing this threshold to 40 percent in combination with an allowance for biodiesel producers to average the GHG reduction profile of their soy oil and waste fats and greases feedstocks. These adjustments would allow biodiesel producers to utilize sufficient volumes of feedstocks to meet or exceed the 1.0 billion gallon volume mandate established by EISA for biomass-based diesel in 2012.

10. **In your written testimony you said that the EPA has developed a "robust and scientifically supported methodology that identifies direct AND indirect emissions, including those resulting from international land use changes." When you say you have developed a scientifically supported methodology, are you including the 125 scientists who submitted a letter to the California Air Resources Board during the public comment period who wrote that the science for indirect emissions from land use changes is NOT ready for implementation in the California Low Carbon Fuel Standard?**

EPA has consulted with dozens of noted experts in developing our lifecycle assessment for biofuels including those from industry, academic researchers and experts from USDA and DOE. These experts have presented a range of viewpoints and information that enabled the Agency to prepare a technically and scientifically sound analysis of the full

lifecycle GHG emission impacts of biofuels, using well-accepted, peer-reviewed models. We also anticipate that the feedback we receive through the lifecycle workshop and peer review will further improve our analysis.

We also have coordinated with California's Air Resources Board. We note that California's Air Resources Board received numerous comments, including those from a large number of scientists who supported their proposed assessment of both direct and indirect land use impacts. After considering all comments received, the Board voted almost unanimously to adopt the rules which included land use impacts.

11. **Given the uncertainty of the science and lack of confidence for methodologies surrounding indirect emissions from land use changes how do you think the decisions to use indirect land use changes as part of the RFS proposed rule is reconciled with the March 9, 2009 the White House memo calling for "science and the scientific process must inform and guide decisions" for the Administration?**

EPA's work is using science and the scientific process to inform and guide decisions. For example, dozens of scientists and EPA experts have established that indirect emissions comprise a significant portion of the total lifecycle emissions of biofuels. In creating our lifecycle methodology we turned to use of well-established models, tools, and data. We also recognize that lifecycle analysis is a new part of the RFS program and that much of our methodology represents groundbreaking science. Therefore we have proceeded in a manner consistent with the President's call to guide decisions on science in a transparent process. EPA's proposal describes in depth the lifecycle analysis methodology and highlights the assumptions and model inputs that particularly influence our assessment. We have conducted a sensitivity analyses on key parameters and demonstrate how our assessments might change under alternative assumptions. Additionally, EPA is conducting formal peer reviews of several key components of the lifecycle methodology. Lastly, the Administrator recently extended the comment period on the proposed rule by 60 days in order to provide additional time for review of EPA's work.

12. **Please describe in detail the work you have done to develop methodologies to measure the indirect emissions from conventional fuels in general? Specifically, what work have you done in this area regarding the production of gas and oil from tar sands and oil shale?**

Based on the EISA requirements, we compare the lifecycle emissions of biofuels to the average 2005 emissions of producing either petroleum gasoline or diesel fuel depending on what fuel the biofuels replace. We use the same lifecycle boundaries for biofuels and petroleum-based fuels when addressing both domestic and international greenhouse gas impacts, including extraction emissions from crude oil. In 2005, 5 percent of crude was Canadian tar sand, 1 percent was Venezuela extra heavy, and 23 percent was heavy crude.

The direct emission factors for Canadian tar sand production were based on the GREET model Version 1.8b, and emission factors for other non-conventional sources of heavy crude were based on analysis done by EPA for the proposed rulemaking. We plan to update these factors for our final rulemaking analysis with, for example, work done by the U.S. Department of Energy's National Energy Technology Laboratory (NETL) that estimates the average lifecycle GHG emissions from petroleum-based fuels sold or distributed in 2005.

With regard to analyzing the direct and indirect emission impacts of petroleum fuel production, our work to date has found that the indirect land use change emissions are insignificant because, unlike biofuels, there is not the same opportunity cost of land. This is because the land needed for petroleum extraction is not replacing land that would otherwise be used to provide resources for an existing market (i.e., crop based biofuels displacing crops used for feed). However, for the final rule we are evaluating other indirect impacts associated with petroleum fuel production, such as petroleum product supply and demand changes associated with a marginal change in transportation fuel use. This will need to be evaluated in the context of the Act requirements of using a 2005 average baseline for petroleum fuels.

In the proposed rule we are seeking comment on EPA's work on this topic and on the best approach for analyzing each aspect of the petroleum lifecycle.

13. **In your testimony you stated that the burden for ensuring feedstock eligiblity for the RFS program will rest on the biofuel producer. What is the expected cost of compliance for a biofuel producer? Does this rule expose biofuel producers to citizen or environmental lawsuits if non-eligible feedstocks are used? Under any enforcement mechanism, do you expect the EPA to go onto a farm to verify land or feedstock eligibility for the RFS?**

In the analysis that accompanies the RFS2 proposal, we have estimated the cost of compliance for renewable fuel producers to be roughly $2,000 annually per producer; however, we realize that this sum may actually be higher or lower depending on a producer's business practices. We are seeking comment from industry on this estimate for the final rule. We do not believe that our proposal exposes biofuel producers to lawsuits to a higher degree than their current exposure under the existing RFS program.

As for whether or not EPA would have to visit a farm to verify feedstock production, our main proposal would not envision having EPA visit farms. The proposal seeks comment on a variety of alternatives that could help inform our enforcement efforts while limiting any visits to or audits of feedstock producers' records, including using aerial photography or satellite imagery to identify general land use trends. We also investigated several options besides our proposed option, including use of data already collected by USDA to help us ensure compliance with the renewable biomass provision. However, due to USDA policy and new data-sharing restrictions contained in the 2008 Farm Bill, this option does not appear to be available to us. We are continuing to work with USDA on this issue.

14. **Have you made available the specifics of your modeling on land use changes (so that people can see what your assumptions were)?**

Yes. All of the information supporting EPA's analysis is now available in the public docket for the rule. This information includes a full description of each of the models we used, all of our assumptions, and all of the empirical data used (e.g. input and output files). In addition to this availability, during the development of our assessment, we shared our plans and assumptions with USDA and other federal agencies and with a wide variety of stakeholders including those from the biofuel industry as well as the agricultural industry. Important assumptions such as growth in crop yields were coordinated prior to our finalizing our assessments to make sure we benefited from full industry input. Then, after completing our analyses, we shared the results again with our federal partners, the affected industry members and other experts as part of our open rulemaking process, all before processing the rule for public release.

15. **EPA says their modeling shows that ethanol reduces greenhouse gases by 16% compared to gasoline, however that is after you penalize corn based ethanol by 40% for the indirect international land use. This is a significant reduction. Will you provide the modeling that you have used to determine this reduction to the public and to this committee? Knowing full well that farmers in Brazil and other countries base a number of factors, exports, weather, local needs, have been changing their practices for decades – how did you arrive at this penalty based on one use – corn ethanol?**

We have made all of our modeling (including all of the assumptions and key variables) available to the public. EPA has both shared this information with our stakeholders via numerous meetings and presentations and provided it in the public docket.

In determining indirect impacts, the methodology we have developed isolates the impacts of biofuels production, which allows us to differentiate and assign just the land use change directly caused by increases in renewable fuels. This approach considers the impacts of increased biofuels production vs. a baseline that incorporates the number of other factors you mention. Therefore the only change we measure is from biofuels production, keeping all other factors constant. As noted above, this approach is described in detail in the proposed rule.

16. **Yesterday's Presidential Directive directed EPA to solicit peer reviewed, scientific data on the indirect land use component, and this is the issue that all the media seems to have focused on – yet, your testimony seems to gloss over it. Do you not think it is important?**

As I described in my oral and written testimony, EPA considers peer review a critical component of our lifecycle methodology and the scientific process. This is why we made conducting these reviews during the public comment period a top priority. The reviews

are focused on four areas of our lifecycle assessment that in particular charted new ground: use of satellite data to project future the type of land use changes; land conversion GHG emissions factors estimates used for different types of land use; estimates of GHG emissions from foreign crop production; methods to account for the variable timing of GHG emissions; and how the models are used together to provide overall lifecycle GHG estimates. The reviews are being conducted following OMB's peer review guidance that ensures consistent government-wide implementation of peer review and according to EPA's longstanding and rigorous peer review policies.

17. Can you describe to me the process whereby EPA determined how it would measure indirect effects associated with biofuel production? What is the scientific basis? What data does the EPA possess that demonstrates indirect effects associated with biofuels production?

Measuring the indirect effects of biofuels is based on the fact that in any given year, the use of biofuel production requires land that would have been used for other uses absent use for biofuels. Therefore, there is an opportunity cost associated with using feedstocks or land for biofuels that would have otherwise been used for an alternate use absent the biofuel production. EPA has relied on peer-reviewed agricultural sector models to conduct this work. These models are used (and have been used historically) to predict how the market will respond to these type of changes. This work has established that indirect emissions comprise a significant portion of the total lifecycle emissions of biofuels.

In developing a lifecycle methodology that incorporated indirect effects we focused on maximizing transparency and utilizing the many noted experts in this field, including those from industry, academic researchers and other federal agencies. For example, we met regularly with the USDA and turned to their experts for key data points (e.g. crop yield assumptions). The range of viewpoints and information we have received through this process has enabled the Agency to prepare a technically sound and scientifically robust analysis of the full lifecycle GHG emission impacts of biofuels. We then built on this process by holding a two-day public workshop on the lifecycle methodology and conducting a formal, scientific peer review of key elements of the methodology.

18. Will the EPA make all of its analysis and the models it used to determine indirect land change available to the public? If so when? If not, why not?

All models, data, spreadsheet calculations, and results input and generated in the lifecycle analysis are publicly available. Please see the NPRM docket at www.epa.gov/otaq/renewablefuels/index.htm. In addition, EPA recently held a two-day public workshop on our lifecycle analysis during which each major element of the methodology was presented and discussed.

19. **It is clear that there is no scientific consensus that indirect land use change is the result of increased biofuels production (cite the 111 PhD letter among others). Indirect land use is not a parameter for Life Cycle Analysis as set forth by the International Standards Organization in ISO 14040 and 14044. The EU decided to postpone the inclusion of indirect effects in its assessment of GHG emissions. The State of California recognizes that there are problems with quantification of indirect effects as part of their low carbon fuel standard and decided to study this theory over the next 20 months – why does the EPA persist in including indirect land use change in its analysis?**

    EISA mandates that significant indirect effects such as land use change be incorporated into the RFS lifecycle assessment. The International Organization for Standardization (ISO) sets out guidelines for development of lifecycle analysis and advises that lifecycle boundaries should include all components with significant effects on the environmental impact (i.e. greenhouse gas emissions) and expanded to take into account additional functions related to co-products. EPA follows this guidance by incorporating indirect land use change into the lifecycle analysis in a manner that appropriately takes into account co-products.

    The State of California and the many independent studies on this topic have reached the same conclusion regarding indirect land use – and that is that indirect land use change in response to biofuel production can significantly impact associated lifecycle GHG emissions and therefore it must be considered. In fact, we understand that California has finalized their rulemaking including indirect land use change. EPA continues to communicate closely with the California Air Resources Board and with the European Commission and EU countries in regards to our respective work on greenhouse lifecycle assessment for biofuels and on land use change.

    EPA recognizes there is uncertainty in these analyses, which is why we are pursuing formal peer reviews of key components of the methodology, soliciting comments before finalizing the rule, and incorporating a process that recognizes that the science in this area will continue to evolve even after a final rule.

20. **Indirect land use has deeply divided the scientific community and consensus does not exist. Before indirect effects apply to one sector of the U.S. economy and the only sector currently displacing foreign oil this needs to get figured out, and only then, should it be applied at all. It certainly cannot be applied to only biofuels. Please describe for this committee – in detail and timeline – your thoughts on "indirect land use effects" from tarsands, coal, and foreign oil?**

    Our work to date has found that petroleum fuel production does not have the same indirect land use change emissions associated with biofuels because, unlike biofuels, there is not the same opportunity cost of land needed for petroleum extraction in the sense it is not replacing land that would otherwise be used to provide resources for an existing market (i.e., crop based biofuels displacing crops used for feed). There is potentially direct land use change emissions associated with extraction but these are

estimated to be insignificant due to the relatively small amount of land required and the large amount of energy produced over the life of a crude oil well.

For the final rule, we are also evaluating other indirect impacts associated with petroleum fuel production, such as petroleum product supply and demand changes associated with a marginal change in transportation fuel use. This will need to be evaluated in the context of the Act requirements of using a 2005 average baseline for petroleum fuels. EPA also is continuing to evaluate direct emission estimates for the final rule, including, for example, land needed in the surface mining of tar sands.

21. From a scientific and economic standpoint - does the disparity in application of this theory – bother the agency responsible for regulation?

EPA's responsibility is to follow the law and, on this point, the law is clear. We are required to assess renewable fuel lifecycle greenhouse gas emissions, including direct emissions and significant indirect emissions, such as significant emissions from land use change. We are required to use a 2005 average petroleum baseline fuel. From a scientific standpoint, we use the same lifecycle boundaries for biofuels and petroleum-based fuels when addressing both domestic and international greenhouse gas impacts, in that we are including international extraction emissions from crude oil.

As mentioned above, for the final rule, we are also evaluating indirect impacts associated with petroleum fuel production, such as petroleum product supply and demand changes associated with a marginal change in transportation fuel use. This will need to be evaluated in the context of the Act requirements of using a 2005 average baseline for petroleum fuels.

22. During the week of April 22, 2009 - a study looking at one indirect effect from petroleum was published in the academic journal *Biofuels, Bioproducts and Biorefining*. The authors from the University of Nebraska found that the indirect emissions from safeguarding oil supplies in the Middle East <u>double</u> the carbon intensity of our gasoline imports from that part of world. Have you given any thought to the indirect emissions of foreign oil due to overseas military operations and expenditures? Have you seen the study? Has EPA considered this?

We are aware of this particular report and have studied and considered how to measure the indirect emissions of foreign oil due to overseas military operations. EPA has explored this issue in a peer reviewed study of the energy security benefits of reducing U.S. oil imports. The review concluded that attribution of military costs to particular missions or activities is difficult. So while there may be a link between military expenditures and petroleum production, there is no methodology for allocating a portion of military expenditures to oil production and specifically an incremental change in oil imports. The same would be true from a lifecycle GHG emission context in that there is no methodology for allocating these emissions to petroleum production. However, this is an area we are continuing to study and one we specifically seek comment on in the proposed rule. In particular, we have asked for comment on how we can estimate the

emissions associated with maintaining a U.S. military presence to help secure stable oil supply from potentially vulnerable regions of the world given the difficulty of attributing these emissions to particular missions or activities. Another consideration is that we must apply the same lifecycle boundaries for biofuels and petroleum-based fuels when addressing both domestic and international greenhouse gas impacts and therefore should also then consider emissions from military expenditures to protect domestic agriculture interests.

23. Did EPA work with other federal agencies and CARB on your modeling? Did CARB use a different set of models than EPA? If so, why? Did you find fault with the CARB modeling?

EPA worked very closely with other federal agencies, in particular the Departments of Agriculture and Energy. Early in the process, we coordinated our analytical plan, receiving their concurrence. This was followed by numerous consultations and briefings along the way. We relied heavily on the technical inputs of USDA and DOE as we developed the best assumptions to use and then modeled the impacts of the rule. We similarly coordinated with CARB, sharing assumptions, results, and methods. Both EPA and CARB agreed that important assumptions used in running these models should be consistent and we worked closely to assure that was the case. We continue to work with CARB to improve the lifecycle GHG assessment of biofuels. In addition, we discuss and ask for comment in the NPRM on the approach that CARB has taken in their program.

24. In order to meet the requirements of the RFS2 for corn ethanol it is 15 billion gallons by 2022 – I assume that if no new virgin acres came into production to meet that requirement, then by definition your ILUC number for corn ethanol would be zero, correct? If yes, then the reduction of GHG for corn ethanol should be 60%, not the 16% in the rule? Can you please clarify?

No, that is not correct. Our methodology compares land use changes occurring under two scenarios—one with the RFS volume mandates in place and one without. So we are considering for a given year, the opportunity cost of using feedstocks and land for biofuels production as opposed to what the land would be used for absent biofuels production. Therefore, even if corn ethanol production increased from current levels to 15 Bgal in 2022 without any observable land use change in the U.S., there would still be an indirect land use change associated with the corn ethanol production in 2022. What we are comparing is how much land would be required to meet worldwide demand for food and feed in 2022 assuming the RFS2 in place versus no RFS2. So even if yields are increasing to help meet increasing demand over time, the increased demand for land associated will biofuels will have an indirect impact from what would have happened otherwise.

Question Submitted by: ***The Honorable Stephanie Herseth-Sandlin***

At the hearing on May 6, 2009, you testified in response to my questioning that the indirect emissions were broken out to show the difference between international and domestic sources. For corn ethanol, for example, EPA has provided a table (Table VI.C.1-1) which appears to outline various elements of the lifecycle analysis for a natural gas dry mill that dries its distiller grains (p. 315). Table VI.C.1-2 then provides two columns of EPA's estimate of reductions under two options for each of the corn ethanol pathways identified by EPA (p. 317). EPA does not explain how these tables reflect the fuel's lifecycle stage being considered as outlined in the remainder of the preamble or how Table VI.C.1-1 relates to the additional pathways in Table VI.C.1-2. I request that EPA provide the following information as requested in the tables listed below.

1) For Table VI.C.1-1 (and similar tables for other fuels), identify the fuel lifecycle stage being addressed by the emissions, a list of source of emissions for that stage, and whether such emissions are direct or indirect, and identify the total net emissions without international land use change and with international land use change. Where there are no emissions references for the petroleum baseline, please provide an explanation as to why there are no such numbers:

Modified Table VI.C.1-1
Absolute GHG Emissions for Corn Ethanol and the 2005 Petroleum Baseline
(CO_2-eq/mmBtu)
With and Without International Land Use Changes

	2005 Gasoline Baseline	**Natural Gas Dry Mill with dry DGs**	**2005 Gasoline Baseline**	**Natural Gas Dry Mill with dry DGs**
Lifecycle Stage	100 yr 2%		30 yr 0%	
Feedstock/Fuel Production	823,262	1,436,720	573,058	1,037,279
- Direct Emissions (list sources of emissions)	-Crude oil extraction -Transport of crude oil to refinery -Upstream and onsite energy use and emissions at refinery to produce gasoline -Distribution of gasoline	-Agricultural inputs and emissions from growing corn used in ethanol production -Land use change to grow corn used in ethanol production -Upstream and onsite energy use at ethanol production plant	Same as 100 yr 2%	Same as 100 yr 2%
- Indirect Emissions (list sources of emissions, excluding international land use changes)	- EISA requires that lifecycle GHG emissions of renewable fuels be compared to a 2005 average petroleum baseline. Determining indirect impacts would require EPA to estimate, for example, petroleum displaced by renewable fuel. This analysis	-Agricultural inputs and emissions from growing crops indirectly impacted by use of corn for ethanol production (domestically and internationally) -Indirect domestic land use changes including changes in soil management practices	Same as 100 yr 2%	Same as 100 yr 2%

	2005 Gasoline Baseline	Natural Gas Dry Mill with dry DGs	2005 Gasoline Baseline	Natural Gas Dry Mill with dry DGs
	seems inconsistent with the statute's 2005 baseline requirement. However, the NPRM seeks comment on this.	- Changes in livestock production		
Fuel and Feedstock Distribution and Delivery	Included in Feedstock/Fuel Production	174,327	Included in Feedstock/Fuel Production	121,346
Use of Finished Fuel (Tailpipe Emissions)	3,417,411	37,927	2,378,800	26,400
Net Total Emissions (w/o indirect emissions from international land use changes)	4,240,674	1,648,974	2,951,858	1,185,025
Indirect emissions from international land use changes	- EISA requires that lifecycle GHG emissions of renewable fuels be compared to a 2005 average petroleum baseline. Determining indirect impacts would require EPA to estimate, for example, petroleum displaced by renewable fuel. This analysis seems inconsistent with the statute's 2005 baseline requirement. However, the NPRM seeks comment on this	1,911,391	Same as 100 yr 2%	1,910,822
Net Total Emissions	4,240,674	3,560,365	2,951,858	3,095,846

2) For Table VI.C.1-2 (and similar tables for other fuels), identify the percent reductions without consideration of international land use changes, as follows:

Modified Table VI.C.1-2
Lifecycle GHG Emissions Changes for Various Corn Ethanol Pathways in 2022 Relative to the 2005 Petroleum Baseline

Corn Ethanol Production Plant Type	Percent Change from 2005 Petroleum Baseline (100 yr 2%, without international land use changes)	Percent Change from 2005 Petroleum Baseline (100 yr 2%, with international land use changes)	Percent Change from 2005 Baseline (30 yr 0%, without international land use changes)	Percent Change from 2005 Baseline (30 yr 0%, with international land use changes)
Note: EPA's approach to lifecycle modeling considers all significant direct and indirect sources of emissions. It is invalid to present results that only omit emissions from international land use change. Lifecycle modeling accounts for land use change as well as other "positive" indirect impacts in terms of biofuels GHG emissions, such as reductions in livestock emissions and				

shifting of crop production to regions with lower GHG impacts. The lifecycle modeling and results are internally inconsistent when only one of the indirect impacts is omitted. The results without international land use change presented below are for illustrative purposes only.				
Natural Gas Dry Mill with dry DGs	-61%	-16%	-60%	+5%
Natural Gas Dry Mill with dry DGs and CHP	-64%	-19%	-63%	+2%
Natural Gas Dry Mill with dry DGs, CHP, and Corn Oil Fractionation	-72%	-27%	-71%	-6%
Natural Gas Dry Mill with dry DGs, CHP, Corn Oil Fractionation, and Membrane Separation	-76%	-30%	-74%	-10%
Natural Gas Dry Mill with dry DGs, CHP, Corn Oil Fractionation, and Membrane Separation, and Raw Starch Hydrolysis	-80%	-35%	-79%	-14%
Natural Gas Dry Mill with wet DGs	-72%	-27%	-70%	-6%
Natural Gas Dry Mill with wet DGs and CHP	-75%	-30%	-74%	-9%
Natural Gas Dry Mill with wet DGs, CHP, and Corn Oil Fractionation	-78%	-33%	-76%	-12%
Natural Gas Dry Mill with wet DGs, CHP, Corn Oil Fractionation, and Membrane Separation	-81%	-36%	-80%	-15%
Natural Gas Dry Mill with wet DGs, CHP, Corn Oil Fractionation, and Membrane Separation, and Raw Starch Hydrolysis	-84%	-39%	-83%	-18%
Coal Fired Dry Mill with dry DGs	-32%	+13%	-31%	+34%
Coal Fired Dry Mill with dry DGs and CHP	-35%	+10%	-33%	+31%
Coal Fired Dry Mill with dry DGs, CHP, and Corn Oil Fractionation	-51%	-5%	-49%	+15%
Coal Fired Dry Mill with dry DGs, CHP, Corn Oil Fractionation, and Membrane Separation	-58%	-13%	-57%	+8%
Coal Fired Dry Mill with dry DGs, CHP, Corn Oil Fractionation, and Membrane Separation, and Raw Starch Hydrolysis	-67%	-21%	-65%	-1%
Coal Fired Dry Mill with wet DGs	-54%	-9%	-53%	+12%
Coal Fired Dry Mill with wet DGs and CHP	-56%	-11%	-55%	+10%

Coal Fired Dry Mill with wet DGs, CHP, and Corn Oil Fractionation	-63%	-17%	-61%	+3%
Coal Fired Dry Mill with wet DGs, CHP, Corn Oil Fractionation, and Membrane Separation	-70%	-25%	-69%	-4%
Coal Fired Dry Mill with wet DGs, CHP, Corn Oil Fractionation, and Membrane Separation, and Raw Starch Hydrolysis	-75%	-30%	-74%	-9%
Biomass Fired Dry Mill with dry DGs	-84%	-39%	-83%	-18%
Biomass Fired Dry Mill with wet DGs	-85%	-40%	-84%	-19%
Natural Gas Fired Wet Mill	-52%	-7%	-51%	+14%
Coal Fired Wet Mill	-25%	+20%	-24%	+41%
Biomass Fired Wet Mill	-92%	-47%	-91%	-26%

(3) As requested above, please provide a similar analysis for Table VI.C.1-3 (Corn Ethanol Lifecycle GHG Emissions Changes in 2012, 2017, and 2022).

Modified Table VI.C.1-3
Corn Ethanol Lifecycle GHG Emissions Changes in 2012, 2017, and 2022

Scenario Description	Percent Change from 2005 Petroleum Baseline (100 yr 2%)	Percent Change from 2005 Petroleum Baseline (100 yr 2%, without international land use changes)	Percent Change from 2005 Petroleum Baseline (30 yr 0%)	Percent Change from 2005 Petroleum Baseline (30 yr 0%, without international land use changes)
Note: EPA's approach to lifecycle modeling considers all significant direct and indirect sources of emissions. It is invalid to present results that only omit emissions from international land use change. Lifecycle modeling accounts for land use change as well as other "positive" indirect impacts in terms of biofuels GHG emissions, such as reductions in livestock emissions and shifting of crop production to regions with lower GHG impacts. The lifecycle modeling and results are internally inconsistent when only one of the indirect impacts is omitted. The results without international land use change presented below are for illustrative purposes only.				
Corn Ethanol Natural Gas Dry Mill in 2012 with dry DGs	-16%	-61%	-3%	-60%
Corn Ethanol Natural Gas Dry Mill in 2017 with dry DGs	-13%	-61%	+9%	-60%
Corn Ethanol Natural Gas Dry Mill in 2022 with dry DGs	-16%	-61%	+5%	-60%

(4) As requested above, please provide a similar analysis for Table VI.C.1-4 (Corn Ethanol Lifecycle GHG Emissions Changes Associated with Different Volume Changes).

Modified Table VI.C.1-4
Corn Ethanol Lifecycle GHG Emissions Changes Associated with Different Volume Changes

Scenario Description	Percent Change from 2005 Petroleum Baseline (100 yr 2%)	Percent Change from 2005 Petroleum Baseline (100 yr 2%, without international land use changes)	Percent Change from 2005 Petroleum Baseline (30 yr 0%)	Percent Change from 2005 Petroleum Baseline (30 yr 0%, without international land use changes)
Note: EPA's approach to lifecycle modeling considers all significant direct and indirect sources of emissions. It is invalid to present results that only omit emissions from international land use change. Lifecycle modeling accounts for land use change as well as other "positive" indirect impacts in terms of biofuels GHG emissions, such as reductions in livestock emissions and shifting of crop production to regions with lower GHG impacts. The lifecycle modeling and results are internally inconsistent when only one of the indirect impacts is omitted. The results without international land use change presented below are for illustrative purposes only.				
Corn Ethanol Natural Gas Dry Mill in 2022 with dry DGs; 2.7 Bgal change in corn ethanol volumes	-16%	-61%	+5%	-60%
Corn Ethanol Natural Gas Dry Mill in 2022 with dry DGs; 6.3 Bgal change in corn ethanol volumes	-6%	-52%	+14%	-51%

(5) How does EPA (or the models EPA used) determine what factor(s) cause specific land use change?

The methodology EPA has developed isolates the impacts of biofuels production, which allows us to differentiate and assign just the land use change directly caused by increases in renewable fuels. This approach considers the impacts of increased biofuels production vs. a baseline that incorporates the number of other factors you mention. Therefore the only change we measure is from biofuels production, keeping all other factors constant.

To do this work, we combine a suite of peer-reviewed process models and peer-reviewed economic models of the domestic and international agricultural sectors to determine direct and significant indirect emissions, respectively. These agricultural sector models

allow us to estimate the total additional cropland needed internationally and where (by country) expansion would occur for the specific factor of increased biofuels production. To determine what types of land are converted to meet this additional cropland demand, we use recent land use trends based on satellite data. These trends take into account a number of drivers, but for the purposes we are using them for (i.e., to determine what type of land is converted with increased cropland expansion) they apply for any driver of cropland expansion, including biofuels.

Questions Relating to Biodiesel:

(1) Is it correct that you took 2001 to 2004 land conversion rates and extrapolated those into the future to come up with the calculation of land use change you expect?

No, this is not the case. In our analysis, the causes of crop expansion are captured with economic modeling. We rely on well-established economic models to project the amount of crop expansion in each country resulting from increased biofuel production. We then use satellite data to determine not the amount of land that might be converted but what types of land will be used in a particular country if additional land is needed for crop production as a result of U.S. biofuels expansion.

We recognize that this is an area of potential uncertainty. Therefore, the use of satellite data is one of the components of the lifecycle analysis that we are having peer-reviewed and have specifically asked for comment on throughout the rulemaking process.

(2) If U.S. biodiesel production from 2001 to 2004 grew from 5 million gallons in 2001 to 25 million gallons in 2004, is it unreasonable to conclude that biodiesel was not a significant cause of land use change that occurred from 2001 to 2004? Why or why not?

No, this is not a correct conclusion. Our methodology compares land use changes occurring under two scenarios—one with the RFS volume mandates in place and one without. We are not comparing changes in emissions or land use over time but comparing the opportunity cost of using a feedstock or land for biofuel production in a given year. So a more appropriate comparison is what land use would have been in 2004 without the increase in biodiesel production.

Questions Submitted by: ***The Honorable Deborah Halvorson***

1. **As you know, in the 2007 energy bill EPA was tasked with determining the lifecycle greenhouse gas emissions of current and future transportation fuels as part of the new renewable fuels standards. EPA has released published for comment a proposed rulemaking on this issue, but has had difficulty in finding consensus on the methodology, especially with respect to the issue of emissions from indirect land use change.**

My understanding is that the issue of greenhouse gas emissions from indirect land use change is a highly controversial one in the scientific community, and that there is still a very limited understanding of how biofuels production – or petroleum production and other economic activities, for that matter – impact land use change around the world. What will EPA do to resolve this uncertainty, and how will it implement the renewable fuels standards in a timely fashion while continuing to develop a greater understanding of this complex problem?

As mandated by EISA, EPA's greenhouse gas emission assessments must evaluate the full lifecycle emission impacts of fuel production including both direct and indirect emissions, including significant emissions from land use changes. There is no question that this task was a challenge and required groundbreaking work. This is why we have taken every opportunity to test our assumptions, minimize uncertainties and maximize transparency.

Our proposal breaks out the various sources of GHG emissions to enable the reader to readily detect the impact of including international land use impacts. We also conducted a number of sensitivity analyses which focus on key parameters and demonstrate how our assessments might change under alternative assumptions. In addition to this sensitivity analysis approach, we will also explore options for more formal uncertainty analyses for the final rule to the extent possible.

In addition, we held a two-day public workshop on our methodology, conducted a complete peer review of four different elements of the analysis, and have been using the public comment period to continue our consultation with experts and stakeholders.

2. **Will EPA re-examine the indirect land use issue in light of new research showing that initial estimates may have been overstated?**

EPA has spent the last year and half developing a technically and scientifically sound analysis of the full lifecycle GHG emission impacts of biofuels that incorporates indirect land use changes, using well-accepted, peer-reviewed models. This process has included reviewing the research in this field and, in many cases, consulting with the authors of this research. Through this effort, EPA has determined that indirect emissions comprise a significant portion of the total lifecycle emissions of biofuels. Many studies in the peer-reviewed literature also show that indirect land use emissions comprise a significant portion of the total lifecycle emissions of some biofuel pathways.

We also recognize the significance of using lifecycle greenhouse gas emission assessments that include indirect impacts such as emission impacts of indirect land use changes and acknowledge the varying degrees of uncertainty in the different aspects of our analysis. As described above, we have taken a number of steps to address this uncertainty. However, EPA recognizes that the science in this area will continue to evolve even after a final rule. Thus, we are committed to revising and updating our analysis on an ongoing basis as new data and information comes available.

2. The issue of lifecycle analysis for biofuels is just one example of why scientists are critical to the mission at EPA. What will you do to ensure that scientists play a bigger role at EPA?

EPA is committed to using scientific expertise housed both within and outside the Agency. EPA's scientists, other Federal scientists (e.g. USDA, DOE) and scientists at U.S. universities have and will continue to directly contribute to the development of the data and models for the lifecycle analysis. In addition, EPA is conducting formal peer review processes for several key components of the lifecycle analysis. During this process, external scientists will extend their expertise to provide third-party feedback on EPA's methodologies. EPA will continue to use research and knowledge developed by the nation and the world's scientific community as we proceed in refining the lifecycle analysis proposed in the NPRM.

Throughout this work, EPA has remained committed to fostering sound science, consistent with the President's March 9, 2009 memorandum on scientific integrity. Our analyses are based upon the best science available, with every step of the process building upon our extensive collaboration with both federal and independent scientific experts.

3. We are supposed to have 500 million gallons of biodiesel in 2009. My district lost a biodiesel plant this year. How is EPA insuring 500 million gallons are used this year?

Although the RFS2 program will not be in place in 2009, after coordinating with our stakeholders, we are proposing a means of still implementing the statutory requirement for 500 million gallons of biomass-based diesel for 2009. While the RFS1 regulations do not provide a mechanism for putting this requirement in place in 2009, in our Notice of Proposed Rulemaking we are proposing that the 2009 requirement of 500 million gallons and the 2010 requirement of 650 million gallons be added together, with the total volume of 1.15 billion gallons applicable in 2010 under RFS2. Obligated parties could then use credits (RINs) from both 2009 and 2010 to comply, and would have a strong incentive to blend biodiesel in 2009 in addition to 2010.

AL 11-000-6910

CORY GARDNER
4TH DISTRICT, COLORADO

ENERGY AND COMMERCE COMMITTEE
ENERGY AND POWER SUBCOMMITTEE
ENVIRONMENT AND ECONOMY SUBCOMMITTEE
OVERSIGHT AND INVESTIGATIONS SUBCOMMITTEE

Congress of the United States
House of Representatives
Washington, DC 20515–0604

213 CANNON HOUSE OFFICE BUILDING
WASHINGTON, DC 20515
(202) 225-4676

123 NORTH COLLEGE AVENUE, SUITE 220
FORT COLLINS, CO 80524
(970) 221-7110

822 7TH STREET, #9
GREELEY, CO 80631
(970) 351-8007

301 5TH STREET
LAMAR, CO 81052
(719) 931-4003

109½ SOUTH 3RD STREET
STERLING, CO 80751
(970) 522-0203

May 3, 2011

The Honorable Lisa Jackson
Administrator
U.S. Environmental Protection Agency
1200 Pennsylvania Avenue, NW
Washington, D.C. 20460

Dear Administrator Jackson:

I write to request follow up information relating to a hearing in the House Energy and Commerce Subcommittee on the Environment and Economy which took place on April 14, 2011. At this hearing, EPA Assistant Administrator Mathy Stanislaus explicitly stated that a direct impact on jobs is not taken into account during economic analyses on proposed rules. I seek further clarification on the process and procedure by which EPA performs its economic analyses, and how the impact of various regulations on jobs will be taken into consideration in the future.

On January 18, 2011, President Obama issued Executive Order 13563 (hereafter "EO" or "EO 13563") setting forth criteria to improve regulations and regulatory review. The EO's General Principles clearly state that "Our regulatory system must protect public health, welfare, safety, and our environment while promoting economic growth, innovation, competitiveness, and job creation." In my interaction with Assistant Administrator Stanislaus, it was made clear that the direct impact on job creation has not been a part of the economic analyses done by the EPA in the past. It is my opinion that such an analysis is insufficient and incomplete.

I respectfully ask for a timely response to the following questions and requests that arose as a result of the hearing on April 14, 2011:

- Is it the case that prior to EO 13563, the EPA did not take into account job losses or gains in an economic analysis of every economically significant regulation?
- What is the methodology used by the EPA to plan and perform a thorough and complete economic analysis of a particular regulation, including analysis of regulatory alternatives? How does EPA decide whether the loss or creation of jobs directly as a result of a regulation should be part of a thorough economic analysis? Please provide me with examples of regulatory analyses in which EPA has assessed the impact on employment, and the rationale for performing jobs analysis for these regulations.
- Regarding the Coal Ash Rule, EPA's analysis shows that there is a larger proportion of low-income families in the areas where the analyzed plants are located, and also that this regulation would increase their electricity prices. Please explain why EPA decided not to include an assessment of how job losses combined with increased electricity prices in these communities would impact these families.

PRINTED ON RECYCLED PAPER

- How will the EPA quantify both the direct and indirect effects on U.S. job creation and employment associated with particular regulations in the future, as directed by the President's EO?
- Please provide me with a list of all rules that have been finalized for which the EPA has not yet performed an economic analysis of the regulation's direct and indirect impact on jobs.
- EO 13563 directs the executive branch to periodically review "existing significant regulations to determine whether any such regulations should be modified." Will this review include an analysis of the impact various regulations have had on jobs since they were finalized?

Thank you for your timely attention to this matter. I look forward to your response.

Sincerely,

Cory Gardner (CO-4)
Member of Congress

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CONGRESSIONAL AND
INTERGOVERNMENTAL RELATIONS

JUN 16 2011

The Honorable Cory Gardner
U.S. House of Representatives
Washington, DC 20515

Dear Congressman Gardner:

Thank you for your letter of May 3, 2011, providing questions following the April 14, 2011 hearing on "H.R. 1391- A Bill to Prohibit the EPA from Regulating Coal Combustion Residuals Under Subtitle C of the Solid Waste Disposal Act."

Please find the enclosed responses to your questions. If you have further questions, please contact me or your staff may contact Carolyn Levine in EPA's Office of Congressional and Intergovernmental relations at (202) 564-1859.

Sincerely,

Arvin R. Ganesan
Deputy Associate Administrator
for Congressional Affairs

Enclosure

EPA Responses to Questions from the
April 14, 2011 Hearing on
H.R. 1391- A Bill to Prohibit the EPA from Regulating Coal Combustion

Congressman Cory Gardner (R-CO-4)

1. Is it the case that, prior to EO 13563, the EPA did not take into account job losses or gains in an economic analysis of every economically significant regulation?

Response: Consistent with relevant Executive Orders, EPA estimates the benefits and costs of all of its economically significant rules. Labor, a key factor of production, is intrinsically incorporated into EPA's economic analyses and EPA pays close attention to the impact of our rules on industry and the economy. The Agency has supplemented these detailed analyses on a case-by-case basis with a qualitative or quantitative analysis that looks specifically at employment impacts, but it has never been standard practice of the Agency (under any Administration) to perform an employment analysis for every rule. EPA is keenly aware that these are tough economic times and there is particular concern about impacts on employment -- that is why we have been performing quantitative employment analyses on economically significant rules more frequently than the last Administration.

2. What is the methodology used by the EPA to plan and perform a thorough and complete economic analysis of a particular regulation, including analysis of regulatory alternatives? How does EPA decide whether the creation of jobs directly as a result of regulation should be part of a thorough economic analysis? Please provide me with examples of regulatory analyses in which EPA has assessed the impact on employment, and the rationale for performing jobs analyses for these regulations?

Response: EPA's *Guidelines for Preparing Economic Analyses* (USEPA 2010) provides the basic framework for the Agency's economic analyses. Recently revised and updated to reflect the latest literature, the Agency generally received strong support and praise from its Science Advisory Board on the document:

> "By providing thorough and consistent technical advice regarding the application of benefit cost analysis to environmental problems, the Guidelines significantly elevate the quality and transparency of the information upon which environmental decisions are made. We again applaud EPA for developing these Guidelines and the Agency's commitment to continually revise and improve them. Indeed, we believe these Guidelines could serve as a successful model for all state and federal agencies who undertake benefit-cost analysis in support of environmental decision making." [1]

EPA's analyses also comply with OMB Circular A-4's guidelines on economic analysis. Because each regulation is different, EPA examines them on a case-by-case basis to determine if additional analysis on

---

[1] USEPA. 2009. Science Advisory Board (SAB) Advisory on EPA's draft *Guidelines for Preparing Economic Analyses (2008)*. EPA-SAB-09-018. P iii. http://yosemite.epa.gov/sab/sabproduct.nsf/cf0020ec3f99320a85256eb4006b6bd1/559b838f18c36f078525763c0058b32f/$FILE/ATTC1H4M/EPA-SAB-09-018-unsigned.doc

employment impacts is warranted, and if the appropriate analytical tools are available to provide a quantitative estimate.

As an example, EPA performed an employment analysis as part of the National Emission Standards for Hazardous Air Pollutants for Major Sources: Industrial, Commercial & Institutional Boilers and Process Heaters. Published, peer-reviewed work by Morgenstern, Pizer, and Shih (2002) which examined actual employment impacts in regulated industries gave EPA an analytical basis for estimating employment impacts for the industrial sectors in this specific NESHAP major source rule. Our analysis estimates that the rule's impact on employment will be modest, but will, on net, result in an increase in employment in those sectors.

3. Regarding the Coal Ash Rule, EPA's analysis shows that there is a larger proportion of low-income families in the areas where the analyzed plants are located, and also that this regulation would increase their electricity prices. Please explain why EPA decided not to include an assessment of how job losses combined with increased electricity prices in these communities would impact these families.

Response: As discussed in response to questions posed by several Subcommittee Members during the April 14, 2011 hearing, EPA conducted an extensive Regulatory Impact Analysis to estimate the economic and environmental benefits and costs of the Coal Ash Rule. Among its other estimates, the RIA estimated the potential increase in the cost of disposal of coal ash that could result from the regulatory options—that is, a Subtitle C regulatory approach and a Subtitle D regulatory approach that EPA considered in the proposal -- and the potential impacts of those estimated cost increases on electricity prices.

In estimating the upper-bound of a potential electricity price increase, the RIA evaluated a hypothetical scenario whereby the electric utility "passes through" 100 percent of regulatory costs to their customers. The RIA estimated that even with a 100 percent cost pass-through, the potential increases in electricity prices to coal fired electricity customers would be an average of 0.795 percent for the Subtitle C option and an average of 0.172 percent for the Subtitle D option, relative to the 2009 national average electricity price of $0.088 per kilowatt hour. Given these small effects, electricity production would not be expected to change much, if at all, as a result of the proposed rule. Therefore, EPA anticipates there would be little, if any, impact on jobs associated with electricity production.

Although not calculated in the RIA, it is possible to translate these potential maximum electricity price increases for the 100% hypothetical cost pass-thru scenario into potential maximum increases in the average monthly electricity bills paid by U.S. households. This translation is based on the most recent (2008) electricity consumption data available for the U.S. from the Energy Information Administration. Under the Subtitle C option, the average monthly household electricity bill would be expected to increase by a maximum of roughly 82 cents per month, less if part of the regulatory costs come from profits of the facility. Under the Subtitle D option, the average monthly household electricity bill would be expected to increase by a maximum of roughly 18 cents per month.

In addition, as part of the RIA, EPA conducted an analysis on the potential ancillary impact on coal ash beneficial use industries. Please note, since the proposed rule retained the Bevill exclusion regarding the beneficial use of coal combustion residuals (CCRs), the proposed rule would not require that CCRs beneficially used be subject to any federal regulation. Thus, no "direct costs" would apply as a result of the proposed rule. However, because of concerns that were raised regarding the "stigma" of calling CCRs hazardous wastes, the 2010 RIA conducted an analysis that estimated three alternative future scenarios involving an increase in the beneficial use of CCRs, a decrease in the beneficial use of CCRs,

and no change in the beneficial use of CCRs by other industries. For each scenario, the RIA estimated the future possible change in the annual market cost of these three scenarios on continued future use of CCRs, compared to the alternative market cost to the other industries for purchasing substitute raw materials.

EPA would expect that an increase in the beneficial use of CCRs might result in an increase in jobs related to CCR-beneficial use industries, although it could result in a decrease in jobs related to raw material supply industries for which CCR would be a substitute material, while a decrease in the beneficial use of CCRs might result in a decrease in jobs related to CCR-beneficial use industries, but might lead to an increase in jobs in industries related to the use of substitute materials for CCRs. In each beneficial use scenario, EPA anticipates an increase in jobs associated with the pollution control equipment and services for compliance with the rule. The RIA with the proposed rule did not include specific indications of the magnitude or net effects of these jobs impacts. However, EPA specifically solicited comment on market costs and employment, and will consider those comments as we develop a final rule.

4. How will the EPA quantify both the direct and indirect effects on U.S. job creation and employment associated with particular regulation in the future, as directed by the President's EO?

Response: On January 18th 2011, President Obama issued a new executive order, EO 13563. This executive order reaffirms that:

a. "Our regulatory system must protect public health, welfare, safety, and our environment while promoting economic growth, innovation, competitiveness, and job creation." [2]

In particular, OMB's recent Draft Report to Congress clarifies:

b. "consistent with Executive Order 13563, regulatory decisions and priority-setting should be made in a way that is attentive to the importance of promoting economic growth, innovation, job creation, and competitiveness. The simplest method for achieving that goal is to continue to engage in careful analysis of both costs and benefits and as a general rule, to proceed only if the benefits justify the costs."[3]

EPA will be fully complying with EO 13563.

5. Please provide me with a list of all rules that have been finalized for which the EPA has not yet performed an economic analysis of the regulation's direct and indirect impact on jobs.

Response: So far this year, the only economically significant rule which has been finalized for which the EPA did not perform an analysis of employment impacts is the "Oil Pollution Prevention: Spill Prevention, Control and Countermeasure (SPCC) Rule – Amendments for Milk and Milk Products Containers." This rule resulted in an annualized savings of $146 million.[4]

---

[2] http://www.whitehouse.gov/the-press-office/2011/01/18/improving-regulation-and-regulatory-review-executive-order

[3] OMB, Draft 2011 Report to Congress on the Benefits and Costs of Federal Regulations and Unfunded Mandates on State, Local, and Tribal Entities, page 50 (http://www.whitehouse.gov/sites/default/files/omb/legislative/reports/Draft_2011_CBA_Report_AllSections.pdf

[4] http://www.gpo.gov/fdsys/pkg/FR-2011-04-18/pdf/2011-9288.pdf

6. EO 13563 directs the executive branch to periodically review "existing significant regulations to determine whether any such regulations should be modified." Will this review include an analysis of the impact various regulations have had on jobs since they were finalized?

Response: EPA will be examining a variety of factors as we review regulations under EO 13563, including, where appropriate, the available data on the economic impacts of such rules. EPA notes that, peer-reviewed studies of the retrospective impacts of environmental regulations on employment have often failed to find major employment impacts, even in heavily regulated sectors. For example, Morgenstern et al. (2002) estimated employment impacts for four heavily regulated industries (pulp and paper, refining, iron and steel, and plastic) and concluded:

a. "We find that increased environmental spending generally does *not* cause a significant change in employment. Our average across all four industries is a net gain of 1.5 jobs per $1 million in additional environmental spending.... These small positive effects can be linked to labor-using factor shifts and relatively inelastic estimated demand." [5]

Harvard Economist Dale Jorgenson recently agreed that that there was no evidence to support large job losses linked to environmental regulations, saying: "I wouldn't say that there is any academically respectable support for that view."[6]

---

[5]Jobs Versus the Environment: An Industry-Level Perspective. Richard D. Morgenstern, William A. Pizer, and Jhih-Shyang Shih, *Journal of Environmental Economics and Management* | May 2002 | Vol. 43, no. 3 | pp. 412-436.
These results are similar to Berman and Bui (2001) who find that while sharply increased air quality regulation in Los Angeles to reduce NOx emissions resulted in large abatement costs they did not result in substantially reduced employment.
[6] Is EPA's greenhouse gas plan a job killer? History might offer clues. Christian Science Monitor. (March 2, 2011)

AL-10-001-1931

EPA Responses to Questions for the Record (QFRs) From the Hearing Before the House Committee on Transportation and Infrastructure, Subcommittee on Water Resources and Environment, Held on April 28, 2010, Entitled "Protecting and Restoring America's Great Waters, Part II: The Columbia River and San Francisco Bay."

Questions From Representative John Boozman:

1: According to the EPA, the San Francisco Bay and the Columbia River are rated as "Fair". In the President's FY2010 budget, EPA requested $5 million in funding for San Francisco Bay and received $7 million through the annual appropriations process in addition to what it receives from the National Estuary Program. While this is an important estuary, of the 28 estuaries in the program, how many are rated as "Poor" and how much funding is provided for those estuaries?

The indicator of "fair" comes from the National Estuary Program (NEP) Coastal Condition Report issued in 2007. The report provided an overall assessment or snapshot of the condition of each of the Nation's 28 NEPs, including San Francisco Bay and Columbia River Estuary. These assessments employed four indices: water quality, sediment quality, benthic condition, and fish tissue contaminants.

These indices are based on the large amount of National Coastal Assessment (NCA) monitoring data collected from 1997-2003 on the condition of the nation's NEP estuaries. The report states that the overall condition of the nation's NEP estuaries is generally fair, but that regionally, the Puerto Rico and Northeast Coast regions are rated poor, the Gulf Coast and West Coast regions are rated fair, and the Southeast Coast is rated fair to good. Nationally, 37% of the collective NEP estuarine area is in poor condition with five NEPs rated poor: Delaware Estuary, Long Island Sound, Narragansett Bay, NY-NJ Harbor, and San Juan Bay. The five NEPs with estuaries that were rated poor each received $800,000 in EPA Section 320 funding in 2010; Long Island Sound also received $7 million via a separate line item

2: In what case would a "Fair" estuary get priority funding over a "Poor" estuary?

The NEP Coastal Condition Report that rated the quality of the NEP estuaries was not designed as a tool for making funding decisions. While the report provides valuable information on water quality, sediment quality, benthic condition and fish tissue contaminants, the NEPs' efforts are broader in scope with actions that go beyond water quality attainment to areas such as habitat restoration, citizen involvement, and public access to estuarine resources.

3: How does EPA set its priorities and criteria for the National Estuary Program and for special cases like San Francisco Bay?

EPA provides a uniform level of funding across its 28 NEPs, including the San Francisco Bay Estuary Partnership (SFEP). In addition, EPA requests additional support for certain targeted

geographic programs, including the San Francisco Bay, based on decisions made during annual budget development processes.

4: Why does the San Francisco Bay get funds above and beyond what the Columbia River gets?

EPA decided, as part of its FY 2010 and FY2011 budget development processes, to request targeted resources for the San Francisco Bay and the Bay-Delta Estuary. Prior to FY 2010, additional funding for San Francisco Bay was provided via Congressionally-targeted appropriations.

5: According to the National Estuary Program's brochure, "the NEP's have obtained over $10 for every $1 provided by EPA, generating nearly $4 billion for on-the-ground efforts since 2003." Does EPA track what has been accomplished with this $4 billion? If so, what types of benefits have been derived from this $4 billion? What has the $4 billion been spent on?

The EPA assesses the progress of the NEPs through a number of indicators, one of which is the number of dollars leveraged from their CWA Section 320 funds and how those funds are spent. Between 2003 and 2009, the 28 NEPs' primary leveraged dollars were invested as follows:

a. Protecting habitat	34%
b. Wastewater treatment	26%
c. Restoring habitat	13%
d. Nonpoint source and stormwater	11%
e. Monitoring and research	7%
f. Administration and other	9%

Primary leveraged dollars, which represent about half the total or approximately $2 billion, are those where the NEP played a leadership role in obtaining the resources. The benefits from the leveraged funds include the protection and restoration of over 1.3 million acres of habitat that sustains birds, shellfish, and other species living in and around the estuaries.

6: In the last ten years, how much EPA funding has been dedicated to the San Francisco Bay and how much EPA funding has been dedicated to the Columbia River? (This number should include National Estuaries Program funding and funding from other EPA programs.) Can you quantify for us the benefits that have resulted from this investment?

In the last ten years $16.9 million was provided to EPA Region 9 and targeted to address environmental problems in San Francisco Bay. This is in addition to resources associated with the implementation of the core Clean Water Act Programs (e.g., the NPDES permitting Program) in the Bay area. Over the same time period, $5.4 million was provided to the San Francisco Estuary Partnership NEP. In the last ten years $5.4 million was provided to the Lower Columbia River Estuary (LCREP) NEP to address challenges in the lower Columbia River below the Bonneville Dam. Also, as part of a periodic budget crosscut exercise, EPA has estimated that it provides approximately $17 million per year in direct and indirect support of salmon recovery efforts in the Columbia River Basin. The benefits from this funding include the protection and

restoration of 6,370 acres of habitat in the lower Columbia River area and 116,226 acres of habitat in the San Francisco Bay area. This habitat sustains birds, shellfish, and other species living in and around the estuaries and improves water quality.

While EPA has no single budget line item specifically allocated to the entire Columbia River Basin, several EPA programs provide resources addressing environmental issues throughout the Basin.

7: This Committee has been told by the EPA that the Columbia River has received $5.6 million through the NEP over the last ten years. However, according to the testimony from the Lower Columbia River Partnership, the Columbia River receives no funding from the EPA. Can you reconcile these two seemingly conflicting statements?

It is inaccurate to say that the remaining portion of the Columbia River has received no funding. As stated in the answer to question six, EPA has provided $5.4 million to LCREP to address challenges in the lower Columbia River, and has estimated a total of approximately $17 million per year in direct and indirect support of salmon recovery efforts in the the Columbia River Basin.

8: Your testimony states that HR 5061, legislation authored by Congresswoman Speier, "is consistent with EPA's commitment to the San Francisco Bay." However, while Congresswoman Speier's legislation would authorize $100 million for just San Francisco Bay, the Administration only requested approximately $27 million for all 28 estuaries in the National Estuaries Program. Can you elaborate?

EPA is committed to protecting human health and the environment in the San Francisco Bay as well as all of the estuaries of the United States. EPA's statement that HR 5061 is consistent with EPA's commitment to the San Francisco Bay was simply meant to recognize that EPA too supports efforts to protect and restore San Francisco Bay.

9: Other than the National Estuary Program, what other programs fund cleanups or activities in estuaries?

A number of Federal programs, including the full suite of EPA Clean Water Act Programs, fund cleanups and restoration and protection activities in estuaries. Examples of other federal programs include:
(1) the Department of Commerce's National Oceanic and Atmospheric Administration has several programs including: the National Estuarine Research Reserves Program that conducts research and educational programs in support of estuarine protection and restoration; Community-based Restoration Program which provides technical and financial assistance to communities and governments to restore coastal habitats including estuarine areas; Damage Assessment Remediation and Restoration Program, which responds to and restores areas after hazardous waste events such as oil spills; and the NOAA Chesapeake Bay Office which supports habitat conservation, coastal management, fishery stock assessment, ecological research, monitoring, and education; (2) the Army Corps of Engineers and Department of Agriculture also fund activities that support estuarine protection and restoration;

(3) the US Geological Survey funds water monitoring; and,
(4) the US Fish and Wildlife Service funds wildlife and fishery monitoring and restoration work;

These agencies also implement the Estuary Restoration Act through an interagency council that coordinates Federal support for estuarine research, monitoring, and restoration projects.

10: According to EPA's website, the National Estuary Program has done a great deal of planning and outreach. What is the National Estuary Program doing to ensure pollution and toxicity levels are falling? What are the program partners doing to ensure pollution and toxicity levels are falling?

The NEPs are evaluated by EPA to ensure that they are making progress reducing pollution and toxicity levels. EPA conducts triennial reviews that assess NEP activities related to EPA's core programs, including water quality monitoring, nonpoint source controls, and wastewater management efforts. The following examples illustrate some of the approaches the NEPs and their partners are taking to achieve these reductions.

- The Coastal Bend Bays and Estuaries NEP reviews water quality standards, numerical criteria, and designated uses for the estuaries under its charge, helping to establish biological criteria as a component of water and sediment quality criteria, contributing to the establishment of wastewater discharge permits on a watershed basis, and fostering the development of a regulatory permitting process for mariculture operations.

- The Partnership for the Delaware Estuary NEP collaborates with the Delaware River Basin Commission States, federal agencies, and interested parties to develop Total Maximum Daily Loads, including Waste Load Allocations, for many of the toxic substances, such as PCBs.

- The Morro Bay NEP fosters best management practices through outreach that educates home owners and marina operators on ways to reduce pollution from boat yards and other urban sources. Boat owners have recently applied for general stormwater permits and the NEP is helping to facilitate this process.

- The Peconic Estuary NEP focuses on water quality preservation by promoting and enhancing best management practices that address contaminated runoff from roads, golf courses, and other sources that contaminate estuaries. Public education and outreach are integral to these efforts that have recently focused on the use, misuse, and disposal of household hazardous products.

- The Puget Sound Partnership is collaborating with the Washington State Department of Ecology, and others to perform cleanup of contaminated sediment sites. These efforts include managing the sediments so that bioaccumulative chemicals such as dioxin/furans are disposed of safely. Benefits of the clean ups include significantly decreased liver lesions in English sole after the interim action sediment cleanup was completed at the Eagle Harbor Superfund site.

AL-10-000-8078

The Honorable Doris O. Matsui

According to an economic analysis of various smart growth strategies that have been implemented nationwide, increasing transportation choices actually saves taxpayers money. The average middle-class family spends about 25 percent of its household budget on transportation alone.

1. **Question: What are effective policies that would address the amount Americans drive their vehicles?**

   Answer: Policies that support the development of cost-effective alternatives to driving – such as public transit, smart growth, and carpools – can help reduce greenhouse gases and oil consumption, as well as protect Americans from increases in gas prices. The recent House and Senate climate bills outline approaches to support these travel efficiency strategies, including assessment of the greenhouse gas impact of transportation infrastructure investments; a call for integrated transportation and land-use plans and standardized models; and establishment of transportation greenhouse gas reduction targets at the state and Metro Planning Organization (MPO) level.

2. **Question: According the Environmental Defense Fund, middle-class families living in communities with transportation choices spend only about 9 percent of their household budgets on transportation. How does development centered on transportation choice drive the kinds of cost and emissions savings that we seek? And how can the EPA support such development projects?**

   Answer: A recent report, *Moving Cooler*, which EPA, DOT and others helped to fund, provides new evidence that travel efficiency strategies such as public transit, smart growth, carpools, and intermodal freight can reduce GHG emissions. According to the report's analysis of a "Low Cost Bundle" of strategies, these strategies would reduce emissions by 15 percent to 18 percent below projected 2050 levels. The report notes that achieving these reductions will require considerable changes in transportation infrastructure, land use patterns, travel behavior, and public policy. According to the *Moving Cooler* report, for 5 of the 6 bundles of strategies evaluated, including the "Low Cost Bundle," annual savings of direct vehicle costs exceed estimated implementation costs by between $72 and $112 billion, but the report also caveats this result, noting that it has not included some important cost and benefit categories in its assessment.

   In addition, the Department of Transportation's recent Report to Congress, *Transportation's Role in Reducing U.S. Greenhouse Gas Emissions,* which looks at strategies for reducing emissions individually, reached similar conclusions with respect to land use and transportation. The report found that that increasing transportation choices for users can reduce greenhouse gas emissions and costs.

We believe that smart growth and mass transit can play an important role in helping to reduce greenhouse gas emissions from the transportation sector. The air quality planning process under the Clean Air Act has provided an important framework for the integration of transportation, land-use, and air quality planning. This process has been able to quantify and communicate to local officials and the public the important role transit and smart growth development can play in helping to reduce emissions. A number of Smart Growth showcase projects in cities like Sacramento, Charlotte, Atlanta, and Denver were initiated, in part, to address transportation and air quality issues that were raised under the CAA process. EPA also supports smart growth and transit by developing models and technical guidance documents to assess and measure emission benefits, conducting case studies, and providing technical assistance to local areas.

3. **Question: How will the EPA encourage smart growth and green transportation – such as Complete Streets policies to promote bicycling, walking and transit in order to reduce oil consumption in the transportation sector?**

   Answer: EPA will continue to support the development of resources aimed at overcoming barriers to building more walkable and bike-friendly street networks in transit-oriented neighborhoods and traditional town centers. For example, along with FHWA, we supported the development of a guidebook on walkable street design published by the Institute of Transportation Engineers. This *ITE Recommended Practice* shows how to build major urban thoroughfares that are walkable and consistent with national design standards. Additionally, EPA worked directly with Caltrans to develop *Smart Mobility – A Call to Action for the New Decade,* a document that charts core principles, model policies and performance measures. EPA has also developed various other resource documents that help communities implement a range of green transportation strategies. Finally, we will continue to work through the HUD DOT EPA Sustainable Communities Partnership to promote complete streets policies and walkable neighborhoods

4. **Question: According to the Center for Clean Air Policy, transportation efficiency can actually reduce emissions at a net gain to taxpayers. In Sacramento, for instance, the Blueprint project – which promotes comprehensive long-term growth through compact, mixed-use development and more transit choices – will yield 7.2 million metric tons of reductions through 2050 at a net cost of $198 per ton. Is there any other sector where each ton of carbon saved also results in such significant consumer savings?**

   Answer: EPA has not conducted any studies comparing the cost-effectiveness of travel efficiency strategies with other GHG emission reduction strategies. We recognize that there can be substantial cost savings from smart growth type

development, as reported by NAS in a study titled, *Costs of Sprawl – 2000*[1]. According to this NAS study:

- Water and Sewer Infrastructure Savings: The study estimates that between 2000 and 2025, water and sewer infrastructure costs will be $190 billion, assuming conventional development patterns. Under the study's Smart Growth projection, these costs would be only $177 billion, for a savings of $13 billion.
- Road Infrastructure: The study estimates that between 2000 and 2025, road infrastructure costs will be $927 billion, assuming conventional development patterns. Under the study's Smart Growth projection, these costs would be $817 billion, for a savings of $110 billion.
- Other Cost Savings: The study also estimates that Smart Growth development could save local governments $4.2 billion in school, police, fire and other local government costs, and that daily travel costs would be reduced by $8.9 billion due to shorter commutes, increased use of transit, and greater walkability.

5. **Question: In Sacramento, transit planning plays a central role in the long-term vision for our regional development. What role do you see for enhanced transit infrastructure as a component of long-term greenhouse gas reduction planning from the transportation sector?**

Answer: We recognize Sacramento as a leader in the area of incorporating smart growth into regional transportation planning. By linking land use and transportation planning in the vision for growth in the six Sacramento counties, the region can promote more compact development and transportation choices. This type of smart growth can encourage shorter vehicle trips, walking, biking, and public transit to access goods and services – which, in turn, can help reduce air pollution, GHG emissions, and energy consumption, and improve the quality of life for residents.

We believe that smart growth and mass transit can play an important role in helping Sacramento and other areas save fuel and reduce greenhouse gas emissions from the transportation sector. The recent *Moving Cooler* report, described above, provides new evidence of the technical potential for travel efficiency strategies like public transit, Smart Growth, congestion pricing, and carpools to significantly reduce emissions.

In 2007, EPA published a study titled, *Measuring the Air Quality and Transportation Impacts of Infill Development,*[2] which included three case studies that evaluated transit-oriented development and other smart growth development strategies. For

---

[1] National Academy of Sciences, Transportation Research Board. *Costs of Sprawl – 2000.* Transit National Academy Press, Report 74. Washington, D.C.: 2002.

[2] U.S. EPA. Measuring the Air Quality and Transportation Impacts of Infill Development. EPA 231-R-07-001. November 2007

example, this study showed that increased use of smart growth strategies in Denver could reduce congestion by six percent and emissions by four percent. In Charlotte, the study found that a new light rail project would reduce emissions on its own, but with significant transit-oriented development around its stations, ridership would increase by 6,000 trips per day and the emissions reduction benefits would be ten times larger.

The Honorable Joe Barton

1. **Would you agree that it is critical for Congress and the public to have full and complete information about EPA's assessment of the science associated with its endangerment finding?**

Providing full and complete information and ensuring transparency are essential to all of the Agency's work. EPA followed a rigorous, methodical, and transparent process to develop the Endangerment and Cause or Contribute Findings, and the accompanying Technical Support Document (TSD). EPA did not develop new science as part of this action but instead synthesized information from the existing peer-reviewed assessment literature. The Agency relied primarily on the major assessment reports which collectively reflect the current state of knowledge on climate change science, vulnerabilities and potential impacts. The public was kept informed and engaged from the beginning of our process. EPA held two public comment periods, and received more than 380,000 public comments on the proposed Findings. EPA responded to significant comments in the final Findings and the extensive, 11-volume Response to Comments document (RTC).[3] The scope and depth of the public record on the Endangerment Finding demonstrates both the volume of information that was considered in developing the Findings and the seriousness with which we approached the task of synthesizing the science.

a. **EPA did not evaluate and determine that the United Nations scientific panel that EPA was relying on – the Intergovernmental Panel on Climate Change or "IPCC" - followed its own quality guidelines when publishing the IPCC reports EPA relied upon. Why would you allow EPA to duck this important due diligence?**

EPA did, in fact, evaluate the review processes of the IPCC and other cited assessments (such as those of the US Global Change Research Program and the National Research Council). EPA's conclusions from this evaluation are described in the final Findings and in the RTC. In particular, Volume 1 of the RTC, General Approach to the Science and Other Technical Issues, includes extensive discussion of EPA's use of assessment literature including the IPCC

[3] The Findings and eleven-volume Response to Comments document may be accessed at http://www.epa.gov/climatechange/endangerment.html

reports. **Can you show this Committee that EPA evaluated that the IPCC actually implemented and followed its published policies regarding review and comments on its published reports?**

EPA reviewed and evaluated the written procedures of IPCC and the other assessment entities regarding their author selection, report preparation, expert review, public review, information quality, and approval processes to ensure the information adhered to a basic standard of quality, including objectivity, utility, and integrity. In addition to the IPCC assessment reports having gone through a rigorous review process within EPA, these documents were officially vetted by the U.S. Government through an open and transparent inter-agency review process led by the White House's Office of Science and Technology Policy. Given the involvement of EPA staff and other U.S. officials during the development of the IPCC reports, and the rigorous vetting of IPCC products across the U.S. Government and by other governments, EPA had no reason to believe that IPCC would not follow its stated procedures in developing its reports.

2. **What previous major regulations has EPA issued that have relied so heavily on non-EPA assessment reports as was the case for the endangerment finding?**

Climate change has been and continues to be studied by numerous Federal agencies which are part of a comprehensive and coordinated Federal research enterprise. EPA, as part of that federal research enterprise, would have no reason to disregard the collective body of knowledge built over the years by U.S. Government scientists. Also, as stated above, the scientific assessments of the IPCC, USGRCP, and the NRC undergo a rigorous and exacting standard of peer review by the expert community, as well as rigorous levels of U.S. government review and acceptance. Thus, it is EPA's view that the major assessment reports represent the best reference materials for determining the general state of knowledge on the scientific and technical issues before the Agency in making an endangerment decision. EPA presented its synthesis of the state of the science before the public for comment and evaluated and considered all comments received. EPA properly and carefully exercised its own judgment in all matters related to the Endangerment Finding, following a robust and transparent process.

3. **You have said that the Climategate and the widely publicized errors that have been identified in the Fourth Assessment Report of the IPCC have not changed any of the conclusions on which you based EPA's endangerment finding. What analyses has EPA done that caused you to reach this conclusion?**

Prior to finalizing the Endangerment Finding, EPA carefully reviewed many of the e-mails from the Climate Research Unit (CRU) at University of East Anglia, and recognized that many of the issues raised therein had also been raised through the public comments. Thus, we found that we had reviewed the underlying scientific issues that were presented to us at the time (see, for example, Volume 2 of the RTC document). Based on that initial review, we concluded that the fundamental

conclusions of the assessment literature remained sound as to the state of the science on greenhouse gases and climate change.

Following issuance of the Endangerment Finding, the Agency has received petitions for reconsideration of the Endangerment Findings. We are carefully and fully reviewing those petitions now. EPA has reviewed all of the e-mails in light of the petitioners' assertions with respect to the CRU e-mails and the few examples of errors in the IPCC Fourth Assessment Report. On the basis of our preliminary analysis of the scientific issues raised, and our thorough review of the contents of the e-mails, we have not yet found evidence that causes us to question our current understanding of the state of climate science and the causal linkage between anthropogenic GHG emissions and warming of the climate system.

a. **When did you conduct this analysis?**

See our response to Question 3 above.

b. **Would you supply it to the Committee?**

We will be happy to share with you our response to those petitions when completed.

4. **What role did the White House have in your decision to issue the endangerment and cause or contribute findings for greenhouse gases under Section 202(a) of the Clean Air Act announced December 7, 2009 ("endangerment finding")?**

The process of developing the Findings began in 2007 under the previous Administration as a result of the Supreme Court's decision in *Massachusetts v EPA*. The Administrator's determinations relied solely on a careful consideration of the full weight of the synthesis of scientific evidence and a thorough review of hundreds of thousands of public comments.

a. **Please identify any communications or interactions between the White House and your agency relating to issuance of the proposed endangerment finding in April of 2009, and/or relating to the final endangerment finding in December 2009.**

Communication between the White House and EPA relating to issuing a proposed or final endangerment finding took place in connection with the OMB-led interagency review process under Executive Order 12866.

b. **Were you, or any members of your staff, instructed about when to announce the finding by anyone working in the Executive Office of the President of the United States? If so, by whom?**

No. See our response to Question 4a.

5. **According to the timeline you laid out in your February 22, 2010 letter to Senator Rockefeller, "fewer than 400" stationary source emitters will face regulation under the Clean Air Act for their greenhouse gas (GHG) emissions in the first half of 2011. Pursuant to that same timeline:**

   a. **Approximately how many stationary sources would be regulated in the second half of 2011?**

For the second half of 2011, the sources subject to the permitting requirements of the CAA will be determined by the thresholds established in Step 2 of EPA's Prevention of Significant Deterioration and Title V Greenhouse Gas Tailoring Rule. EPA estimates that about 550 sources will be newly considered major because of their GHG emissions and will need to obtain title V permits for the first time due to their GHG emissions. We also estimate that during Step 2, there will be approximately 900 additional Prevention of Significant Deterioration (PSD) permitting actions each year related to new and modified GHG emission sources.

   b. **Approximately how many stationary sources would be regulated by the end of 2013?**

EPA commits to undertake another rulemaking by July 1, 2012, that would not be effective until July 1, 2013. This rulemaking will consider a Step 3 for phasing in GHG permitting. Step 3 would establish if any new sources of GHG emissions will be regulated. In any case, it will not require permitting for sources with GHG emissions below 50,000 tpy earlier than April 2016.

   c. **Approximately how many stationary sources would be regulated starting in 2016 and beyond, when you've explained that the smallest sources will be phased in?**

The tailoring rule provides a phase-in plan that will not require small sources to undergo permitting for GHG any earlier than 2016. That does not mean that EPA has decided that small sources *will* need to undergo permitting for GHG starting in 2016. In any event, we fully expect that Congress will address the question by statute before 2016.

   d. **How do these numbers compare to the current level of regulation under the Clean Air Act?**

Approximately 700 new sources and modifications are currently subject to the major New Source Review Program review each year. Approximately 15,000 existing sources currently have Title V operating permits.

e. **Can you provide a comprehensive and specific list of examples of the smallest sources that EPA will regulate after 2016?**

The study EPA has committed to complete by April 2015 will inform a separate rulemaking. Until that study and rulemaking are complete, EPA is unable to provide a comprehensive list of examples of sources that would be included in that rulemaking.

f. **In 2016 and beyond, what is the smallest threshold (in tons per year) for regulated entities that EPA intends to subject to Clean Air Act permitting for GHG emissions?**

See the response to question 5c above.

6. **On April 2, 2010, EPA published a decision in the Federal Register concluding the stationary sources will become subject to GHG regulation on Jan. 2, 2011. That date is only 8 months away.**

a. **As I understand it, you still have not finalized EPA's "Tailoring Rule" indicating which stationary sources will be subject to new permitting requirements. When do you plan to issue the final rule?**

EPA finalized the Tailoring Rule on May 13, 2010, and it was published in the Federal Register on June 3, 2010.

b. **As I understand it, you still have not released any guidance on what EPA will consider to be Best Available Control Technology (BACT) for those stationary sources that will be subject to new permitting requirements. When do you plan to issue that guidance?**

The Clean Air Act Advisory Committee (CAAAC) has established a Climate Change Work Group which has initially focused its attention on the procedure for evaluating BACT for GHG emissions. In February 2010, the work group completed the first phase of its effort and sent EPA a list of recommendations that highlighted areas of the BACT determination process that are in need of technical and policy guidance. A copy of their report is available from the public docket for this rulemaking and at http://www.epa.gov/air/caaac/climate/2010_02_InterimPhaseIReport.pdf.

In response, we are working to develop technical information, guidance, and training to assist states in permitting large stationary sources of GHGs, including identifying GHG control measures for different industries. EPA is currently

working with states on technical information and data needs related to BACT determinations for GHGs. Also, EPA is actively developing BACT policy guidance for GHGs that will culminate in training courses for state, local, and tribal permitting authorities. The results of all of these efforts will roll out over the remainder of 2010 but prior to any source being subject to GHG permitting requirements.

c. **If we are only 8 months away, how can all of the industries and sources that are going to be subject to the new permitting rules know what they have to accomplish in that span of time? You are not giving much lead time to businesses that are going to fall under the rule are you?**

The final tailoring rule provides a phased-in approach to regulation of GHGs under the CAA. Under Step 1 of the rule, which starts on January 2, 2011, only those sources already subject to PSD or Title V due to their non-GHG emissions will be subject to GHG-related requirements. As such, both the sources that will become subject as well as the permitting authorities that will be in charge of issuing the permits during this first step will have considerable experience with the requirements of the permitting programs. In addition, we have made commitments to provide sources and permitting authorities with technical guidance in order to help ease the transition into these new GHG-related requirements. This technical guidance will be available before the new requirements take effect.

d. **The auto industry gets 18 months lead time for the new standards you are imposing on them – why not give the same amount of time to stationary greenhouse gas emitters, who have never been regulated for such emissions before?**

The timeframe in which stationary sources of GHG emissions will be required to comply with the GHG permitting requirements is dictated by the Clean Air Act. EPA has established its interpretation of when these requirements are triggered as a result of GHG emissions being "subject to regulation" under the CAA in the final PSD Interpretive Memo. 75 Fed. Reg. 17004 (Apr. 2, 2010). In the final action on reconsideration of the Interpretive Memo, EPA explained its interpretation that the phrase "subject to regulation" in the CAA means that the BACT requirement applies when controls on a pollutant first apply to a regulated activity. In this case, the first time controls on GHG emissions will become applicable, thus triggering the permitting requirements under the CAA, is the date when automakers may begin to introduce model year 2012 vehicles into commerce, which is January 2, 2011.

7. **In your testimony, you say that if the endangerment finding was nullified, that would "forfeit one quarter of the combined fuel savings and one third of its**

greenhouse gas emission cuts" of the joint National Highway Traffic Safety Administration (NHTSA)/EPA national fuel efficiency standards (a/k/a "Light-Duty Vehicle" or the "tailpipe rule").

a. Please provide the basis for this calculation and explain how it was performed.

The joint final rule for the 2012-2016 light-duty vehicle greenhouse gas and CAFE standards was published in the Federal Register on May 7, 2010. In Table I.C.1-3 on page 25344, NHTSA estimates that the new CAFE standards will reduce CO2 by 636 million metric tons. In Table I.C.2-2 on page 25347, EPA estimates that the new EPA standards will reduce greenhouse gas emissions by 962 million metric tons.

8. **In a May 5, 2010 BNA press report, your Assistant Administrator for Air, Regina McCarthy, was quoted as saying the benefits of the tailpipe rule would be a 40% GHG reduction in greenhouse gases. In particular, she is quoted as saying that "about 40 percent of the greenhouse gas reductions will go away."**

a. Which figure is correct? Is it the 40% figure Assistant Administrator McCarthy is quoted as saying or the lower figure of "a third," or 33%, in your written testimony?

We were not able to find the BNA article cited. However, according to the final rule's regulatory impact analysis, elimination of the EPA standards would reduce the projected greenhouse gas emissions reductions from the joint EPA/NHTSA National Program by 326 million metric tons, which is a 33.8 percent reduction.

9. **With regard to the "historic agreement" between the EPA, Department of Transportation, State of California, the auto industry and other stakeholders announced by the President in May 2009 and relating to new national fuel efficiency standards:**

a. Wasn't this agreement premised on EPA finalizing an endangerment finding for greenhouse gases under Section 202(a) of the Clean Air Act? In particular, wasn't the crux of that agreement that EPA and NHTSA would be jointly issuing new fuel efficiency standards that would regulate greenhouse gas emissions from motor vehicles, which EPA only would have authority to do if you made a positive endangerment finding?

First, we should clarify that the "historic agreement" was between California and the auto companies. On May 19, 2009 President Obama announced a new national policy aimed at both increasing fuel economy and reducing greenhouse gas pollution for all new cars and trucks sold in the United States. On May 22,

2009, a "Notice of Upcoming Joint Rulemaking to Establish Vehicle GHG emissions and CAFE Standards" was published in the federal register. As noted in this Notice, if regulations were ultimately adopted these standards would represent a harmonized and consistent national policy pursuant to the separate statutory frameworks under which EPA and DOT operate. This Notice also stated that the GHG standards expected to be issued under section 202(a) of the Clean Air Act would become final only if EPA made a final positive endangerment finding. EPA's intent to follow normal rulemaking procedures is set forth in the Notice. The various stakeholders, including the automakers and California, expressed their support for the national policy and reserved their rights to participate in the full notice and comment rulemaking.

b. If the agreement was premised on the endangerment finding, wasn't it premature to enter into the agreement given there was no final endangerment finding?

President Obama's announcement on May 19, 2009 which united federal and state governments, the auto industry, labor unions and the environmental community was aimed at achieving a national policy to harmonize greenhouse gas and fuel economy standards. The automakers and California submitted letters to reflect their commitments as part of this process. EPA and NHTSA did not agree to take any action; instead the federal regulators issued the "Notice of Upcoming Joint Rulemaking to Establish Vehicle GHG emissions and CAFE Standards" published on May 22, 2009. The announcement of the new national policy was not premature and was aimed at commencing a regulatory process aimed at reducing greenhouse gases for new cars and trucks. As the May 22, 2009 Notice sets out, the regulatory process includes consideration of whether emissions of greenhouse gases from new motor vehicles and motor vehicle engines cause or contribute to air pollution that may reasonably be anticipated to endanger public health and welfare.

c. If the agreement wasn't premised on the endangerment finding, why have you said in your letter to Senator Rockefeller that a resolution disapproving the endangerment finding would "undo" the "historic agreement."

The new national policy announced by President Obama on May 19, 2009 culminated in a final rule to address greenhouse gases and fuel economy from new motor vehicles. As part of the necessary regulatory process, before the issuance of the final rule EPA separately conducted a public process to make a final finding regarding endangerment. A resolution aimed at disapproving the endangerment finding would both curtail the final rule addressing greenhouse gases from new motor vehicles and undo the unity reached among the affected stakeholders and announced by President Obama on May 19, 2009.

d. As a practical matter, once President Obama announced the agreement with the auto industry and California in May 2009, wasn't he in effect committing you to making a positive endangerment finding?

The Administrator of the Environmental Protection Agency is responsible for making any endangerment findings under section 202(a) of the Clean Air Act. The Administrator made the positive endangerment finding regarding greenhouse gases and new motor vehicles and new motor vehicle engines in a full public process that culminated in the finding published on December 15, 2009, 74 Fed. Reg. 66496.

e. If you say he was not committing you to make the finding, how realistic was it that you had any other option?
f. In making a final decision on endangerment, were you concerned that if you did not make a positive endangerment finding that it would undo the "historic agreement"? Didn't it color your views on endangerment?

The Administrator's options and evaluation was based upon the terms of the Clean Air Act and included a complete review of all pertinent legal, scientific and technical data before the Agency.

10. Under the historic agreement between the EPA, Department of Transportation, the State of California, the auto industry and other stakeholders announced by President Obama in May 2009, how long did California agree to hold off on enforcing its own standards? Isn't California's agreement not to enforce its own standards only a short term commitment for the 2012-2016 model years?

California, through its regulatory process, will allow manufacturers to demonstrate compliance with its 2012-2016 standards by meeting the EPA GHG standards during that time period. EPA plans to work with California and other stakeholders to pursue a continued National Program after 2016.

a. After 5 years, isn't California going to be able to threaten again to enforce its own motor vehicle emissions standards?

California has revised its program such that for MYs 2012-2016, a manufacturer may elect to demonstrate compliance with CARB's standards by demonstrating compliance with the EPA's greenhouse gas standards. EPA plans to work with California and other stakeholders to pursue a continued National Program after 2016.

b. Hasn't the Administration, by granting the waiver, in effect set up a situation in which California can set the fuel economy standards for the entire nation?

California has set greenhouse gas emission standards for itself and EPA has issued it a Clean Air Act waiver. Fourteen other states and DC adopted CA standards. California has revised its program such that manufacturers may demonstrate compliance with its 2012-2016 MY standards by meeting the EPA greenhouse gas standards. Thus, the greenhouse gas standards issued by EPA are the greenhouse gas standards for the nation. The President's announcement on May 21, 2010, is intended, in part, to continue where the current National Program leaves off – which is to work with all affected stakeholders to extend the National Program beyond 2016 in order to set standards for the nation.

c. Does the Administration believe that it is desirable for California to effectively be setting the fuel economy standards for the nation?

We do not believe that California is effectively setting the fuel economy standards for the nation.

11. Does the Administration continue to agree with the position taken by the United States in the <u>Green Mountain Chrysler-Plymouth-Dodge-Jeep et al. v. Crombie</u> case in the Second Circuit, reflected in a brief dated April 16, 2008, that the California motor vehicle GHG regulations are preempted by federal law? If not, has the Solicitor General approved any change of position?

On January 26, 2009, President Obama issued a Memorandum to the Secretary of Transportation and the Administrator of the National Highway Traffic Safety Administration (NHTSA). Included in the Memorandum was the request that in adopting final rules regarding fuel economy for 2011 and later motor vehicles, consideration be given to whether any provisions regarding preemption are "consistent with EISA, the Supreme Court's decision in Massachusetts v. EPA and other relevant provisions of law and the policies underlying them."

In NHTSA's Final Rule for 2011 model year vehicles signed on March 23, 2009, NHTSA decided to not include any preemption provisions in the regulatory text and said that it would be re-examining the issue in the context of the rulemaking for 2012 and later model years.

In the Light-Duty Vehicle Greenhouse Gas Emissions Standards and Corporate Average Fuel Economy Standards, published on May 7, 2010, it was noted that "With respect to the President's request that NHTSA consider the issue of preemption, NHTSA is deferring further consideration of the preemption issue. The agency believes that it is unnecessary to address the issue further at this time because of the consistent and coordinated Federal standards that apply nationally under the National Program. As discussed in this Final Rule, the California Air Resources Board (CARB) has committed to (and in fact has completed its rulemaking) allow manufacturers to demonstrate compliance with the National

Program in order to meet CARB's applicable requirements during the 2012-2016 model years."

12. What is the future for coal-fired power plants in this country?

I believe that if Congress acts quickly to pass comprehensive energy and climate legislation with a cap on carbon pollution, that will provide the largest incentive for CCS because it will create stable, long-term market-based incentives to channel private investment into low-carbon technologies. Coal will then continue to play a role in US electricity generation for years to come.

a. Is the Administration trying to phase out and shut down the coal industry?

No, the Administration supports a portfolio of low-carbon energy technologies, including CCS, to reduce greenhouse gas emissions and provide energy security..

b. How does this comport with energy security when coal is our most abundant resource?

Please see the response to Question 12, above.

13. You testified that you have been asked to co-chair a task force on carbon capture and sequestration (CCS) to get 5 to 10 projects up and running in the next few years so that we can make CCS technologies commercially available.

a. Can you explain in greater detail the nature of the task force, what the task force is currently doing, and what it expects to accomplish over the next few years?

To develop a comprehensive and coordinated Federal strategy to speed the commercial development and deployment of clean coal technologies, the President established an Interagency Task Force on Carbon Capture and Storage on February 3, 2010. The Task Force, co-chaired by the Department of Energy and EPA, is charged with developing a proposed plan to overcome the barriers to the widespread, cost-effective deployment of CCS within 10 years, with a goal of bringing 5 to 10 commercial demonstration projects online by 2016.

The Task Force is exploring incentives for commercial CCS adoption and addressing financial, economic, technological, legal, institutional, social, or other barriers to deployment. It is also considering how best to coordinate existing administrative authorities and programs, including those involving international collaboration, as well as identifying areas where additional administrative authority may be necessary. The Task Force's plan is due to the President in August 2010.

14. If CCS technologies cannot be commercially developed or deployed, is it the Administration's position that new coal-fired power plants should not be built in the U.S.?

The Administration is committed to cost-effective greenhouse gas emissions reductions. Ultimately, comprehensive energy and climate legislation that puts a cap on carbon pollution will provide the largest incentive for CCS because it will create stable, long-term market-based incentives to channel private investment in low-carbon technologies.

15. Do you expect any new coal-fired power plants to be permitted during your tenure as EPA Administrator?

I hope we will see the permitting and construction of new facilities that generate electricity using American coal in ways that are environmentally responsible.

<u>The Honorable John Shimkus</u>

1. Could you provide any data EPA has collected from retail fuel marketers as to what percentage of their customers would need to be able to utilize E15 to make it economical to invest in additional infrastructure to sell E15 to only a portion of the U.S. automotive fleet?

EPA has not collected any data regarding what percentage of gasoline customers would need to demand E15 in order for retailers to want to invest in it. The decision to bring E15 to market will likely depend on market conditions (price of ethanol vs. gasoline), existing retail configurations, and the cost to upgrade equipment. Testing is still underway to determine what changes might be needed to replace/retrofit gasoline storage and dispensing equipment (designed to handle up to 10% ethanol) to ensure its compatibility with E15.

2. EPA has stated that in order to approve E11 or E12 as an interim step towards E15, it would have to take such action outside of the waiver process. Could you provide the specific legal or regulatory impediments you believe prevent you from making such a determination?

Clean Air Act § 211(f)(1) prohibits the introduction into commerce of a fuel or fuel additive unless it is "substantially similar" to the fuels used in certification of new motor vehicles. In 1981, EPA issued a rule interpreting what fuels are substantially similar for gasoline fuels. The rule was revised in 1991, with a very slight revision in 2008. E11 or E12 is not currently considered "substantially similar" to our certification fuels, and deciding whether to include E11 or E12 in the definition of "substantially similar" would, in any event, raise the same type of concerns and require the same type of data that is required for the current E15 waiver application

under § 211(f)(4). Alternatively, a separate waiver application process could be conducted for E11 or E12, but again, it would require the same type of data and analysis that is required for the E15 waiver application.

3. **As I stated at the hearing, we are importing less ethanol, exporting more (to places like Korea and even the Middle East), while ethanol inventories are growing and prices are falling. It seems that we are fast approaching or have already hit the blend wall for ethanol in the United States. Ethanol companies in my state are also telling me their customers are saying an enhanced blend decision that does not apply to all cars <u>will not be adopted</u> in the marketplace. Do you believe that a partial E15 waiver approval for only a portion of the US automotive fleet would allow the goals of RFS2 to be achieved?**

   The decision on the E15 waiver request must be based on the criteria under the CAA Section 211(f)(4), requiring me to "determine that the applicant has established that such a fuel or fuel additive . . . and the emission products . . . will not cause or contribute to a failure of any emission control device or system . . . to achieve compliance by the vehicle or engine with the emission standards . . . ."

   We expect the goals of the RFS2 program to be met with a wide range of renewable fuels, ethanol being one of the more prominent ones. In the final rule, we estimated that ethanol use could be anywhere from 17.5 to 33.2 billion gallons by 2022. If granted a partial waiver for E15, this could allow for ethanol use to expand in the marketplace, along with FFV and E85 expansion. The actual impact of E15 will depend on how the market actually responds in the event of a partial waiver. As discussed above in #1, this will depend on market conditions, existing retail configurations, and the cost to upgrade equipment.

4. **As part of its waiver petition, Growth Energy provided a significant amount of data and studies on the effects of enhanced ethanol blends. This was supplemented by additional studies showing positive results through the comment process. Yet, EPA has stated that in order to approve E11 or E12 on an interim basis for all cars, "we are not aware of the availability of significant data to support such a revision." Could you provide details on what data is insufficient, or what additional data is required?**

   As is mentioned in the question above on E11 and E12, the regulatory procedures required for the approval of E11 or E12 are essentially the same as those available for approval of E15. We are not aware of specific data of the type that would be needed for E11 or E12. Data on E15 would likely be applicable to E11 and E12 since the critical data still needed involves durability issues primarily due to increases in oxygen content in the fuel. If the vehicle does not adequately adjust for the increased oxygen, the fuel may burn hotter and raise durability concerns. We continue to evaluate the critical question of component durability using E15 when used over many thousands of miles and the ongoing study by the Department of Energy will provide critical data on this issue.

The Honorable Parker Griffith

1. **Do you believe that recycling coal combustion residuals (CCR) is a beneficial use of this byproduct?**

    a. **Many states are already concerned that a hazardous designation would prevent most CCR from being recycled because end use is not always determined at the time of creation. What steps will you take to be sure that recycling rates do not decrease should these designations move forward?**

EPA recognizes the concerns that our state partners, through ASTSMWO, have brought to our attention about the potential effect that regulating CCRs as a hazardous waste may have. However, EPA believes that existing landfills can meet the various requirements, including the installation of ground water monitoring. In addition, under the Resource Conservation and Recovery Act (RCRA), facilities that begin to receive newly listed wastes are eligible for "interim status" which means that by fulfilling certain permit notification requirements, they can continue to operate until they are fully permitted under RCRA subtitle C regulations. Thus, most landfills should be able to operate under subtitle C regulations. Finally, because regulation under subtitle C would make disposal more costly, and because the beneficial use of CCRs would retain the statutory Bevill exemption, it is likely that the beneficial use of CCRs will increase, thus reducing the disposal of CCRs. For more information, please see EPA's proposed rule on coal combustion residuals, which was published in the Federal Register on June 21, 2010.

2. **It was recently announced that the TVA will be establishing a centralized training facility for its nuclear power division in the heart of my district. In what ways do you think your agency and this Administration can contribute to ensuring that additional jobs are created, clean nuclear energy is encouraged and regulations are not overly burdensome, especially on the end use customers?**

The best way to ensure nuclear power is a part of the future of this nation's energy supply is for Congress to pass comprehensive energy and climate legislation that creates a system of incentives to make clean energy profitable. Currently, producing carbon pollution carries no cost, and therefore traditional plants that use fossil fuels will continue to be more cost-effective than plants that use nuclear fuel.

Even without new legislation, the Administration is taking steps to encourage nuclear energy. One example is earlier this year the President announced that the Department of Energy has offered conditional commitments for a total of over eight billion dollars in loan guarantees for the deployment of two new nuclear reactors. More information can be found at: www.lgprogram.energy.gov.

3. **There has been quite a bit of discussion recently regarding coal mining permits that the EPA seems to be delaying. In my state we are waiting on 51 permits which would create thousands of good paying Alabama jobs. What steps are you taking to streamline these long permitting times on small coal businesses?**

EPA's responsibility under the Clean Water Act focuses on ensuring that proposed projects comply with requirements of the law in order to protect water quality, the environment, and public health. EPA fulfills this responsibility through its review of permit applications provided by the U.S. Army Corps of Engineers through public notice in accordance with Section 404 of the Clean Water Act, and through its review of State proposed National Pollutant Discharge Elimination System (NPDES) permits under Section 402 of the Act. EPA works hard with our Federal and State partners and permit applicants to conduct permit reviews in a manner that is consistent with the law and provides the public with timely, predictable, and consistent decision making.

EPA's environmental concerns regarding surface coal mining are focused on reducing the harmful environmental consequences of projects in steep-slope areas of central Appalachia. Special procedures have been prepared by the agencies for the review of coal mining projects in the steep slopes of Central Appalachia. EPA is reviewing projects outside Central Appalachia, including Alabama, under standard permit review procedures and timeframes established in the Corps of Engineers regulations.

Where EPA identifies environmental concerns with proposed projects, EPA looks forward to working with the Corps and permit applicants to resolve those concerns in order to facilitate timely permitting of proposed projects. EPA invites permit applicants, including small businesses, to meet with EPA and the Corps before and during the formal permitting process in order to encourage productive dialogue, ensure that the agencies have the necessary information to conduct their reviews, promote prompt decision-making that is consistent with the Clean Water Act, and that promotes the economic, energy, and jobs related benefits associated with coal mining in Alabama and elsewhere.

a. **Specifically, can you give me an example of a decision you have made to streamline this process?**

As noted above, EPA has placed a greater focus recently on conducting pre-application meetings in order to discuss project details and identify potential environmental concerns for timely resolution. These meetings, which have taken place in Alabama and elsewhere in Appalachia, have helped facilitate effective communication among EPA, the Corps, State agencies, and permit applicants. EPA looks forward to continuing to hold these meetings in Alabama to help explain the permitting process and streamline dialogue between applicants and agencies. In addition, EPA has been meeting with relevant state and federal agencies to ensure that our procedures are well coordinated. Where possible, we are eliminating redundancy, efficiently sharing critical information, and conducting concurrent reviews to reduce the time for decisions.

AL-10-000-4465

EPA RESPONSES TO CONGRESSIONAL QUESTIONS FOR THE RECORD
March 4, 2010 PBT Hearing
House Energy and Commerce
Sub-Committee on Commerce, Trade, and Consumer Protection

September 15, 2010

The Honorable Bobby L. Rush

1. Biomonitoring can be used to determine the amount that people are actually exposed to certain chemicals. At our last hearing on TSCA in November, we heard from the Centers for Disease Control and Prevention about their biomonitoring program. Their fourth biomonitoring report found "widespread" exposure to emerging chemicals of concern. These include PBTs such as perfluorinated compounds (PFOA) and flame retardants (PBDEs).

a. Do you believe that if a chemical is found to contaminate the human body, there is exposure?

Yes, although presence in the body alone does not tell us what the resulting risk of the chemical may be to human health. The presence of a chemical in the human body is a key factor in Agency decision making regarding both toxicity testing and risk mitigation of chemicals. A number of the Agency's risk reduction actions under TSCA have been focused on chemicals found in the human body in biomonitoring studies, for example, penta- and octa-bromodiphenyl ether as well as a broad class of PFOS and PFAC chemicals. Biomonitoring information is also a selection criterion for the new EPA chemical action plans recently released, and action plans where this was a factor include polybrominated diphenyl ethers, phthalates, long-chain perfluorinated compounds and short chain chlorinated paraffins.

b. Do you believe once we know that a chemical is a PBT and there is exposure, this is sufficient information for EPA to take immediate action to reduce or eliminate the use of PBTs?

Exposure to a PBT is potential cause for concern, although presence in the body alone does not tell us what the resulting risk of the chemical may be to human health, Having said that, as a result of the legal hurdles and procedural requirements TSCA places on EPA prior to collecting data, there are large, troubling gaps in the available data and state of knowledge on many widely used chemicals in commerce. Although there is a review process for new chemicals being introduced into commerce, chemical producers are not required to provide, without further action from EPA, the data necessary to fully assess a chemical's risks.

In the cases where EPA has adequate data on a chemical, and wants to protect the public against well-known risks to human health and the environment, there are legal hurdles that prevent quick and effective regulatory action. Meanwhile, the public may be exposed to chemicals for which we have little understanding of the consequences.

When Administrator Jackson announced that EPA would be taking action on a number of chemicals, she noted criteria EPA would use to identify these chemicals.[1] PBT characteristics were among those criteria. In fact, three of the four chemical groups selected for the initial group of action plans were PBTs.

c. If we know that something is a PBT but we do not know if there is exposure, does EPA think it would be a priority to find out if there is exposure? Can EPA act on PBTs without exposure information?

Persistence and bioaccumulation, as well as toxicity, are certainly very important factors in evaluating a chemical's risks. Filling in gaps in exposure information for PBTs would be a high priority. Currently, under TSCA, exposure information is necessary to determine whether an existing chemical presents or may present an unreasonable risk. The response to the following question outlines EPA's Policy Statement for the consideration of PBTs during the review of new chemicals under TSCA.

d. Do you believe newly developed chemicals that meet the criteria for being a PBT should be restricted from entering commerce?

As outlined in the Administration's principles on TSCA reform, we believe that chemicals should be reviewed against safety standards that reflect risk-based criteria protective of human health and the environment, and that EPA should have clear authority to take risk management actions when chemicals do not meet the safety standard.

That a chemical is persistent and bioaccumulative, as well as toxic, is certainly a very important factor in evaluating a chemical's risks and prioritizing chemicals for action. PBT characteristics are among the factors the Agency has considered in identifying chemical substances for action in both its enhanced existing chemicals management program and its new chemicals program.

Beginning in 1988, EPA first used its accumulated experience to group certain chemical substances with similar physicochemical, structural, and toxicological properties into categories to enable both Pre-Manufacture Notice (PMN) submitters and EPA reviewers to benefit from

---

[1] http://www.epa.gov/oppt/existingchemicals/pubs/Existing.Chem.Fact.sheet.pdf

the accumulated data and decisional precedents for the assessment and regulation of new chemical substances. In 1999 (Federal Register, 11/4/1999, page 60194-60204), EPA issued a final policy statement regarding the category of persistent, bioaccumulative, and toxic (PBT) new chemical substances. Through the Policy Statement, EPA adopted specific identification criteria and the associated process that EPA would use in evaluating new chemical substances suspected as being persistent bioaccumulators. The Policy Statement made clear to submitters of new chemical notifications under TSCA section 5 that substances meeting these criteria may need to undergo testing on "P" and "B" endpoints which, if confirmed, would be followed by appropriate toxicity testing to identify "PBT chemical substances." In addition, the Policy Statement made clear that control action under TSCA section 5(e) may be needed in varying degrees, based upon the level of risk concern.

e. When there is known exposure to a persistent and bioaccumulative chemical but toxicity is not known, do you believe that this chemical should be limited in commerce or prioritized for toxicity testing?

There are large, troubling gaps in the available data and state of knowledge on many widely used chemicals in commerce. Although there is a review process for new chemicals being introduced into commerce, chemical producers are not required to provide, without further action from EPA, the data necessary to fully assess a chemical's risks. If toxicity is unknown for chemicals known to be persistent and bioaccumulative, this would be an important data gap which should be filled.

As outlined in the Administration's principles on TSCA reform, we believe that chemicals should be reviewed against safety standards that reflect risk-based criteria protective of human health and the environment, and that EPA should have clear authority to take risk management actions when chemicals do not meet the safety standard.

2. The National Research Council in a 2005 report has found biomonitoring to be a "tool with great potential," and the GAO recently testified that EPA has not sufficiently used available biomonitoring data in its chemical risk assessments.

a. Does EPA consider the presence of persistent and bioaccumulative chemicals in the human body to be a trigger for toxicity testing or risk mitigation?

That a chemical is persistent and bioaccumulative, as well as toxic, is certainly a very important factor in evaluating a chemical's risks. When Administrator Jackson announced that EPA would

be taking action on a number of chemicals, she noted criteria EPA would use to identify these chemicals.[2] PBT characteristics were among those criteria.

EPA has used persistence, bioaccumulation, and toxicity (PBT) characteristics in determining toxicity testing needs and risk mitigation activities in the New Chemical Program for over 20 years. Beginning in 1988, EPA first used its accumulated experience to group certain chemical substances with similar physicochemical, structural, and toxicological properties into categories to enable both PMN submitters and EPA reviewers to benefit from the accumulated data and decisional precedents for the assessment and regulation of new chemical substances. In 1999 (Federal Register, 11/4/1999, page 60194-60204), EPA issued a final policy statement regarding the category of persistent, bioaccumulative, and toxic (PBT) new chemical substances. Through the Policy Statement, EPA adopted specific identification criteria and the associated process that EPA would use in evaluating new chemical substances suspected as being persistent bioaccumulators. The Policy Statement made clear to submitters of new chemical notifications under TSCA section 5 that substances meeting these criteria may need to undergo testing on "P" and "B" endpoints which, if confirmed, would be followed by appropriate toxicity testing to identify "PBT chemical substances." In addition, the Policy Statement made clear that control action under TSCA section 5(e) may be needed in varying degrees, based upon the level of risk concern.

More recently, EPA has had the opportunity to incorporate biomonitoring information in conjunction with PBT information in the Existing Chemical Program. In 2005, EPA's Science Advisory Board reviewed a draft risk assessment of perfluorooctanoic acid (PFOA). This assessment was one of the first examples of the use of human biomonitoring and pharmacokinetic modeling in assessing potential human risks, and in fact was highlighted in NRC 2006 report on biomonitoring. The biomonitoring information, in conjunction with the PBT characteristics of PFOA, formed the rationale for the risk mitigation activities and the phase-out of PFOA (as well as the earlier phase out of PFOS). In addition, this information has formed the basis for the toxicity testing requirements, and risk mitigation activities, of all new perfluoro compounds submitted through the PMN program. In September 2009, EPA announced efforts to enhance the Agency's current chemical management progam, which includes the development and release of chemical specific action plans. To date, the Agency has released five action plans, including several chemicals which were selected, in part, on biomonitoring information, and/or known PBT properties, including perfluoroalkyl acids, PBDEs, BPA, and phthalates.

---

[2] http://www.epa.gov/oppt/existingchemicals/pubs/Existing.Chem.Fact.sheet.pdf

b. Does EPA have a plan for utilizing biomonitoring data for identification of exposure to persistent and bioaccumulative chemicals?

Characteristics of persistence and bioaccumulation and biomonitoring data are among the factors the Agency has considered in identifying chemical substances for action in its enhanced existing chemicals management program and will continue to use these factors. In addition, the Great Lakes Restoration Initiative (GLRI) is undertaking a biomonitoring study of intensive Great Lakes fish consumers with a focus on chemicals of emerging concern such as brominated flame retardants and perfluorinated compounds. The GLRI is a five year multi-agency effort to restore and maintain the chemical, physical, and biological integrity of the Great Lakes. Under the GLRI, significant new investments are being made to address PBTs, including pollution prevention efforts, such as implementation of the Great Lakes Regional Collaboration Mercury in Products and Waste Phase-down Strategy, as well as in green chemistry and product stewardship activities in the Great Lakes basin. Efforts include further monitoring and surveillance for new and emerging chemicals in the Great Lakes through expanded fish and air deposition monitoring and a new sediment core program to help identify new chemical toxicants which may pose threats to human health and the environment.[3]

3. Mr. Jones, we heard you describe what the EPA is currently doing on PBTs. However, EPA drafted a document in 1998 entitled "Multimedia Strategy for Priority Persistent, Bioaccumulative, and Toxic (PBT) Chemicals." In the years since, it does not appear that that draft document was ever finalized.

a. Is there a plan under this Administration to finalize this strategy document? Similarly, EPA's website says that the PBT program is no longer active. Can you elaborate on this? Do the new chemical action plans you explained in your testimony replace this older PBT program?

EPA does not intend to finalize this document. EPA's current enhanced existing chemicals program, which includes the development and implementation of action plans for chemicals that EPA believes may pose environmental or public health concerns, has superseded this program. Persistence and bioaccumulation, as well as toxicity, are very important factors in evaluating a chemical's risks.

4. EPA's recently announced action plans on 4 chemicals included 3 PBTs.

---

[3] http://greatlakesrestoration.us/

a. Do you have any indication how many more chemical action plans in the pipeline will be for PBTs? You have action plans for non-PBTs. With limited resources, is there a preference given to PBTs for an action plan?

At this point, we cannot say how many future action plans may address PBTs. Persistence and bioaccumulation, as well as toxicity, are very important factors in evaluating a chemical's risks.

b. How many actions plans should we expect in total?

As of August 20, 2010, EPA has made public eight chemical specific action plans. EPA will continue to address chemicals that EPA believes may pose environmental or public health concerns.

c. How many PBTs are currently being used in commerce? How many PBTs are no longer used in commerce, yet are still contaminating the environment and our bodies?

We do not know exactly how many exist and their status in commerce. There are more than 84,000 chemicals on the TSCA Inventory, and the Inventory does not include pesticides and other chemicals subject to other statutes. EPA does, however, have information on some new and existing TSCA chemicals. Starting in Fiscal Year 2001, about 6% of all New Chemical notices have been determined to be PBTs. About 2% of more than 2200 existing chemicals in the High Production Volume Challenge program were identified as PBTs using EPA's PBT Profiler screening tool and the new chemicals program protocols.

d. Does EPA know how many new PBTs have entered into commerce since TSCA was enacted in 1976?

The Agency did not begin tracking PBTs until Fiscal Year 2001. Starting in 2001, about 6% of all New Chemical notices have been determined to be PBTs, for a total of 680 through 2008. There does not seem to be a discernible trend that we can identify, but the range is from a low of 56 in 2008 to a high of 109 in 2002.

5. Mr. Sturdevant emphasized the need to transition towards safer alternatives where PBTs are currently used in commerce. To determine safety, we need information on a chemical's toxicity. Currently, EPA is limited in its ability to get this information.

a. Is there a process in place at EPA to require or encourage switching to safer alternatives, as suggested by Mr. Sturdevant?

The Design for the Environment (DfE) Program in EPA pursues two different approaches to promote the transition from chemicals that may pose environmental or public health concerns, including PBTs, to scientifically proven safer alternatives. Under the first approach, the

Program conducts the Safer Product Labeling program to encourage formulators of cleaning and other products to reformulate away from chemicals that may pose environmental or public health concerns towards safer substitutes. The Program uses the Agency's toxicological, chemistry and other scientific expertise to screen chemicals and recommend safer replacements. Products which meet the criteria for every chemical ingredient in the product are allowed to affix a DfE logo to their product asserting safer chemistry.[4]

When safer alternative chemicals are not readily available or not widely used in an industry, DfE uses a different approach, named Alternatives Assessment, to identify and evaluate safer chemicals. These Alternatives Assessments are a collaborative effort with leaders in industry, NGOs, agency scientists and, as appropriate, academic or other stakeholders. Agency science is used to understand the potential for environmental and human health impacts of the alternatives and enable a move to safer chemicals.

The Honorable Ed Whitfield

1. During questioning, I asked what the process was for adding chemicals to the TRI list. Please state for the record what that process is.

The toxic chemicals subject to the TRI requirements are those chemicals on the list in Committee Print Number 99–169 of the Senate Committee on Environment and Public Works, titled "Toxic Chemicals Subject to Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986" and any revisions to the list as may be made pursuant to subsection (d) or (e) of Section 313. The current list has over 600 individually listed chemicals and about 30 chemicals categories.

EPCRA 313(d) provides the authority to add a chemical to the TRI list if the Administrator determines, in his or her judgment and based on available and generally accepted scientific principles or laboratory tests, or appropriately designed and conducted epidemiological or other population studies, that there is sufficient evidence to establish any one of the following:

- The chemical is known to cause or can reasonably be anticipated to cause significant adverse acute human health effects at concentration levels that are reasonably likely to exist beyond facility site boundaries as a result of continuous, or frequently recurring, releases.

[4] http://www.epa.gov/dfe/pubs/projects/gfcp/index.htm.

- The chemical is known to cause, or can reasonably be anticipated to cause in humans (1) cancer or teratogenic effects, or (2) serious or irreversible reproductive dysfunctions, neurological disorders, heritable genetic mutations, or other chronic health effects.

- The chemical is known to cause or can reasonably be anticipated to cause, because of its toxicity, its toxicity and persistence in the environment, or its toxicity and tendency to bioaccumulate in the environment, a significant adverse effect on the environment of sufficient seriousness, in the judgment of the Administrator, to warrant reporting under this section.

EPA must make such a determination by rule. Additions would be proposed through publication of a draft rule to provide notice and opportunity for comment on the addition of the chemical to the TRI list. A final rule would be subject to judicial review. A similar process would occur to delete a listed chemical if the Administrator determined there was not sufficient evidence to establish any of the criteria described above for the chemical.

Under EPCRA 313(e), any person may petition the Administrator to add or delete a chemical and the Administrator must take action within 180 days.

The TRI regulations were augmented with respect to persistent bioaccumulative toxic (PBT) chemicals on October 29, 1999, when EPA published a final rule adding some PBT chemicals to the list of toxic chemicals subject to section 313 of EPCRA and section 6607 of the PPA and to lower the reporting thresholds for certain PBT chemicals including mercury, dioxin, and PCBs.

2. How does a chemical, like Metiram, which the toxicity test showed was not causing a problem in animals, make the list?

Based on the 1994 rulemaking record, Metiram is an ethylene bisdithiocarbamate (EBDC) fungicide, and EPA found that sufficient evidence suggested that ethylene bisthiocarbamate fungicides and ethylenethiourea (a common contaminant, metabolite, and degradation product of these fungicides) caused cancer and adverse developmental effects in experimental animals.[5]

In a 2-year diet study, ethylenethiourea caused liver adenomas and carcinomas in mice, and thyroid follicular cell adenomas and carcinomas in mice and rats.[6] A NOAEL of less than or equal to 5 mg/kg has been reported for ethylenethiourea, based on a rat developmental

---

[5] 59 FR 1863, 1/12/1994

[6] Support Document for the Health and Ecological Toxicity Review of TRI Expansion Chemicals. U.S. Environmental Protection Agency, Washington, DC (1993), page 95.

toxicity study.[7] Ethylenethiourea caused delayed ossification or hardening of the parietal bone in pups. EPA believed then, as it does now, that there is sufficient evidence for listing metiram on the EPCRA section 313(c) list pursuant to EPCRA section 313(d)(2)(B) based on the carcinogenicity and developmental toxicity data for ethylenethiourea, a metabolite and degradation product of metiram.

3. Please state whether chemicals have been statutorily added to the TRI. Please state whether any of their toxicity profiles are similar to or more benign than that for Metiram.

All of the chemicals that were originally on the TRI list were statutorily added in Committee Print Number 99–169 of the Senate Committee on Environment and Public Works, titled "Toxic Chemicals Subject to Section 313 of the Emergency Planning and Community Right-To-Know Act of 1986."

No chemicals have been added statutorily since the adoption of the law.

With respect to your question regarding whether the toxicity profiles of any of the statutorily added chemicals are similar to or more benign than that for metiram, since there have not been any statutory additions, the Agency does not have anything upon which to base an answer to this question.

4. Please provide a full explanation of the steps EPA must take to ban a PBT. Please state whether there are legal authorities other than TSCA to address PBT chemical risks.

Section 6(a) of TSCA gives EPA the authority to protect against unreasonable risk of injury to health or the environment from chemical substances. If EPA finds that there is a reasonable basis to conclude that the chemical's manufacture, processing, distribution, use or disposal presents an unreasonable risk, EPA may by notice-and-comment rulemaking take action to:

- Prohibit or limit manufacture, processing, or distribution in commerce;
- Prohibit or limit the manufacture, processing, or distribution in commerce of the chemical substance above a specified concentration;
- Require adequate warnings and instructions with respect to use, distribution, or disposal;
- Require manufacturers or processors to make and retain records;
- Prohibit or regulate any manner of commercial use;
- Prohibit or regulate any manner of disposal; and/or

[7] Id.

- Require manufacturers or processors to give notice of the unreasonable risk of injury, and to recall products if required.

TSCA section 6(a) indicates that EPA should apply the least burdensome means of adequately protecting against the unreasonable risk. In developing a rule under 6(a), TSCA section 6(c) directs EPA to consider and publish a statement with respect to:

1. The effect of the chemical substance being regulated on health and the magnitude of exposure of humans to the substance.
2. The effects of such substance on the environment and the magnitude of exposure of the environment to the substance.
3. The benefits of such substance for various uses and the availability of substitutes for such uses.
4. The reasonably ascertainable economic consequences of the rule, after consideration of the effect on the national economy, small business, technological innovation, the environment, and public health.

Only five ban actions have been taken using this authority since TSCA was enacted, along with the predominantly invalidated Asbestos Ban and Phase-out Rule. The 5th Circuit Court of Appeals decision on the asbestos rule in 1991 had a chilling effect on EPA's use of the TSCA ban authority. To the extent EPA has authority to address chemicals in the various media it regulates, it also has the authority to address PBT chemicals. While the PBT nature of the chemicals may be relevant to a risk finding or Agency priority setting, most EPA authorities do not treat PBTs differently as a class. (Note, though, that PBT-listed chemicals are subject to lower thresholds to trigger Toxics Release Inventory reporting. See 40 C.F.R. § 372.28.) Thus EPA has the broad range of authorities in the environmental statutes available to address PBTs.

The Honorable Joe Barton

1. Please state whether the U.S. EPA was the source for recognition and inclusion of Article 3.3 in the Stockholm Convention concerning new chemicals with POPs characteristics. If not, please explain why this fact was stated in EPA's notice finalizing existing U.S. PBT policy.

As of the date of the issuance of the final PBT policy (November 4, 1999), the negotiation of the Stockholm Convention was ongoing and thus Article 3.3 did not yet exist. As stated in the Federal Register Notice announcing the category for PBT new chemical substances:

> "... development of the TSCA new PBT chemicals policy has occurred in coordination with U.S. national, U.S./Canada binational, and international efforts to identify and control the environmental release of persistent organic pollutants (POPs). The proposed TSCA PBT category has been provided to the Criteria Expert Group (CEG) established at

the first session of the Intergovernmental Negotiating Committee (INC) for an International Legally Binding Instrument for Implementing International Action on Certain Persistent Organic Pollutants, in accordance with the mandate given by the Governing Council of the United Nations Environment Programme (UNEP) in paragraph 9 of its decision 19/13 C (http://irptc.unep.ch/pops/gcpops<INF>-</INF>e.html). The CEG is an open-ended technical working group with a mandate to present to the INC proposals for science-based criteria and a procedure for identifying additional POPs as candidates for future international action. The CEG is to incorporate criteria pertaining to persistence, bioaccumulation, toxicity and exposure in different global regions and should take into account the potential for regional and global transport, including dispersion mechanisms for the atmosphere and the hydrosphere, migratory species, and the need to reflect possible influences of marine transport and tropical climates. At its first meeting, October 26-30, 1998 in Bangkok, the CEG recommended that the INC consider developing a provision encouraging countries and regions to include in their new chemicals schemes elements relating to development and introduction of new chemical POPs. The U.S. described its proposed TSCA new chemicals program policy for the category of PBT new chemicals, and the full text of the October 5, 1998 Federal Register notice was distributed to all delegations as a Conference Room Paper. The CEG's recommendation was accepted at the second meeting of the INC (January 25-29, 1999 in Nairobi) and the INC will consider it further in its deliberations." (64 FR 60194, November 4, 1999).

2. Please state whether EPA's policy for new PBT chemicals followed a foreign policy or was the first of its kind internationally.

EPA's policy for new PBT chemicals was the first of its kind internationally, although certain other governments (e.g, Japan) also recognized PBTs as chemicals of potential concern in their domestic regulatory regimes.

3. Has the existing PBT policy been effective -- in that companies have avoided the development and submission of new chemical PBTs except in cases where the exposures and releases were carefully controlled or avoided entirely?

Through the 1999 Policy Statement on New Chemicals Category for PBTs, EPA adopted specific identification criteria and the associated process that EPA would use in evaluating new chemical substances suspected as being persistent bioaccumulators. The Policy Statement made clear to submitters of new chemical notifications under TSCA section 5 that substances meeting these criteria may need to undergo testing on "P" and "B" endpoints which, if confirmed, would be followed by appropriate toxicity testing to identify "PBT chemical

substances." In addition, the Policy Statement made clear that control action under TSCA section 5(e) may be needed in varying degrees, based upon the level of risk concern.

Because EPA is not privy to company business decisions regarding which new chemical substances should be developed, it is not possible for EPA to comment on whether companies have avoided the development and submission of new chemical PBTs since the issuance of this policy statement. During the period from FY01 - FY08, EPA received approximately 290 Pre-Manufacture Notices (PMNs) or Significant New Use Notices (SNUNs) and 370 Low Volume Exemption notifications (LVEs) that were identified by the Agency as "potential" PBTs. There does not appear to be a strong trend over this time period. During its review of "potential" PBT notifications, EPA carefully assesses the chemical substance to ensure that exposures and releases are carefully controlled or avoided entirely. EPA will, if necessary, deny an LVE and/or require binding controls on releases and exposures. For PMNs, EPA will, if necessary, regulate the substance through TSCA section 5(e) Consent Orders/Significant New Use Rules (SNURs), non-5(e) SNURs, or will ban the manufacture of the substance pending the development of upfront testing needed by EPA to conduct a reasoned evaluation of the effects of the substance.

4. On Thursday, February 4, 2010, U.S. EPA deleted its web pages specifically designed to address PBT issues. Apparently, the Agency did this to archive materials that were as old as 2002. However, the "archive" contains materials newer than 2002. Please explain why those materials newer than the archive guidelines were archived and what criteria were used in determining which materials to archive.

We archived the site because the program had been superseded by the enhanced existing chemicals program. However, there are links to active efforts including the PBT Profiler, the Toxics Release Inventory program, and some activities ongoing in EPA's Region 5.

5. EPA's web page states "The PBT program is no longer active." Please explain this statement and whether it means EPA no longer supports its new chemicals PBT policy.

EPA continues to implement its new chemicals policy for PBTs. The PBT program referenced on the EPA website addressed existing chemicals and has been superseded by the enhanced existing chemicals program. This program was and is unrelated to EPA's New Chemicals policy for PBTs.

6. Other than taking down the PBT website, please describe what actions the Obama Administration has taken to demonstrate its support for the Sustainable Futures effort. Please describe what improvements, if any, have occurred on your watch.

The Sustainable Futures Program has been strengthened and enhanced during the Obama Administration. Under Sustainable Futures, EPA offers industry and other stakeholders' powerful computerized methods for the evaluation of chemicals. EPA delivers these tools together with training, technical assistance and regulatory incentives for qualifying New Chemicals developed using the Sustainable Futures tools. In December 2009, EPA launched the Analog Identification Methodology (AIM), a web-based tool to facilitate hazard assessment, promote risk reduction, facilitate informed substitution, foster pollution prevention outcomes, and advance the state-of-the-art in chemical risk assessment. AIM is available at http://aim.epa.gov. AIM has been well received by stakeholders, with over 6,700 AIM assessments conducted in the first four months of public release.

7. Work on implementing the Stockholm POPs Convention has progressed since the Convention entered into force. Despite EPA Administrator Whitman, in May 2001, making the United States a signatory to this Convention by signing the agreement, the United States Senate has not ratified the agreement, and Congress has not approved the necessary statutory changes to TSCA and FIFRA required to fully implement the treaty obligations.

a. Please describe the U.S. government's experience with implementation of the Convention since it entered into force.

The Parties have been actively implementing the Convention, including adding nine POPs to the Treaty last year. While the United States has been able to provide technical assistance and capacity-building to help other countries implement their obligations, as a non-party, we are unable to participate fully in the political or technical aspects of the proceedings as the agreement evolves over time and additional chemicals are added to its scope. Had the United States been a Party, we would have been afforded the opportunity to participate in the decisions to add the nine additional substances. The United States may have also had the opportunity to play a leadership role in determining the direction of these and other decisions taken by the members of the Convention.

b. Please state whether the new chemical listing process has proceeded as the United States anticipated under the treaty as negotiated.

Yes, the listing process has proceeded as anticipated. As stated above, as a non-party, we are unable to participate fully in the political or technical aspects of the proceedings as the agreement evolves over time and additional chemicals are added to its scope. Had the United States been a Party, we would have been afforded the opportunity to participate in the decisions to add the nine additional substances. The United States may have also had the

opportunity to play a leadership role in determining the direction of these and other decisions taken by the members of the Convention.

c. Please state whether the treaty as implemented has changed in any respect from the treaty as negotiated by the United States.

The treaty has been amended to include a new Annex G on Arbitration and Conciliation Procedures for Settlement of Disputes, and to include nine new POPs in the Convention. These chemicals are Pentachlorobenzene, C-Octabromobiphenyl ether components, C-Pentabromobiphenyl ether components, Alpha HCH, Beta HCH, Gamma HCH, Chlordecone, Hexabromobiphenyl, and PFOS.

8. EPA established a PMN policy with respect to new PBT chemicals in 1999.

a. Please explain the Agency's experience implementing that policy.

Through the 1999 Policy Statement on New Chemicals Category for PBTs, EPA adopted specific identification criteria and the associated process that EPA would use in evaluating new chemical substances suspected as being persistent bioaccumulators. The Policy Statement made clear to submitters of new chemical notifications under TSCA section 5 that substances meeting these criteria may need to undergo testing on "P" and "B" endpoints which, if confirmed, would be followed by appropriate toxicity testing to identify "PBT chemical substances." In addition, the Policy Statement made clear that control action under TSCA section 5(e) may be needed in varying degrees, based upon the level of risk concern.

During its review of "potential" PBT notifications, EPA carefully assesses the chemical substance to ensure that exposures and releases are carefully controlled or avoided entirely. EPA will, if necessary, deny an LVE and/or require binding controls on releases and exposures. For PMNs, EPA will, if necessary, regulate the substance through TSCA section 5(e) Consent Orders/Significant New Use Rules (SNURs), non-5(e) SNURs, or will ban the manufacture of the substance pending the development of upfront testing needed by EPA to conduct a reasoned evaluation of the effects of the substance.

During the period from FY01 - FY08, EPA received approximately 291 Pre-Manufacture Notices (PMNs) or Significant New Use Notices (SNUNs) and 369 Low Volume Exemption notifications (LVEs) that were identified by the Agency as "potential" PBTs. All of these were regulated/restricted by EPA in some fashion or were withdrawn by the submitter during the review period. LVEs that were not withdrawn were either denied by EPA or were bound to the terms of the exemption notice (i.e., strict control on releases and exposures). All of the PMNs/SNUNs that were not withdrawn were regulated with 5(e) Consent Orders/SNURS, non-5(e) Consent Orders, or were banned pending upfront testing.

Of the section 5 notices submitted between FY01 thru FY08, we identified the chemicals in 369 Low Volume Exemptions and 291 PMNs/SNUNs as potential PBTs.

b. Please state the number of new PBT substances that have been introduced into commerce since 1999.

The Agency did not begin tracking PBTs in the new chemicals program until Fiscal Year 2001. Starting in Fiscal Year 2001, about 6% of all new chemical notices have been determined to be PBTs, for a total of 680 through 2008. There does not seem to be a discernible trend that we can identify, but the range is from a low of 56 in 2008 to a high of 109 in 2002.

c. Please describe the risk management measures, if any, the Agency required for those substances.

In our new chemicals program, it is our policy to ban Pre-Manufacture Notice chemicals that have a persistence >6 months and bioaccumulation >5000 pending upfront testing, and, for chemicals with persistence >2 months and bioaccumulation >1000, to regulate under a TSCA section 5(e) order to control exposures and releases, and to require testing.

Based on section 5 notices, between FY01 thru FY08 we identified the chemicals in 369 LVEs and 291 PMNs/SNUNs as potential PBTs. All of these were regulated/restricted by EPA in some fashion or were withdrawn by the submitter during the review period. LVEs that were not withdrawn were either denied by EPA or were bound to the terms of the exemption notice (i.e., strict control on releases and exposures). The PMNs/SNUNs that were not withdrawn were regulated with 5(e) Consent Orders/SNURS, non-5(e) Consent Orders, or were banned pending upfront testing.

d. Please state whether the PMN policies have been effective in minimizing or eliminating risks to human health or the environment, and if so, how.

EPA believes the implementation of the 1999 Policy Statement on New Chemicals Category for PBTs has led to the identification and risk management of PBT chemicals within the New Chemicals program. Through the Policy Statement, EPA adopted specific identification criteria and the associated process that EPA would use in evaluating new chemical substances suspected as being persistent bioaccumulators. The Policy Statement made clear to submitters of new chemical notifications under TSCA section 5 that substances meeting these criteria may need to undergo testing on "P" and "B" endpoints which, if confirmed, would be followed by appropriate toxicity testing to identify "PBT chemical substances." In addition, the Policy Statement made clear that control action under TSCA section 5(e) may be needed in varying degrees, based upon the level of risk concern.

Starting in Fiscal Year 2001, about 6% of all New Chemical notices have been determined to be PBTs, for a total of 680 through 2008. Based on section 5 notices, between FY01 thru FY08 we identified the chemicals in 369 LVEs and 291 PMNs/SNUNs as potential PBTs. All of these were regulated/restricted by EPA in some fashion or were withdrawn by the submitter during the review period. LVEs that were not withdrawn were either denied by EPA or were bound to the terms of the exemption notice (i.e., strict control on releases and exposures). The PMNs/SNUNs that were not withdrawn were regulated with 5(e) Consent Orders/SNURS, non-5(e) Consent Orders, or were banned pending upfront testing.

9. Please describe any steps the Agency is taking to address the findings of the 2008 Society of Environmental Toxicology and Chemistry's Pellston Workshop on PBT characteristics. Please also describe how the Agency is incorporating the developing science and better identifying PBT substances identified by that Pellston workshop, the goal of which was to improve the process of identification and evaluation of chemicals against the PBT criteria.

The Pellston Workshop are Society of Environmental Toxicology and Chemistry (SETAC) sponsored meetings whose purpose is to evaluate current and prospective environmental issues. At the 2008 Pellston Workshop, the principal objective was to develop consensus guidance on how to evaluate chemicals using scientific information such as experimental data, monitoring data, and computer models to determine if they fulfill PBT criteria (Kleèka et al., *IEA&M* 2009, 5:535-538). The workshop results have been presented in a series of technical papers in the October 2009 issue of the journal *Integrated Environmental Assessment and Management* (IEA&M).

Efforts to improve our program in this area include employing a dedicated team of senior scientists to perform predictive calculations for industrial chemicals; updating our bioaccumulation model to include an absorption, distribution, metabolism and excretion (ADME) component which predicts the metabolism of chemicals; and incorporating environmental compartment-specific half-lives into the evaluation of chemical persistence.

10. Please describe the impact of EPA's New Chemicals PBT Policy on the number of new PBT chemicals. Of the new PBT chemicals of which EPA has been notified, please state the general trend for release of these chemicals into the environment?

EPA did not begin tracking PBTs in its new chemicals program until Fiscal Year 2001. Starting in FY2001, about 6% of all new chemical notices have been determined to be PBTs, for a total of 680 through 2008. There does not seem to be a discernible trend that we can identify, but the range is from a low of 56 in 2008 to a high of 109 in 2002. Based on section 5 notices, between FY01 thru FY08 we identified the chemicals in 369 LVEs and 291 PMNs/SNUNs as potential PBTs. All of these were regulated/restricted by EPA in some fashion or were withdrawn by the

submitter during the review period. LVEs that were not withdrawn were either denied by EPA or were bound to the terms of the exemption notice (i.e., strict control on releases and exposures). The PMNs/SNUNs that were not withdrawn were regulated with 5(e) Consent Orders/SNURS, non-5(e) Consent Orders, or were banned pending upfront testing.

11. Your testimony references EPA's PBT Profiler tool, which I have been told was designed largely for industry's use in designing safer/greener new chemicals. Please generally identify the primary users of this tool and describe the benefits derived from that use.

The PBT Profiler was designed to be used by public stakeholders with a wide variety of technical skills and expertise and was jointly developed by industry, Environmental Defense, and EPA. It was released to the public in 2002.

The PBT Profiler interprets the results for non scientists so that a broader array of stakeholders can assess PBT characteristics. The user base of the PBT Profiler is wide and diverse. The methodology is used by industry, the public, NGOs, academic and research institutions, State environmental agencies, and other parts of the U.S. Federal Government, among others. Stakeholders have conducted over 200,000 chemical specific PBT screening studies using the PBT Profiler.

The PBT Profiler offers users many benefits. The tool can be used to estimate PBT characteristics for new chemicals and can be used to compare and contrast existing chemicals for PBT characteristics. This can help drive informed chemical substitution and identify pollution prevention and risk reduction opportunities. As examples, Bayer Chemical Company used the PBT Profiler to compare and contrast alternatives at research and development phase for a new chemical. The Dutch Government used the Profiler to evaluate 50 chemicals detected in harbor sediments. The Federal Aviation Administration used the Profiler to evaluate safety of chemicals used in aircraft components. SC Johnson evaluated chemicals in their supply chain for PBT characteristics. FMC Corporation evaluated 50 chemicals for PBT traits.

12. In responding to a question from Representative Whitfield on the difference in legal standards between TSCA chemicals and FIFRA pesticides, you mentioned the pesticide standard of "reasonable certainty of no harm". Please state whether there are distinct differences between routes of exposure for pesticides, governed under FIFRA, versus other chemicals which could be subject to TSCA.

Yes, "reasonable certainty of no harm" is the standard for issuing pesticides tolerances from the Food Quality Protection Act and the "no significant adverse effects" language is from TSCA. The potential routes of exposure assessed under FIFRA and TSCA are the same; dermal, inhalation,

AL-09-001-5697

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

DEC 11 2009

OFFICE OF
WATER

The Honorable Henry Waxman
Chairman
Energy and Commerce Committee
U.S. House of Representatives
Washington, DC 20515

Dear Chairman Waxman:

This letter sets forth my responses to the Energy and Commerce Committee's questions for the record, pursuant to the October 1, 2009 hearing before the Subcommittee on Energy and Environment on H.R. 3258, the Drinking Water System Security Act of 2009, and H.R. 2868, the Chemical Facility Anti-Terrorism Act of 2009.

If you have further questions, please contact me or your staff may call Greg Spraul in EPA's Office of Congressional and Intergovernmental Relations at 202-564-0255.

Sincerely,

Pete Silva

Peter S. Silva
Assistant Administrator

1. *In reading H.R. 3258, I believe I have found a non-delegation problem. Could you please tell me what standard is created in H.R. 3258 under proposed Safe Drinking Water Act Section 1433(h)(2)? Can you assure me that this provision will pass constitutional muster?*

   EPA response: There is no constitutional problem with Section 1433(h)(2). Section 1433(h)(2) provides that a vulnerability assessment (VA) or site security plan (SSP) "has a significant deficiency" if the Administrator, in consultation, as appropriate, with the State determines that the VA doesn't comply with regulations developed under 1433(a)(1) or the SSP fails to address vulnerabilities identified in the VA or fails to meet "applicable risk-based performance standards," which are to be developed as part of the regulations under 1433(a)(1). Therefore, the "significant deficiency" standard in 1433(h)(2) is based on the regulations that EPA will be required to develop under Section 1433(a). We believe that Section 1433(a) provides sufficient direction to the Agency on the content of the regulations such that whether there is a "significant deficiency" will not be left entirely to the Administrator's discretion.

2. *The DHS pandemic guidance for the water sector recommends the maintenance of a 12 week supply of critical materials, including disinfectant and other chemicals. Gaseous chlorine represents the only disinfectant that can reasonably achieve this target. Can you guarantee me that the IST provisions in these bills won't prevent necessary chemicals from being on site for these facilities to tackle pandemics?*

   EPA response: EPA does not believe that the IST provisions in H.R. 3258 would prevent necessary chemicals from being on site for drinking water facilities to operate during a pandemic. Supply chain reliability is a critical attribute for disinfection and other treatment processes at drinking water systems. Thus, supply chain reliability should be included in an IST assessment (i.e., an assessment of Methods to Reduce the Consequences of a Chemical Release from an Intentional Act) as a factor appropriate to the system's security, public health, or environmental mission, as provided for in H.R. 3258, Section 1433(g)(2). An assessment of supply chain reliability, including the appropriate amount of materials to be stored on site, is specific to a particular water system, locale, and disinfection process. However, EPA would only support an IST decision that achieved a high level of supply chain reliability. EPA also recognizes that risk management requires balancing threat, vulnerabilities, and consequences with the cost to mitigate risk.

3. *Has EPA done any analyses of the range of costs that may be imposed on community water systems as a result of implementing the drinking water bill (H.R. 3258)?*

   EPA response: EPA has not analyzed the range of costs that may be imposed on community water systems as a result of implementing H.R. 3258. EPA has not analyzed compliance costs for drinking water systems from implementing site security plans, methods to reduce the consequences of a chemical release from an intentional act, and other provisions in the bill. If this bill becomes law, EPA will

conduct a detailed analysis of costs associated with implementing it as part of the regulatory development process.

4. *What is the range of costs that may be imposed on community water systems to comply with the requirements of the bill? In particular:*
   (a) What would be the range of costs for assessments?
   (b) And the range of costs for making mandatory IST changes for Tier 1 or 2 facilities?
   (c) Are the potential costs for making mandatory IST changes for Tier 1 or 2 facilities essentially open ended? If not, what would be the upper limit in terms of anticipated costs?

   EPA response: As stated in response to question 3, EPA has not analyzed these costs, but would do so as part of the regulatory development process if the bill became law.

5. *The way I read H.R. 3258, there is no way to appeal a decision on IST other than by hauling the EPA or DHS or the State to the Courthouse. As I understand it, there are 870 affected facilities under these two bills. In the extreme, you could be jointly facing 870 litigants. Don't you think it would be wise to have an internal or administrative appeals process that would help resolve IST disputes matters so you can worry about security and not legal motions?*

   EPA response: Under the version of H.R. 3258 reported out of the House Energy and Commerce Committee on October 21, 2009, Section 1433(g) (3)(D) requires EPA, or the State if it has primacy, to provide water systems "an opportunity to appeal" EPA or the State's determination to require implementation of a method to reduce consequences of a chemical release from an intentional act. This language does not mandate that the appeal process use the federal or state court system. EPA and States could meet the requirements of this section by providing systems an opportunity to appeal the determination using an administrative appeals process. EPA agrees that an administrative process would help resolve disputes more expeditiously than using the court system. EPA notes that the Agency has not determined that there are 870 affected facilities under H.R. 3258 and H.R. 2868, as stated in the question.

6. *Many people who support use of IST in a drinking water context do so because they want to remove "chlorine gas" as a treatment method because they fear the effects of gas into the air. These folks prefer pushing liquid bleach, also known as sodium hypochlorite, and powder and tables made of calcium hypochlorite. I have some technical questions:*
   (a) Is the handling and use of (1) chlorine gas or (2) liquid bleach and calcium hypochlorite tablets and powder more regulated by Federal and state entities?
   (b) Isn't it true that all forms of chlorine can turn gaseous, including liquid bleach (sodium hypochlorite) and powder and tablets (calcium hypochlorite)?
   (c) Isn't it true that "off gassing" or the inhalation of vapors which occur when calcium and sodium hypochlorite containers are opened at a water facility are serious sources of complaints at drinking water plants?

(d) Isn't it true that bleach is flammable and tablets are explosive and spontaneously combust when combined with oxidizers and other contaminants?
(e) Which substance is responsible for more accidents and successful thefts, chlorine gas or liquid bleach and calcium hypochlorite tablets and powder?
(NOTE) Based on 1998 data compiled by the American Association of Poison Control Centers, of all the chlorine related accidents in one year, 78 percent were from sodium hypochlorite (bleach), 13 percent were from calcium hypochlorite (tablets and powder), and 9 percent were from chlorine gas.

EPA response:
(a) The transportation, storage, and usage of chlorine gas, liquid bleach, and calcium hypochlorite are all subject to regulation by multiple federal agencies and states. EPA has not done an analysis for the purpose of establishing which form of chlorine is "more" regulated. However, chlorine gas is subject to federal regulations, such as EPA's Clean Air Act Risk Management Program, that do not apply to sodium hypochlorite or calcium hypochlorite.
(b) Yes, sodium hypochlorite and calcium hypochlorite can form chlorine gas, particularly at low pH conditions.
(c) EPA has not compiled information on complaints from drinking water plants due to the inhalation of vapors when calcium and sodium hypochlorite containers are opened. "Off gassing" in this context typically refers to the formation of oxygen gas from the decomposition of sodium hypochlorite into sodium chloride and oxygen. Equipment used for the storage, piping, and pumping of sodium hypochlorite should be designed for the safe venting of off-gasses. Further, proper materials handling and safety procedures must be followed in the use of any chlorine product.
(d) Bleach (sodium hypochlorite) is not flammable and will not support combustion. Tablets (calcium hypochlorite) are a powerful oxidizing agent and can react explosively with reducing agents, acids, or combustible materials.
(e) EPA has not compiled data on accidents and successful thefts of chlorine gas or sodium or calcium hypochlorite. General data from poison control centers on chlorine related accidents may not be indicative of product safety at water utilities. Bleach (sodium hypochlorite) is frequently used by individuals for laundry and cleaning, and calcium hypochlorite is widely used by individuals as a disinfectant for pools and other applications. In contrast, chlorine gas is used only in commercial applications, which are far fewer in number than individuals using bleach and calcium hypochlorite and which would be expected to have much better adherence to safety protocols than individual users.

7. *What is the comparative greenhouse gas footprint for chlorine vs. bulk hypochlorite vs. onsite generation (OSG)? Has the Agency modeled this practice or considered it as part of its endangerment finding? How does the administration value the risk tradeoff between the increased Green House Gases from transporting bulk hypochlorite versus the greater power need for OSG?*

EPA response: EPA has not done a comprehensive analysis of greenhouse gas emissions associated with the use of chlorine vs. bulk sodium hypochlorite vs. onsite

generation of sodium hypochlorite. However, such an analysis would not be expected to show significant differences in total greenhouse gas emissions between the three processes. The production of chlorine and bulk hypochlorite by a chemical manufacturer and the onsite generation of hypochlorite at a utility all involve the electrolysis of purified brine solutions, which accounts for the majority of energy usage. Chlorine requires less energy to transport (on a per pound of chlorine basis) than bulk hypochlorite because chlorine is more concentrated, but the operation of chlorine disinfection processes at utilities uses somewhat more energy than operation of bulk hypochlorite disinfection. Further, relative greenhouse gas emissions between the three processes would vary depending on local circumstances (e.g., shipping distances).

8. *What is the expected role [of] the state primacy agency in implementing the IST provisions? Can you assure me that the Agency will never threaten to rescind, explicitly or implicitly, a state's primacy delegation over concerns that the state was not being aggressive enough in promoting IST at drinking water facilities?*

   EPA response: EPA's expectation for the role of the state primacy agency in implementing IST provisions is the role specified in H.R. 3258, Section 1433(g)(3)-(5), which is as follows: primacy states would review IST assessments by their covered water systems (i.e., assessments of methods to reduce the consequences of a chemical release from an intentional act); for a system in one of the two highest risk tiers that decides not to implement IST, the state would determine whether to require the system to implement IST after considering factors appropriate to the security, public health, feasibility, and environmental missions of the system and report this determination to EPA. The state would also provide the system with an opportunity to appeal the determination.

   If EPA found that a primacy state failed to determine whether to require a covered water system to implement IST, EPA would notify the State and system. If the State failed to make the determination within 30 days after being notified, EPA would make the determination. If EPA found that a water system in a primacy state had failed to implement IST when required by the State or EPA, then EPA could take enforcement action against the system if the state did not do so within 30 days. In these situations, EPA could consider the failure of the State to make a determination or to bring enforcement action when determining whether a State should retain primary enforcement responsibility. However, EPA's strong preference is to work with states to address any concerns regarding implementation rather than to rescind primacy.

9. *What does EPA believe are measures to reduce consequences, i.e., how do they define IST? If a utility takes reasonable precautions to ensure the security of the facility and its materials, as well as appropriate safety precaution under OSHA and the Clean Air Act's Section 112(r), would the agency force a utility to change disinfectant?*

EPA response: EPA's definition of IST (i.e., methods to reduce the consequences of a chemical release from an intentional act) for drinking water systems is that provided in H.R. 3258, Section 1433(g)(1) – a measure that reduces or eliminates the potential consequences of a release of a substance of concern from an intentional act, such as the elimination or reduction in the amount of a substance of concern; the modification of pressures, temperatures, or concentrations of a substance of concern; and the reduction or elimination of onsite handling of a substance of concern.

Before requiring implementation of an IST, H.R. 3258, Section 1433(g)(3)(C) requires EPA or a primacy state to consider "factors appropriate to the security of public health and environmental missions of covered water systems" including whether the method (1) would significantly reduce the risk of death, injury, or serious adverse effects from a chemical release; (2) would not increase the interim storage of a substance of concern; (3) would not render the system unable to comply with other federal or state requirements; and (4) is feasible. Under H.R. 3258, primacy states, rather than EPA, would make this determination for their systems, unless the primacy state failed to act, in which case EPA would make the determination. Compliance with existing federal requirements would not exempt a system from a possible state or EPA determination to implement IST.

10. *Under the Information Protection regimes in H.R. 3258, protected information is defined as, among other things, "other documents and records developed exclusively for the purposes of this section." I am interested in the type of facility that works on cyber-security plans as part of a water system review. Are you concerned that using the term "exclusively for the purposes of this section" is too narrow and could inadvertently make this vulnerability information public – when it should otherwise be worthy of protection"*

EPA response: We appreciate the concern that cyber-security plans related to any water system review should be protected from unauthorized disclosure just as other documents and records developed for purposes of the Drinking Water System Security Act are protected. EPA does not consider the use of the term "exclusively for the purposes of this section" to be too narrow to adequately protect vulnerability information. If "exclusively" were to be struck from the term "exclusively for the purposes of this section," there could be unnecessary confusion over what information is meant to be protected.

11. *I think we would all agree that allowing sensitive information about the security at or vulnerabilities of the facilities covered in H.R. 3258 is akin to gift wrapping the blue-prints for a terrorist attack at that facility. Since we consider tampering a felony, don't you think we would want something stronger than a misdemeanor to apply if someone recklessly discloses this information?*

EPA response: The Administration has not taken a position on the criminal liability provisions in H.R. 3258 (now Title II of the House passed HR 2868). The

Administration supports the dual goals of protecting sensitive information from unwarranted disclosure, while still encouraging sharing of necessary information with those who "need to know" (e.g., first responders) and protecting the public right-to-know about information that may affect public health and the environment. The Administration believes that the penalties should be the same for all three sectors covered by the HR 2868.

12. *Would EPA have personnel dedicated to ensuring that protected information was not inadvertently disclosed by the agency?*

    EPA response: All EPA personnel (and contractors) are required to take annual information security training. In addition, EPA staff in the Water Security Division and other program offices that handle non-public critical infrastructure information and vulnerability assessments are instructed in security procedures for that information. Such information is maintained in secured locations and overseen by document control officers who are responsible for tracking sensitive documents in order to maintain their security.

13. *Title IV of the Bioterrorism Act requires utilities to examine "chemical, biological, and radiological" threats to community water systems that would be posed by a terrorist act. H.R. 3258 does not include an explicit reference to "chemical, biological, and radiological" threats. Rather, it only asks community water systems to protect against substances of concern, as listed in the Clean Air Act's regulatory appendix for hazardous chemical releases to the air. Can you assure me that, if enacted, the provisions of H.R. 3258 would also protect me from "biological and radiological" threats?*

    EPA response: Under H.R. 3258, as reported out of the House Energy and Commerce Committee on October 21, 2009, vulnerability assessments and site security plans are not limited to substances of concern. Rather, per Section 1433(c), they must address "vulnerability to a range of intentional acts, including an intentional act that results in a release of a substance of concern" and must include a review of "pipes and constructed conveyances; physical barriers; water collection, pretreatment, treatment, storage, and distribution facilities, including fire hydrants; electronic, computer, and other automated systems that are used by the covered water system; the use, storage, or handling of various chemicals, including substances of concern; the operation and maintenance of the covered water system; and the covered water system's resiliency and ability to ensure continuity of operations in the event of a disruption caused by an intentional act." These provisions in H.R. 3258 are consistent with those in the 2002 Bioterrorism Act, and would address intentional acts involving biological and radiological, as well as chemical, threats. EPA also notes that under H.R. 3258, Section 1433(a)(5), the designation of substances of concern does not reference the Clean Air Act.

14. *I am concerned that the language in H.R. 3258 short changes rural water systems. Under Title IV of the Bioterrorism Act, rural water systems received grant money to*

help them perform the vulnerability assessments and site security plans. These systems are much smaller and do not have the rate base to support, or technical expertise to manage, any exercises required under this bill – including selection for IST actions by the Administrator. While I understand that there may be access to funding in this bill for some compliance issues, I am troubled that this money will be gobbled up by large cities with sizeable rate bases. Don't you think that there should be a dedicated pot of funding for rural areas so they don't slip through the cracks?

EPA response: H.R. 3258, as reported out of the House Energy and Commerce Committee on October 21, 2009, provides for several grant programs in Section 1433(q), including grants to covered water systems to prepare vulnerability assessments, site security plans, and emergency response plans; assess and implement IST (methods to reduce the consequences of a release of a substance of concern from an intentional act); and implement any other required security reviews and enhancements. Under H.R. 3258, priority for these grants is to be given to water systems with the greatest need and security risk.

EPA recognizes that rural water systems do not have the funding base or technical expertise of larger systems. These challenges faced by rural water systems would be considered in the need-based prioritization for grant funding as provided for under H.R. 3258. EPA and states will work together to ensure that all water systems, including those in rural areas, are able to successfully comply with the requirements of H.R. 3258.

AL-09-001-8904

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY - 6 2010

OFFICE OF CONGRESSIONAL AND
INTERGOVERNMENTAL RELATIONS

The Honorable Henry A. Waxman
Chairman
Committee on Energy and Commerce
U.S. House of Representatives
Washington, D.C. 20515

Dear Chairman Waxman:

Thank you for the opportunity to respond to questions for the record that followed the November 17, 2009, hearing on U.S. Chemical Management Reform. I hope this information will be useful to you and the members of the Committee.

If you have any further questions, please contact me or your staff may contact Christina J. Moody in my office at 202.564.0260.

Sincerely,

Arvin R. Ganesan
Deputy Associate Administrator

Attachment

The Honorable George Radanovich

1. In your testimony you mentioned that ChAMP was canceled after a careful review of the program. I am concerned that the decision process might have been hasty. Could you please give me a detailed description of what and who was involved in the review of ChAMP?

Soon after her arrival at the Agency, EPA Administrator Lisa Jackson identified strengthening the agency's chemical management program as one of her top priorities. After careful review and consideration by senior Agency officials EPA concluded that the Chemical Assessment and Management Program was too focused on categorizing thousands of chemicals, which would take years. This review also highlighted that the categorizations were often based on limited and incomplete test and exposure data. On September 29, 2009, EPA Administrator Lisa Jackson outlined a comprehensive program to strengthen the Agency's chemical management program. This effort includes the development of chemical action plans which identify potential concerns with the chemical and actions that the Agency is considering address those concerns. The Agency identified the initial list of chemicals for action plan development based on one or more of the following factors: their presence in human blood; persistent, bioaccumulative, and toxic (PBT) characteristics; use in consumer products; production volume; and other similar factors. EPA is considering how best to engage stakeholders and the public on the selection of future action plan chemicals.

On December 30, 2009, EPA made public the first four action plans on phthalates, short-chain chlorinated paraffins, perflourinated chemicals (PFCs), and Polybrominated diphenyl ethers (PBDEs). For this initial set of chemicals, the actions EPA intends to take include adding phthalates and PBDE chemicals to the Chemical of Concern list, under TSCA Section 5(b)(4) as chemicals that "may present an unreasonable risk of injury to health and the environment.". In addition, EPA is beginning a process that could lead to risk reduction actions under section 6 of TSCA for several phthalates, short-chain chlorinated paraffins, and perfluorinated chemicals; reinforcing the DecaBDE phaseout – which will take place over three years – with requirements to ensure that any new uses of PBDEs are reviewed by EPA prior to returning to the market; and a range of Design for the Environment efforts to reduce risks.]On March 29, 2010, EPA made public the BPA Action Plan which indicated that the Agency, among other things, is considering adding BPA to the Chemical Concern list on the basis of potential environmental effects.

EPA is still working on the action plan for the remaining chemical from the initial list, benzidine dyes. On March 17, 2010, EPA posted an additional four chemicals for upcoming action plan development, Diisocyantes, Hexabromocyclododecane (HBCD), Nonylphenol and nonylphenol ethoxylates (NP/NPE), Siloxanes.

As part of this broader effort, EPA will also continue to require submission of data on High Production Volume chemicals where it has not already been provided, review provided data

and post the results of those reviews, and seek to improve the quality and quantity of data submitted to the Agency on existing chemical uses and exposures.

EPA believes that this targeted approach will prove more protective of human health and the environment.

2. If EPA is in need of data on chemicals so desperately, as you and some of the other members of the witness panel suggested, why did EPA end the ChAMP program? Were you having successes under ChAMP?

The ChAMP program was not designed to produce additional test data on chemicals, but rather used data already available, as a result of the voluntary HPV Challenge program and required exposure and use information provided under Inventory Update Rule (IUR) reporting, to identify chemicals as high, medium or low concern. Separate regulatory action is required under TSCA to require the submission of data. As the Administrator announced on Sept 29, 2009, EPA is continuing work to do what is possible under TSCA to require submission of data by issuing test rules and modifying required reporting under the IUR.

3. Has the EPA fully utilized all the information from the HPV program? In light of this, how would the EPA handle mass quantities of information regarding thousands of different chemicals?

The HPV Challenge Program was designed to ensure that basic, screening-level health and environmental effects data on approximately 2,800 HPV chemicals is available to the public. To that end, EPA has made all of the submissions available to the public through the High Production Volume Information System (HPVIS) and through its website http://www.epa.gov/hpv. Additionally, EPA is reviewing and summarizing the hazard information submitted under the HPV Challenge Program, and making this information available to the public through the continued development of hazard characterizations that are posted on our website (http://www.epa.gov/champ/pubs/hpv/hazard.html). To date, EPA has completed and made publicly available hazard characterizations for 320 chemicals.

While a large amount of data was collected through voluntary chemical sponsorships of some chemicals, other chemicals remained unsponsored in the HPV Challenge Program. Therefore, EPA is collecting basic hazard data for these unsponsored chemicals through regulatory efforts. Toxic Substances Control Act (TSCA) section 4 test rules and section 8(a) and 8(d) information reporting rules have been issued by EPA to gather this much needed data.

4. In Daryl Ditz's testimony he refers to the data on nearly 3,000 chemicals that will be provided by the REACH program in 2010. Considering that at your current level of staff and resources you still have information from the HPV program that has yet to be utilized, what would you need in terms of staff capabilities and resources to be able to efficiently handle this amount of information?

While EPA will not be able to determine additional resource needs in the absence of a specific proposal, EPA recognizes that REACH may result in the production of a significant volume of information on chemicals in commerce in Europe, and intends to make use of those data to the extent possible in both its current activities as well as under any new system of chemical assessments resulting from potential legislation Although EPA cannot make any estimates regarding additional resource needs under a revised statute, the Agency hopes to avoid unnecessary duplication to the extent possible by using appropriate data generated elsewhere, including in REACH, if it is mandated to determine the safety of existing chemicals. The Agency would anticipate that chemical producers would also be able to take advantage of such data in support of their claims of safety. As the Administration's Principles for Legislative Reform indicate, we believe EPA should be given a sustained source of funding for implementation, and that manufacturers of chemicals should support the costs of Agency implementation, including review of the information provided to EPA.

5. Do you believe an increase in animal testing will need to be done in order to obtain the type of data that EPA might use for prioritizing, including but not limited to minimum data sets for non-priority chemicals? If so, how much? How reliable is computer modeling?

EPA prioritizes chemicals for various purposes, and depending on the end purpose of the prioritization exercise, EPA may consider a variety of endpoints such as hazard, exposure, production volume and use, biomonitoring, etc. Many of these do not involve new animal testing. Whether under TSCA or new legislation, EPA will strive to avoid unnecessary testing, while doing what is necessary to protect human health and the environment.

To this end, EPA recognizes the need to develop and utilize new technologies for chemical assessment, and EPA's Office of Research and Development (ORD) is currently an international leader in developing and assessing the utility of these technologies in its Computational Toxicology Program (http://www.epa.gov/NCCT/). For example, ORD's ToxCast program is determining whether the non-animal based, high throughput screening tools used by the pharmaceutical industry to discover new drugs can be applied to prioritize chemicals for Agency review. This year they will begin extending this screening approach to a total of 1,000 chemicals and we expect to see if this approach will be effective within the next two years. Additionally, EPA has partnered with NIH researchers to begin a study of 10,000 chemicals using the high throughput capabilities of the NIH Chemical Genomics Center. Together these research efforts will help improve our modeling capabilities while we continue to use existing tools to help avoid unnecessary animal testing.

6. Since EPA is prohibited from using human data in regulating, would that mean that bio-monitoring would be off-limits to you?

We noticed this question states that EPA is prohibited from using human data to regulate. Just to clarify, EPA does place many ethical protections on using human studies, and certain studies involving pregnant or nursing women and children are banned. However, provided the studies meet ethical and scientific standards (as reviewed by Institutional Review Boards), EPA can consider certain human studies in the decision making process. Human observational studies, which can include biomonitoring studies, are appropriate to use in EPA's chemical assessments and provide valuable information about human exposures. For example, EPA will use data where appropriate from the National Health and Nutrition Examination Survey (NHANES), which is a program of studies designed to assess the health and nutritional status of adults and children in the United States. The survey is unique in that it combines interviews and physical examinations. Sources of biomonitoring data such as NHANES are based on observations and do not involve the intentional dosing of test subjects. EPA will ensure that the biomonitoring data it uses are based on the most up-to-date sound science and the highest ethical standards, including conformance with the requirements at 40 CFR 26 where applicable.

7. When President George W. Bush came into office in 2000 he did NOT pull the plug on the High Production Volume (HPV) Challenge Program which had been started under President Clinton. Instead, he chose to continue the efforts of his predecessor and rather than see it as political, chose not to pull the plug or force it to be renamed. Why is the Obama administration pulling the plug on ChAMP when its replacement program is proceeding in a manner that is not inconsistent with ChAMP?

Soon after her arrival at the Agency, EPA Administrator Lisa Jackson identified strengthening the agency's chemical management program as one of her top priorities. After careful review and consideration by senior Agency officials, EPA concluded that the Chemical Assessment and Management Program was too focused on categorizing thousands of chemicals, which would take years. This review also highlighted that the categorizations were often based on limited and incomplete test and exposure data. On September 29, 2009, EPA Administrator Lisa Jackson outlined a comprehensive program to strengthen the Agency's chemical management program. This effort includes the development of chemical action plans which identify potential concerns with the chemical and actions that the Agency intends to take to address those concerns. The Agency identified the initial list of chemicals for action plan development based on one or more of the following factors: their presence in human blood; persistent, bioaccumulative, and toxic (PBT) characteristics; use in consumer products; production volume; and other similar factors. EPA is considering how best to engage stakeholders and the public on the selection of future action plan chemicals.

On December 30, 2009, EPA made public the first four action plans on phthalates, short-chain chlorinated paraffins, perflourinated chemicals (PFCs), and Polybrominated diphenyl ethers (PBDEs). For this initial set of chemicals, the actions EPA intends to take include adding phthalates and PBDE chemicals to the Chemical of Concern list, under TSCA Section 5(b)(4) as chemicals that "may present an unreasonable risk of injury to health and the environment". In addition, EPA is beginning a process that will evaluate the need for risk reduction actions under

section 6 of TSCA for several phthalates, short-chain chlorinated paraffins, and perfluorinated chemicals; reinforcing the DecaBDE phaseout – which will take place over three years – with requirements to ensure that any new uses of PBDEs are reviewed by EPA prior to returning to the market; and a range of Design for the Environment efforts to reduce risks. On March 29, 2010, EPA made public the BPA Action Plan which indicated that the Agency, among other things, is considering adding BPA to the Chemical Concern list on the basis of potential environmental effects.

EPA is currently finalizing the remaining chemical from the initial list, benzidine dyes, and on March 17, 2010, EPA posted an additional four chemicals for upcoming action plan development, Diisocyantes, Hexabromocyclododecane (HBCD), Nonylphenol and nonylphenol ethoxylates (NP/NPE), Siloxanes.

As part of this broader effort, EPA will also continue to require submission of data on High Production Volume chemicals where it has not already been provided, review provided data and post the results of those reviews, and seek to improve the quality and quantity of data submitted to the Agency on existing chemical uses and exposures.

EPA believes that his targeted approach will prove more protective of human health and the environment.

8. You mention that EPA has only been able to require testing on 200 chemicals. Does this number include new chemicals subject to section 5(e) orders which require testing?

No. This number refers to TSCA Section 4 authority to issue test rules and enforceable consent agreements to generate test data on existing chemicals.

9. Your testimony states that "chemicals should be reviewed against safety standards that are based on sound science and reflect risk-based criteria protective of human health and the environment. EPA should have the clear authority to establish safety standards based on risk assessments, while recognizing the need to assess and manage risk in the face of uncertainty." Does this mean that EPA supports a risk management strategy rather than one based on "safety?"

Chemicals should be assessed on the basis of risk, against whatever safety standard is established. Risk-based criteria means taking into account both hazard and exposure. The principles also state that EPA should have clear authority to take risk management actions when chemicals do not meet the safety standard, with flexibility to take into account a range of considerations, including children's health, economic costs, social benefits, and equity concerns.

10. You mention in your testimony that EPA should be able to act in the "face of uncertainty." Could you please explain what this means?

Uncertainty is a routine issue confronted in science, and particularly in risk assessment. Even the most thorough assessments can not answer every conceivable question that may arise in the course of conducting a risk assessment. As long as assessments are based on sound scientific principles and data, the Agency should be able to use those assessments to carry out its responsibilities.

11. I noticed in the electronic version of your testimony submitted to the Committee that the type face appears different in a sentence on page three stating: "EPA should have clear authority to take risk management actions when chemicals do not meet the safety standard, with flexibility to take into account a range of considerations, including children's health, economic costs, social benefits, and equity concerns." Was this the product of inter-agency review? Did EPA try to change this and OMB made the Agency go back at the end? Do you support this language that is in your full testimony as presented to the committee?

The language quoted comes directly from Principle No. 3 of the Administration's "Essential Principles for Reform of Chemicals Management Legislation," and I fully support that language and the Administration principles.

12. Does EPA intend to try and regulate any chemicals under Section 6 of TSCA before Congress enacts changes to it? If so, for what purpose?

It is clear that TSCA could be significantly strengthened to improve effectiveness, as indicated in my testimony and the Administration principles. Nonetheless, EPA has a responsibility to do all that it can under current authority to assess chemicals and take appropriate action to protect human health and the environment. EPA intends to utilize the array of regulatory tools under TSCA to address risks, including authority to label, restrict, or ban chemicals under Section 6 of TSCA.

13. Are there existing authorities under TSCA that you feel EPA is not using to the fullest extent? Are there other authorities that are being used fully?

Since enactment over thirty years ago, EPA has only successfully used its Section 6 authority five times, and was largely unsuccessful in its attempt to ban asbestos, a well-known human carcinogen. EPA has required testing for only 200 of the tens of thousands of existing chemicals in commerce. TSCA needs to be updated to provide EPA the mechanisms and authorities to expeditiously target chemicals of concern and promptly assess and regulate new and existing chemicals.

14. The ChAMP approach involved applying the results of the HPV Challenge Program, reporting of use and exposure information under the Inventory Update Rule, and other available information (e.g., available in EPA or other databases). One of the criticisms you had of ChAMP was that it was based on voluntary information. Is the Inventory Update Rule reporting voluntary? How will the information sources that you plan to use

for identifying and documenting action plan chemicals differ from the information sources used in ChAMP?

The IUR reporting is not voluntary; however, the nature of the data provided under the current IUR limits EPA's ability to assess exposure, particularly from uses "downstream" of the manufacturer or importer.

For chemicals identified in action plans, we have expanded the set of information sources searched and added more detailed evaluation of uses. Where we identify a need to initiate regulatory action, we will conduct more quantitative and detailed assessments, as appropriate to the specific regulatory finding.

15. In your oral testimony you stated that 16,000 chemicals on the TSCA Inventory had confidential chemical identities. How many of these 16,000 chemicals are former new chemicals? How many are chemicals that were on the original Inventory? How many of these 16,000 chemicals were reported under the most recent IUR as being produced at high volume?

Of the 16,000 chemicals on the TSCA Inventory with confidential chemical identities, approximately 3,000 were on the original Inventory and approximately 13,000 were added through the New Chemicals Program. Fewer than 100 were reported in the 2006 IUR as high production volume.

16. In your oral testimony you stated that EPA will move forward on one of ChAMP's components, the inventory reset effort, "in the future." Given the critical importance to future legislative development efforts of understanding how many and what chemicals are actually in commerce in the US, why is this not seen as essential work to undertake now?

Clarifying the number of chemicals in commerce may be useful for planning purposes, but is not essential to completing TSCA reform. In deciding how best to use current resources – both EPA resources and those of the regulated community - to protect human health and the environment under TSCA, EPA will consider the risk reduction benefits of an Inventory reset as compared to other activities.

17. Some questions were raised in the hearing about EPA's use of structure activity relationships (SAR) tools in assessing new chemicals. Recognizing that these tools have been used over the past 30 years and across both Republican and Democratic Administrations, this seems like an important issue to understand. What instances are you aware of where EPA's new chemicals program has failed to identify problematic new chemicals? Has EPA done any studies or other analyses to try to understand the performance of its SAR methods and the extent of erroneous SAR calls? What have those studies shown? Please provide details on what EPA has done and any reviews or peer reviews that have been conducted.

EPA has developed an extensive multi-disciplinary process to predict the potential risks from each new substance, including the use of known information and data, expert judgment, as well as an array of tools and models (including SAR tools/models) built on the extensive experience with the review of thousands of other chemicals in the PMN program, and available data and information on analogous chemicals. Our experience has shown that our SAR tools do a good job of initially assessing new chemicals. This statement is based on peer review/verification studies we have conducted on these tools and the general lack of substantial risk reports submitted under TSCA section 8(e) on chemicals that have been reviewed in the New Chemicals Program that would indicate errors in our assessments.

The models and SAR tools have a history of peer review by the EPA Science Advisory Board (SAB) and other bodies. For example:

- **2005-2006** – SAB Review of EPI Suite models. [EPI Suite is a suite of models that provide screening level estimations of physical/chemical properties and environmental fate properties. These properties are the building blocks of exposure assessment.]
- **2002** - Peer review of the PBT Profiler prior to public release in 2002. [PBT Profiler predicts **P**ersistence, **B**ioaccumulation, and **T**oxicity of organic chemicals from their structure]
- **1993** – EPA/European Community Project to verify new chemical SAR predictions for ecological toxicity. [The study found our SAR methods to be accurate 60-90% of the time depending on the endpoint. Study & Report entitled, *U.S. EPA/European Community (EC) Joint Project on the Evaluation of (Quantitative) Structure Activity Relationships*.]
- **1992 and 1998-1999** - Peer review of the OncoLogic system by external cancer experts prior to public release. [OncoLogic is a computerized expert system that analyzes a chemical's structure to determine the likelihood that it will cause cancer]

The Government Performance and Results Act (GPRA) sets objectives for offices to conduct periodic assessments of their key programs and to work toward developing results-based and cost-efficiency performance measures. In FY 2006, EPA adopted (with a FY 2004 baseline) a Performance Assessment Rating Tool (PART) measure that EPA uses to assess the performance of the TSCA New Chemicals Program (NCP). The measure establishes a "zero tolerance" performance standard for the number of new chemicals introduced into commerce that pose an unreasonable risk to workers, consumers, or the environment. The measure involves a comparison of TSCA section 8(e) hazard data submitted to EPA in a given fiscal year with any related previously submitted TSCA section 5 pre-manufacture notices to determine whether EPA properly identified those hazards. The question asked during the assessment is 'What would the New Chemicals Program conclude about the hazards if it received the same chemical today?' The Agency has achieved the 100 percent goal in four of five years that the measure has been tracked (FY 2004 to FY 2008), and has a 99.6 percent success rate overall. The Agency recognizes that this measure does not involve systematic sampling and testing of all

PMN-reviewed chemicals that have entered U.S. commerce, but believes nonetheless that it represents an efficient approach for using available information to assess and improve the effectiveness of EPA's new chemicals risk screening tools and decision-making processes.

When new test data that meet our data quality standards are submitted with a new chemical, OPPT uses this data to evaluate that new chemical but also to evaluate our model predictions (a model validation measure) and expand the database on which our predictive models are based or to develop a new predictive model.

The hazard identification process in the New Chemicals Program also utilizes data on structurally analogous existing chemicals. The procedures used by OPPT to uncover pertinent toxicity information rely on a variety of readily available bibliographic systems, databases, studies submitted to EPA under 8(e) and 8(d), and knowledge from technical experts. As appropriate, such information causes the New Chemicals Program to alter its assessments of the hazards of categories of new chemicals.

For example, long-chain perfluorinated chemicals provide an example of a category of chemicals presenting issues that were not anticipated by SAR. In 1999, EPA became aware, based on testing conducted by manufacturers and submitted under TSCA section 8(e), that certain of these chemicals already in commerce (i.e., existing chemicals) bioaccumulate in wildlife and humans and can be toxic to laboratory animals and wildlife. Although these perfluorinated chemicals were understood to be persistent, their toxicity and bioaccumulative potential were not anticipated by SAR. EPA immediately took regulatory and voluntary actions to further investigate these chemicals as well as to reduce their emissions and use in products. These actions included Significant New Use Rules, the PFOA Stewardship Program, Enforceable Consent Agreements, and development/implementation of a specific regulatory strategy for reviewing substitutes for long-chain perfluorinated substances as part of the TSCA New Chemical review process.

In addition, previously in 1995, EPA had issued a final rule exempting certain unreactive halogen-containing polymers (including polymers that may contain such perfluoroalkyl moieties) from full TSCA section 5 pre-manufacture notification requirements. In 1995, the best available information indicated that such polymers were chemically and environmentally stable and would not present an unreasonable risk to human health and the environment. In fact, some of these chemicals were included in an exemption from new chemicals review by EPA, based on a belief that their polymeric structure precluded any hazard. In January 2010, EPA issued a final rule revoking the exemption from full reporting for these types of polymers.

18. Do any other countries or organizations such as the Organization for Economic Co-operation and Development (OECD) rely on SAR methods in their efforts to prioritize or assess the hazards or environmental fate properties of new or existing chemicals (for example, will SAR methods be used under REACH?) and, if so, identify those countries and organizations? Has EPA made its SAR tools publicly available for use by industry (for example, in designing and developing new chemicals, assessing existing chemicals, etc.)

or foreign governments? How have they been made available and for what purposes have they been used?

It is EPA's understanding that SAR tools will likely be used for some purposes under REACH and are also used by some OECD countries. Over the last 10 years the OECD has been educating member countries on the use of SAR methods and has turned to the US EPA/OPPT to often lead the efforts, along with other countries currently employing SAR. To facilitate practical application of (Q)SAR approaches in regulatory contexts by governments and industry and to improve their regulatory acceptance, the OECD (Q)SAR project has developed various outcomes such as the principles for the validation of (Q)SAR models, guidance documents, as well as the (Q)SAR Application Toolbox. The OECD (Q)SAR Toolbox (first released in March 2008, and updated in December 2008) includes many of EPA's SAR tools. EPA has also made its SAR tools publicly available for download via its own website. Case studies from OECD member countries employing predictive tools are included in the following document: OECD's Report on the Regulatory Uses and Applications in OECD Member Countries of (Q)SAR Models in the Assessment of New and Existing Chemicals (OECD, 2006).

In addition, in 2002, EPA initiated the Sustainable Futures (SF) Initiative, a voluntary program that encourages chemical developers to use EPA's models and SAR methods to screen new chemicals for potential risks early in the development process. The goal is to produce safer chemicals more reliably and more quickly, saving time and money. This means getting safer chemicals into the market and in use. Companies that take requisite training and graduate from Sustainable Futures can earn expedited review by EPA for prescreened new chemical notices.

19. Several of the witnesses at the hearing, including Dr. Ditz and the industry witnesses, emphasized the importance of the data development work which is already in process under REACH in the EU and how this information could contribute to US efforts to prioritize and assess chemicals. While recognizing that accessing CBI data presents difficulties, what steps has EPA taken to work out arrangements to obtain access to the non-CBI hazard and exposure information which will be reported in the EU? What assurances can you provide that EPA will be able to access the information and on what timeline?

EPA has informal arrangements with the EU, Australia and Canada which allow environmental and public health data to be accessed by the Agency, including confidential business information. EPA is exploring how such processes might be expanded and made routine. Because of the provisions in TSCA, however, it is difficult for the U.S. to reciprocate in sharing confidential business information with foreign regulators where it might contribute to mutual public benefit. Chemicals management experience and information is also shared more broadly with EPA's participation in activities of the OECD Environment, Health and Safety program. In collaboration with the EU, EPA contributed to the development of the eChemPortal from which multiple chemical data sources can easily be accessed.

20. What is the existing overlap between chemicals on the US inventory and the results of the preregistration reporting under REACH and, based on this information, how many US chemicals will potentially be registered at the December 2010 time point? Considering the reporting under the Inventory Update Rule for these chemicals, how many are high volume chemicals in the US? How many are moderate or low volume chemicals in the US?

There could be significant overlap between the TSCA Inventory and the REACH pre-registration list. According to the European Chemicals Agency (ECHA), the current REACH pre-registration list contains about 143,000 chemicals, pre-registered by upwards of 65,000 companies. Given the large number of chemicals on the pre-registration list and questions regarding the accuracy and validity of the data,, we have not conducted a comparison with the TSCA Inventory. Once the REACH registration list is established, EPA will be able to make a more valid comparison between this list and chemicals listed in the TSCA Inventory.

The Honorable Cliff Stearns

1. Do you believe the U.S. Should move toward a purely European approach to regulating chemicals, such as what the Europeans are doing with their REACH initiative?

The EU's REACH initiative is in its early stages and EPA hopes to learn from their experience. EPA is advocating for legislation which follows the Administration Principles and which meets the needs of the U.S. for chemicals management.

2. It is my understanding that under REACH, the EU is being inundated with information about chemicals and they may have to suspend the program in order to get caught up. Is that correct?

EPA is not aware of any plans to suspend REACH.

3. As the Republican Co-Chair of the Transatlantic Legislators Dialogue, I have had to press my European counterparts to ensure that U.S. Cosmetics – a $2 billion industry – were not taken off shelves in Europe due to the overly burdensome REACH requirements. Is this the direction you would like to see the U.S. Go in?

EPA is advocating for legislation which follows the Administration Principles and which meets the needs of the U.S. for chemicals management.

AL-10-000-3848

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 3 0 2010

OFFICE OF CONGRESSIONAL AND
INTERGOVERNMENTAL RELATIONS

The Honorable Henry A. Waxman
Chairman
Committee on Energy and Commerce
U.S. House of Representatives
Washington, D.C. 20515

Dear Chairman Waxman:

Thank you for the opportunity to respond to questions for the record that followed the February 25 hearing on Endocrine Disrupting Chemicals in Drinking Water. I hope this information will be useful to you and the members of the Committee.

If you have any further questions, please contact me or your staff may contact Christina J. Moody in my office at 202.564.0260.

Sincerely,

Arvin R. Ganesan
Deputy Associate Administrator

Attachment

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 3 0 2010

OFFICE OF CONGRESSIONAL AND
INTERGOVERNMENTAL RELATIONS

The Honorable Fred Upton
Ranking Member
Subcommittee on Energy and
Environment
U.S. House of Representatives
Washington, D.C. 20515

Dear Congressman Upton:

Thank you for the opportunity to respond to questions for the record that followed the February 25 hearing on Endocrine Disrupting Chemicals in Drinking Water. I hope this information will be useful to you and the members of the Subcommittee.

If you have any further questions, please contact me or your staff may contact Christina J. Moody in my office at 202.564.0260.

Sincerely,

Arvin R. Ganesan
Deputy Associate Administrator

Attachment

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 3 0 2010

OFFICE OF CONGRESSIONAL AND
INTERGOVERNMENTAL RELATIONS

The Honorable Edward J. Markey
Chairman
Subcommittee on Energy and
Environment
U.S. House of Representatives
Washington, D.C. 20515

Dear Chairman Markey:

Thank you for the opportunity to respond to questions for the record that followed the February 25 hearing on Endocrine Disrupting Chemicals in Drinking Water. I hope this information will be useful to you and the members of the Subcommittee.

If you have any further questions, please contact me or your staff may contact Christina J. Moody in my office at 202.564.0260.

Sincerely,

Arvin R. Ganesan
Deputy Associate Administrator

Attachment

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN 3 0 2010

OFFICE OF CONGRESSIONAL AND
INTERGOVERNMENTAL RELATIONS

The Honorable Joe Barton
Ranking Member
Committee on Energy and Commerce
U.S. House of Representatives
Washington, D.C. 20515

Dear Congressman Barton:

Thank you for the opportunity to respond to questions for the record that followed the February 25 hearing on Endocrine Disrupting Chemicals in Drinking Water. I hope this information will be useful to you and the members of the Committee.

If you have any further questions, please contact me or your staff may contact Christina J. Moody in my office at 202.564.0260.

Sincerely,

Arvin R. Ganesan
Deputy Associate Administrator

Attachment

Endocrine Disrupting Chemicals in Drinking Water:
Risks to Human Health and the Environment
House Committee on Energy and Commerce
February 25, 2010 Hearing Date
Jim Jones' Responses to the
Questions for the Record

Response to the Honorable Edward J. Markey

Markey 1. Do you believe that EPA has the personnel and resources to ensure that the endocrine disruptor screening program can carry out its intended purpose? If not, please elaborate on what resources might be needed.

Markey 1 Response: In the Office of Chemical Safety and Pollution Prevention (OCSPP), EPA currently has enough resources and personnel in the Endocrine Disruptor Screening Program.

Markey 2. In your testimony, you state that the validation of tests ensure that they are based on solid science and that they measure what they are intended to measure.

Markey 2a. It is my understanding that there are some rodent strains that are unusually sensitive to certain endocrine disruptors, and others that are unusually insensitive. When testing for endocrine disruption in animal systems is it necessary to take into consideration variation in sensitivity to endocrine disruptors that occurs in different rodent strains? How would a scientist determine the sensitivity of a rodent strain to a particular hormonal stimulus? Should scientists establish this baseline sensitivity using a known endocrine disruptor prior to testing an unknown compound for endocrine disruption?

Markey 2 and 2a Response: EPA has been concerned for many years about the possibility that rat strains may have different sensitivities to endocrine disruptors. In 2002 it commissioned a comprehensive literature search and report on the effect of strain and species on the mammalian assays being considered for the Tier 1 Battery of the Endocrine Disruptor Screening Program. As part of the preparation of the report, the contractor submitted a draft for review by an external reviewer. The final report and the external reviewer's comments have been on the EDSP Web site since the summer of 2003 (http://www.epa.gov/scipoly/oscpendo/pubs/program/whitepaper.htm).

The conclusion that EPA reached on the basis of this review is that while some strains may be more sensitive than others for individual endpoints, there is no single strain that is most sensitive overall in the assays with multiple endpoints. The external reviewer suggested that several strains be tested simultaneously to provide a better chance of minimizing sensitivity issues. There are problems with this recommendation. First, as the peer reviewer noted, it would take substantial additional research to identify which strains to use. Second, it would be substantially more costly (both in dollars and numbers of live animals) to test multiple strains. While the reviewer suggested that a reduced number of animals of each of multiple strains could be used to keep the total number of animals in the

study manageable, such an approach relies on the assumption that the same dose levels would be appropriate in all of the strains used. Without such an assumption, data could not be pooled across the strains. The assumption is not justifiable due to strain differences in rates of metabolism, sizes, etc.

EPA stated a preference for a particular strain of rat because it has data showing that that strain works correctly and identifies endocrine disruptors. If additional research shows that a different strain or set of strains is consistently more sensitive, the test guidelines may be changed appropriately. The Agency believes it is better to begin testing for endocrine disruptors now with a strain that has repeatedly been demonstrated to be sensitive enough to detect known endocrine disruptors than to wait for an optimal strain or set of strains to be identified.

Markey 2b. Do you specify in your test orders the strain of animal or cell type that must be used in a particular assay to ensure consistency across laboratories? If so, please elaborate, and if not, why not, since using a different strain could lead to widely varying and inconsistent results?

Markey 2b Response: Some test guidelines specify exactly the strain of animal or cell type that must be used. For example, the steroidogenesis assay requires that H295R cells be used. That cell line has characteristics that make it uniquely suitable to evaluate the entire metabolic path of steroidogenesis and without using that particular cell line the assay cannot work. In other assays, however, a preference for an animal strain rather than a strict requirement is given. This is usually because strain is only one of many factors that can affect the outcome of the study, and may not be among the most important variables. Studies using little-known strains or strains known to be inappropriate are likely to be considered "other scientifically relevant information" rather than information from a "validated" assay, and consequently subject to significantly greater scrutiny. If a laboratory presents data showing that the results of a screening assay have not been compromised by use of a non-preferred strain, the study may provide information that can carry significant weight in an overall evaluation of the chemical.

Markey 2c. It is my understanding that certain animal food and housing equipment contain chemicals that can act as endocrine disruptors and can subsequently interfere with assays that are designed to look at a hormonal endpoint. Do you specify in your test orders the type of food and housing procedures that are necessary in order to minimize contamination from these sources and to ensure consistency across laboratories? If so, please elaborate, and if not, why not, since this variability can lead to inconsistent results?

Markey 2c Response: The test guidelines contain provisions to restrict use of materials in feed and housing equipment that may interfere with the ability to detect endocrine disruptors. For example, the use of polycarbonate water bottles for rat studies is prohibited since water in prolonged contact with aged and distressed polycarbonate has been shown to have the potential to be estrogenic. Similarly, the fish and frog assays specify that glass aquaria are to be used. EPA does not restrict use of materials if they were judged not to have any bearing on the outcome of the study. For example, use of polycarbonate cages for rats is not prohibited since the cages are not expected to be in

contact with water for a prolonged period of time. In the case of rat feed, the level of natural plant-based estrogens has been capped at a level that does not interfere with the results of a screening assay. However, EPA recognizes that there may be compounds present in feed and housing equipment that may have endocrine effects but we are simply unaware of them.

Markey 2d. What can you say about the accuracy of a study designed to evaluate whether a certain suspected endocrine disruptor causes adverse health effects in an animal strain if that study chose as its model an animal strain that is considered highly insensitive to hormonal stimuli?

Markey 2d Response: If an animal strain were highly insensitive to hormonal stimuli, weak endocrine disruptors might not be identified correctly by assays that use that strain. However, use of a putatively suboptimal strain might be justifiable if data show that it correctly identifies known weak endocrine disruptors, and if no other strain or set of strains has been shown to be more sensitive. It should be remembered that strain is only one factor among many that affect the outcome of an assay, and may not be the most important one.

Markey 2e. When designing assays for both the Tier 1 and Tier 2 protocols, is a positive relevant hormonal control, such as estrogen or testosterone, used to verify the relevance and responsiveness of the assay? If not, why not?

Markey 2e Response: Positive controls have been used (or are being used) in the validation for the Tier 1 and Tier 2 protocols. In addition, concurrent positive controls are required to be run in parallel with the test chemical in many of the Tier 1 assays. However, positive controls are not required in certain resource-intensive assays that detect multiple potential mechanisms of endocrine activity. For example, running estradiol in the pubertal female assay as a positive control might help ensure that chemicals that act similarly to estradiol would be identified but would not help to ensure that chemicals that are anti-estrogenic, that interfere with steroidogenesis, or that interfere with thyroid hormone activity would be identified. Including positive controls for each of the applicable mechanisms would require several different positive controls to be run simultaneously with a single test chemical. Ideally, a positive control would have to be included for estrogenicity through the estrogen receptor, anti-estrogenicity through the estrogen receptor, androgenicity through the androgen receptor, antiandrogenicity through the androgen receptor, aromatase inhibition, interference with steroidogenesis, and the many mechanisms by which thyroid function could be affected – each time a test chemical is tested. This would add significant cost and use of animals. The Agency believes that the performance criteria included in such complex studies will help to ensure that the study is run correctly.

Markey 2f. How will the results from positive control experiment influence concentrations of test chemicals that are used in the Tier 2 dose response assays?

Markey 2f Response: Results from positive control experiments in Tier 1 assays are not expected to influence concentrations of test chemicals that are used in the Tier 2 dose-

response assays. Appropriate dose levels are almost without exception chemical-specific so it generally is not advisable to set dose levels based on a different chemical (viz., the positive control in a Tier 1 assay). Presumably, a preliminary dose-range study and/or data from the Tier 1 pubertal, fish, and frog assays for each specific chemical would influence the selection of the dose levels for the Tier 2 assays for that chemical.

Markey 3. I recently wrote letters to both FDA and EPA about triclosan, which is used in many consumer products - from hand soap to cutting boards - despite questions about whether it works and potential for endocrine disrupting effects. Triclosan has also been found in nearly 60% of U.S. streams1, and the CDC demonstrated it to be contained in the urine of 75% of Americans2. FDA recently responded to my letter, and stated that it is "FDA's opinion that existing data raise valid concerns about the effect of repetitive daily human exposure to these antiseptic ingredients."

Markey 3a. Do you think triclosan should be screened under the Endocrine Disruptor Screening Program – or do you believe that the existing data could be sufficient to either accelerate the screening process or move straight to consideration for regulation under the Safe Drinking Water Act? Please explain your response.

Markey 3a Response:
The Agency uses its Contaminant Candidate List (CCL) and Regulatory Determinations processes to evaluate unregulated contaminants for potential regulation under SDWA. As noted in the response to your January 5, 2010 letter, EPA published our third CCL (or CCL 3) on October 8, 2009. This list includes unregulated contaminants that are known or anticipated to occur in public water systems and may require regulation under SDWA. In developing CCL3, EPA considered the best available occurrence and health effects data to evaluate a universe of approximately 7,500 contaminants and subsequently identified a list of 116 contaminants that presented the greatest public health concern for drinking water. While EPA evaluated triclosan as part of the universe of 7,500 contaminants, the Agency determined that it did not present as great a public health concern (for drinking water) as other contaminants that were selected for the final CCL 3.

Even if the Agency had listed triclosan on CCL3, in order to determine whether to regulate a contaminant with a national primary drinking water regulation (NPDWR), section 1412(b) of SDWA requires that EPA make an affirmative finding for all three of the following statutory criteria: (1) The contaminant may have an adverse effect on the health of persons; (2) The contaminant is known to occur or there is a substantial likelihood that the contaminant will occur in public water systems with a frequency and at levels of public health concern; and (3) In the sole judgment of the Administrator, regulation of such contaminant presents a meaningful opportunity for health risk reduction for persons served by public water systems. In the case of triclosan, the Agency would not have sufficient information for finished drinking water to address the second and third statutory criteria.

However, EPA is conducting several tests on triclosan as part of its research program. The Agency believes that these data will provide useful information on the potential of triclosan

to affect the endocrine system and believes that the results of this testing will provide the Agency with important information regarding the further testing needs for triclosan. EPA will continue to evaluate unregulated contaminants such as triclosan and will utilize any new, relevant data that might require the Agency to issue an EDSP test order for triclosan or reconsider placing this contaminant on future CCLs and/or future regulation.

Markey 3b. It is estimated that 95% of the uses of triclosan (found in numerous consumer products) are disposed of in residential drains and are consequently found in sources of water.3 When EPA re-evaluated triclosan for use as a pesticide did it take into consideration cumulative exposures that come from products that fall under FDA's jurisdiction? Are EPA's risk assessments based on this total public exposure? If not, why not, since EPA is charged with ensuring that drinking water is safe to drink irrespective of the source of the contamination of the drinking water?

Markey 3b Response: EPA's re-evaluation of triclosan for use as a pesticide considered all potential exposures to the general public resulting from EPA and FDA regulated uses. EPA's risk assessment is based on the total exposure from all uses that may co-occur including any contribution from contaminated drinking water. The total exposures from all sources of triclosan were derived from the National Health and Nutrition Surveys (NHANES) biological monitoring data. NHANES is a nationally representative biological (urine) survey of the general public, capturing their daily routines/exposures such as consumption of drinking water. EPA views the NHANES monitoring data as the most reliable and representative assessment of total exposures that co-occur including daily use products as well as to other sources of triclosan contamination such as drinking water.

Markey 3c. Currently, under EPA regulations products treated with triclosan to protect the product itself – such as a cutting board, for example - are not subject to the law requiring that the products be labeled as containing triclosan. Given the health concerns with triclosan, do you think that the public should be notified when a product contains triclosan, regardless of what type of product it is? Why or why not?

Markey 3c Response: EPA's pesticide regulations exempt "treated articles" from FIFRA requirements. See 40 CFR 152.25(a). A "treated article" is any product which has been treated with an EPA-registered pesticide to protect the product and for which no other pesticidal claims are made. For example, many paints, sealants, paperboard products, and plastic products (e.g., shower curtains) contain pesticides in order to prevent the growth of mold or mildew in or on the products. Before approving a pesticide for such materials preservative use, EPA carefully assesses the potential risks resulting from such use. This assessment includes consideration of the possible exposure a consumer, who uses the product, might experience. The Agency will not approve a pesticide for materials preservative uses if there is a risk to consumers who handle products treated with the pesticide. EPA's assessment of the materials preservative uses of triclosan concluded that except for use in paint as an in-can preservative, they did not pose a risk to consumers who would come into contact with products treated with triclosan, http://www.epa.gov/oppsrrd1/REDs/2340red.pdf. However, EPA determined that there were risks for the material preservative use of triclosan in paint as an in-can preservative.

Therefore, EPA did not re-register the paint use. Had EPA reached a different conclusion for the other material preservative uses, rather than requiring labeling of treated products, we would have disallowed the use of triclosan as a materials preservative. In sum, so long as a pesticide used in consumer products as a materials preservative is registered and its use complies with its EPA-approved directions for use and the treated articles exemption, EPA does not think there is any need to require a separate registration or labeling of products treated with such pesticide. As new information becomes available on the hazards and levels of exposure to triclosan, EPA will work with FDA to evaluate the safety of all uses of triclosan. If there are uses of triclosan as a pesticide that do not meet the safety standard, EPA will take the appropriate regulatory action to prohibit those uses.

Response to the Honorable Joe Barton

Barton 1. Regarding the EPA's endocrine testing program:

Barton 1a. How much has the EPA spent to date?

Barton 1aResponse: The Endocrine Disruptor Screening Program in the Office of Chemical Safety and Pollution Prevention (OCSPP) has total obligations of approximately $88.9M and 189.1 FTE from FY 1999 through the end of second quarter of FY 2010 . Note that this total obligation amount for the Endocrine Disrupter Screening Program of OCSPP does not include funds obligated through EPA's Office of Research and Development for endocrine disruptor research which includes the development of some screening assays.

Barton 1b. Is it true that EPA staff at one point thought chemicals might be screened under the EDSP for as little as $50 per chemical?

Barton 1b Response: We do not believe that the estimate that chemicals could be screened for $50 per chemical came from EPA. There were two sets of hearings held in 1991 and 1993 as a prelude to the passage of the FQPA. Although we have not researched the hearing records, it is our belief that this estimate was provided by one of the witnesses who testified that a single in vitro screen to detect estrogen receptor binding (the E-Screen) could be conducted for $50 per chemical. EDSTAC and other experts did not regard this simple, single assay approach to screening to be scientifically adequate to detect chemicals with the potential to affect the endocrine system.

Barton 1c. Is it true that most estimates currently put the cost of the Tier 1 testing battery at $500,000 to $1 million per chemical?

Barton 1c Response: Two estimates of laboratory costs have been performed, one commissioned by the American Chemistry Council (ACC) in 2003 and one by EPA in 2009. Additional information was submitted by the ACC as comments on the ICR.[1] EPA's study titled "Laboratory Testing of Chemicals for Endocrine Disruption Potential-Analysis of

[1] Borgert CJ. 2008. Comments on EPA's Information Collection Request developed for the Agency's EDSP. Docket No. EPA-HQ-2007-1081-0010.2 and EPA-HQ-2007-1081-0015.2

Market Factors" was designed, in part, to provide contemporary cost estimates from 17 laboratories for conducting the most recent protocols for the 11 screening assays in the EDSP Tier 1 battery.

EPA's study report indicated a median estimated cost to conduct the 11 assays was $532,397 per chemical. Since there was a large variation in the cost estimates among laboratories--EPA's study report indicated a minimum of $243,000 and maximum of $941,750 per chemical-- the median was reported to better convey the information. The highest and lowest cost estimates for all *in vitro* assays were provided by two laboratories.

In addition, in 2007, EPA published calculations for paperwork burden and costs for data generation activities (Information Collection Request, ICR) related to conducting 11 screening assays in the EDSP Tier 1 battery for the first list of 67 chemicals to be screened (Docket # EPA-HQ-OPPT-1081). In Attachment F of the supporting documentation, the average estimated cost to conduct the 11 assays was $404,315 per chemical. The 2003 survey, conducted by Applied Pharmacology and Toxicology, Inc. (APT) and funded by ACC was the basis for EPA's cost estimates for eight of the screening assays in the ICR. The APT survey included 11 laboratories and draft protocols available at the time for ER and AR binding, Steroidogenesis, Aromatase, Uterotrophic (ovariectomized), Hershberger and Female and Male Pubertal assays. EPA adjusted the APT survey cost estimates by an inflation factor of 1.14. Since the Human ER Transcriptional Activation, Amphibian Metamorphosis and Fish Short-term Reproduction screening assays estimates were not included in the initial APT survey, EPA cost estimates were based on professional judgment and the costs the Agency incurred during assay validation (Amphibian Metamorphosis and Fish Short-term Reproduction).

Although median and mean cost estimates from EPA's estimates in 2009 and 2007, respectively, are not directly comparable, the median estimate for the 2009 EPA study was approximately $10,000 to $20,000 higher for most individual assays than the mean estimate for the same assays in the 2007 EPA ICR. Apart from reporting the median versus mean, the discrepancy may be due, in part, to older versus newer versions of the protocols and economic changes between 2007 and 2009.

Barton 1d. If these expense estimates are accurate, in light of that expense, why would EPA not first evaluate existing data before taking other steps?

Barton 1d Response: Recipients of the EDSP Test Orders for the initial screening of chemicals have the option to submit or cite existing data (including citing data previously submitted to the Agency) that they believe is relevant to one or more of the assays specified in the Test Order. The Agency will review this Other Scientifically Relevant Information that may be submitted by either the test order recipient or the public in lieu of the Tier 1 battery. The policies and procedures the Agency adopted for initial screening under the EDSP recommend that the Test Order recipient or other parties, provide an explanation of the relevance of any cited existing data to the test order as well as a rationale for why they believe the information is or is not sufficient to satisfy part or all of the Tier 1 order. These policies and procedures provide for the use of information that is consistent with all or part

of the battery or may also inform the outcomes that the battery seeks to evaluate. In this manner, the Agency will only require needed data.

Barton 2. Dr. Borgert testified that expanding the endocrine testing program before the effectiveness of its testing system can be evaluated would be an inefficient use of taxpayer resources. Please state whether you agree or disagree with this statement.

Barton 2 Response: EPA accepted the recommendation of the 1999 review of the proposed EDSP by a Joint Subcommittee of the Science Advisory Board and FIFRA Scientific Advisory Panel to limit the number of chemicals in the first list to 50-100 chemicals and review the results before issuing a second list. This was a cautious approach and prudent when it appeared that such a list could be issued and data received by 2005. However, the validation of assays has taken far longer than EPA or anyone else anticipated. The current Tier 1 battery was reviewed by the SAP in March 2008 and found to be adequate to detect substances with estrogen, androgen, and thyroid activity. EPA believes the battery will produce sufficiently valuable data and that further delays in testing should not be made.

Barton 3. Do you agree that there are real world consequences that will accompany the results of the endocrine screening battery, and if so, doesn't that make it all the more important that the tests are precise and reliable?

Barton 3 Response: EPA agrees that issuing test orders which require recipients to conduct the endocrine screening battery has real world consequences. We also agree that it is important therefore for the tests that comprise the battery to be scientifically reliable for their intended purpose. Based on the extensive, multi-year effort to validate the assays used in the endocrine screening battery, we concluded that the testing methods we are requiring meet the statutory standard of being "appropriate validated tests systems." The independent, experts on the FIFRA Scientific Advisory Panel who reviewed the battery in March 2008 agreed with EPA's conclusion.

Barton 4. You testified the "first list of chemicals was selected solely on the basis of exposure." Exposure is an important consideration but how many of the selected chemicals are high risk chemicals for the purposes of this program?

Barton 4 Response: EPA is not prepared to identify any of the 67 chemicals on its initial list of substances undergoing EDSP screening as "high risk chemicals." When we began to identify substances for this list, scientists had not developed an approach for setting testing priorities based on the potential of a test substance to be an endocrine disruptor (although we are aware of promising research that may provide priority setting tools in the future). Therefore, EPA used exposure-based criteria to select chemicals for the initial list. We have repeatedly stated that the inclusion of a chemical on the initial list does not indicate that the chemical has the potential to disrupt the endocrine system. Rather, we will use the results of the Tier 1 battery to characterize the potential of substances to interact with the endocrine system, and where appropriate, the results of Tier 2 assays to define the

relationship between dose and response. With such information, EPA can assess the potential risks posed by human exposure to endocrine-disrupting chemicals.

Barton 5. Do the test orders for Tier I consist of a "cookie-cutter" or "one-size-fits-all" approach? If not, why? Could the quality of EPA's results be impacted by this kind of approach?

Barton 5 Response: No, the test orders for the EDSP Tier I assays require that recipients perform all 11 Tier I assays unless the respondent has justification equally informative as that which would be provided by conducting a particular EDSP Tier I assay (in other words, they have other scientifically relevant information that can inform determinations that would be generated through a Tier I assay). It is the responsibility of the respondent to provide significant justification that the Tier I assay has been satisfied in full in order to ensure the data needed to fulfill the Tier I assay requirements.

Barton 6. The statutory language of Section 1457 of the Safe Drinking Water Act requires EPA to test substances that may be in drinking water sources if a substantial population is exposed. Yet, your testimony states that EPA is compiling a list of 100 chemicals pursuant to non-statutory report language.

Barton 6a. Would any of the 100 chemicals not meet the statutory criteria of the Safe Drinking Water Act?

Barton 6a Response: The House Report for H.R. 2996, which accompanied the FY 2010 appropriations, for EPA directs the Agency to "publish within one year of enactment a second list of no less than 100 chemicals for screening that includes drinking water contaminants, such as halogenated organic chemicals, dioxins, flame retardants (PBDEs, PCBs, PFCs), plastics (BPA), pharmaceuticals and personal care products, and issue 25 orders per year for the testing of these chemicals."

EPA has already issued test orders for 67 pesticide chemicals and believes that it is important to continue testing additional substances for potential endocrine disrupting activity. We are currently developing our second list of approximately 100 chemicals and expect to invite public comment on the list within the next several months and begin issuing test orders later this year. Orders requiring testing of additional chemicals must be authorized under our existing statutory authorities, which include section 1457 of the Safe Drinking Water Act (SDWA) and section 408(p) of the Federal, Food, Drug, and Cosmetic Act (FFDCA). Some of the chemicals proposed for the second list will be pesticide ingredients, and we would rely on section 408(p) of FFDCA as the authority to issue test orders for these chemicals. The remaining chemicals proposed for the second list will be drinking water contaminants. For them, we would rely on section 1457 of SDWA, which requires EPA to make certain findings before issuing the test orders.

Barton 6b. Why does EPA intend to include pesticides on a non-statutory list that the agency previously concluded did not meet the minimum concern criteria to merit a listing on CCL3?

Barton 6b Response: As noted above, EPA believes it is important to evaluate chemicals, including pesticides, for potential for endocrine disrupting activity. We have a statutory mandate to screen all pesticide chemicals under section 408(p) of FFDCA. In addition to the initial list of 67 pesticides for which we have already issued test orders, we plan to use our statutory authority under section 408(p) of FFDCA to issue test orders for any other pesticides that are included on our second list. Note that some of the pesticides on the second list may also be drinking water contaminants as well.

Barton 7. Please explain whether much of the problem of the presence of these substances in surface waters could be solved with better waste water treatment techniques.

Barton 7 Response:
The effectiveness of technologies in removing the potentially wide range of chemicals that may be EDCs has not been fully studied. However, generally the more advanced the treatment technology, the greater the removal of chemical contaminants. Many factors impact the type of treatment that is appropriate for a publicly owned waste water treatment works (POTW). These include the source and type of contaminants in the waste stream, the size of the community served by the POTW, and the cost of the treatment technology to the community served. A portion of EPA's endocrine disruptor research budget is devoted to studying the effectiveness of wastewater treatment technologies to remove chemical contaminants.

Barton 8. Hasn't it been EPA's approach to conduct screening of an initial list of chemicals to test the performance of its Tier 1 screening battery? Doesn't EPA need to await the results of that screening before it undertakes additional screening?

Barton 8 Response: The purpose of the screening of chemicals on the initial list is to generate data that will be used to determine whether or not those chemicals have the potential to interact with the endocrine system. It is not specifically designed to test the battery; however, consistent with the 1999 SAB/SAP's recommendation, EPA will conduct an analysis of the data to determine how the different assays worked in concert with each other, compare the results with Part 158 data and with the ToxCast data to determine the correlation of the ToxCast assays with the EDSP results. ToxCast has been developed since 2005. The comparison of ToxCast results with the results of the Tier 1 battery is an important step in determining the potential of ToxCast, and to understand whether the relevant ToxCast assays provide the reliability and reproducibility required for chemical screening. Determining how well the assays work as part of the battery as a whole would allow EPA to optimize the battery by eliminating assays that provide needless redundancy or flag others for improvement or replacement. Ideally, this analysis would be conducted before EPA issued additional test orders.

Barton 9. In 1999, EPA's Science Advisory Board (SAB) and EPA's Science Advisory Panel (SAP) recommended that EPA conduct an initial phase of screening of 50 to 100 substances.

Barton 9a. Please explain the basis for that recommendation, including whether there were concerns that the assays or battery might not perform as hoped. Please further explain the SAP's specific concerns.

Barton 9a Response: The SAP report notes: "The Subcommittee supports the proposal to develop a two-phase program for endocrine disruptor screening and testing (EDST). Further, a formal reevaluation of the screening and testing process at regular intervals should be part of the program. The purposes of this reevaluation process would be to evaluate the effectiveness of the protocols initially adopted for screening and testing and to adopt new protocols in cases where none currently exist for identifying endocrine alterations or the effects of those alterations. Adoption of new screens and tests should also mean the elimination of previous, less useful ones."

Barton 9b. Please state whether EPA has undertaken the SAP-recommended phased approach by ordering screening of an initial list of 67 pesticide chemicals.

Barton 9b Response: As stated in several Federal Register notices, EPA is following the 1999 SAB/SAP's recommendations to screen 50-100 chemicals and review the results. That review is projected to occur in 2013 after all of the data have been submitted and reviewed by the Agency. However, EPA is also following the directive in the Appropriation Committee report that a second list of no less than 100 chemicals be published by October 31, 2010 and that the Agency issue a minimum of 25 orders per year.

Barton 9c. Please state whether EPA believes it may find it necessary to modify some Tier 1 screens and the T1S battery as a result of information it obtains from screening the initial list of chemicals.

Barton 9ci. Please state whether it is possible that the Tier 1 battery may not be effective for determining which chemicals may interact with the endocrine system. Please also explain the basis of EPA's conclusion...

Barton 9ci Response: EPA believes, and the SAP review in 2008 concurred, that the battery will perform its essential function to identify chemicals that interact with the estrogen, androgen and thyroid hormone systems. EPA does not anticipate any serious problems with any of the assays in the battery, but acknowledges that there is always the possibility of unforeseen problems that did not show up during validation. Please note that the validation process has been very rigorous, and EPA has carefully sought to balance the need for validation with the statutory mandate to require testing. EPA is developing potential replacement assays and will phase in newer technologies as they are validated. This is consistent with the SAP recommendations: "In summary, the proposed set of Tier 1 assays are appropriate to begin screening for disruptors of the [estrogen, androgen, and thyroid] EAT axes. However, several assays do not represent the current state of the science, or the proposed screens do not fully address major modes of action and should be updated and extended as soon as possible. The EPA should consider this set of assays to be a work in progress. The Panel expects that the EPA will continue to develop, refine, and review the battery. New endocrine disruptors and new mechanisms of action are likely to

be revealed in the future requiring that the current Tier 1 assays be modified and new ones developed and validated."

Barton 9cii. Please state whether it is possible EPA may find it necessary to significantly modify some assays and the battery.

Barton 9cii Response: Other than replacement of assays with newer technology, EPA does not anticipate significant modifications; however, as noted EPA is prepared to do so if this is warranted. EPA also intends to explore additional areas recommended by the Appropriation Committee such as the adrenal axis. The adrenal axis is the adrenal, the hypothalamus and pituitary glands and their hormones.

Barton 9d. Please state whether EPA drafted flexible implementation policy and procedures (as opposed to a rulemaking) on the basis that the agency might need to modify those policies and procedures in response to information it gathers in implementing the first phase of screening.

Barton 9d Response: EPA chose not to use rulemaking to codify its policies and procedures so that their modification could be more expeditious if warranted by the experience with the first group of 67 chemicals

Barton 9e. Please explain how the benefits of a phased screening approach can be if EPA does not awaits the results of phase 1 screening before undertaking additional screening.

EPA is proceeding with the second list before the analysis of the results from the first list can be conducted; however, what EPA learns from the first and second lists will be reflected into modifications to the EDSP, if appropriate, and applied to subsequent lists. Rather than a rigidly sequential approach, EPA is adopting a rolling approach to improvement of the EDSP.

Barton 9ei. Please state whether EPA has identified all issues that might arise during screening.

Barton 9ei Response: EPA made a good faith effort to identify the most important issues that are likely to arise during screening, and to prepare for them. However, there can be no guarantee that all important issues have been anticipated.

Barton 9eii. Please state if EPA has already determined whether or not it will modify its Tier 1 assays and battery.

Barton 9eii Response: As noted above, EPA plans to evaluate newer technologies that may provide significant advantages over some of the older technologies. However, until validation is complete and the Agency can be certain that such technologies provide equivalent or better information, a decision to modify the existing Tier 1 assays and battery would be inappropriate.

Barton 10. Please state whether, in 1999, the EPA Science Advisory Panel (SAP) stated with respect to Negative Control Agents, "There is a need to define and agree on some negative

control agents for [endocrine disruptor] assay validation. Assay specificity will not be capable of assessment unless such agents can be made available for general study."

Barton 10 Response: The sentences cited appear in the SAP's "Review of the EPA's proposed environmental endocrine disruptor screening program" released in 1999.

Barton 10a. Please state whether EPA has established and run negative control agents in some of the EDSP Tier 1 screening assays.

Barton 10a Response: EPA has established and run negative control agents in some of the EDSP Tier 1 screening assays. For example, in the estrogen receptor binding assay, octyltriethoxysilane has been established as a negative control agent. All of the Tier 1 assays were successfully tested with negative chemicals prior to the issuance of test orders. However, during the validation program, the chemical selected as the negative chemical for the pubertals showed some effects on the endocrine system, i.e., it was not negative. This raised concerns regarding the specificity of these assays.

Barton 10b. Please state whether in March 2008 the SAP told EPA, "A negative control substance(s) has not been identified for the pubertal assays and this stands as a major limitation to the Tier 1 battery."

Barton 10b Response: In SAP Minutes No. 2008-03 "A set of scientific issues being considered by the Environmental Protection Agency regarding: the Endocrine Disruptor Screening Program (EDSP) proposed tier 1 Screening Battery" transmitted to EPA in June of 2008 the SAP wrote as follows: "Although the Panel found that the battery of assays presented would serve as an adequate screen for estrogenic, androgenic and thyroid hormone disruptors, a number of recommendations were made for modifications of the assays and for further research. Among those are the following: ... 7. A negative control substance(s) has not been identified for the pubertal assays. This stands as a major limitation to the Tier 1 battery and more compounds should be tested. ..."

The follow-up to this concern was stated in the response to question 10a.

Barton 10c. Please state whether the Agency has released for independent peer, as well as public, review studies of a non-endocrine active, negative control agent in these pubertal assays.

Barton 10c Response: As of March 22, 2010 the Agency has not yet released for independent peer review its evidence that a chemical that has non-endocrine toxicity does not necessarily have effects on the endocrine system. The study, which has been completed, is actively being prepared for submission to a peer-reviewed journal.

Barton 10d. Please state whether the Agency has neglected to heed the advice of the SAP, and if so, please explain why.

Barton 10d Response: The Agency has not neglected to heed the advice of the SAP. The SAP called for additional research. EPA is preparing for publication the results of a

research study which addresses the SAP's concern about the lack of a negative control in the pubertal assays.

EPA also notes the difficulty of finding a chemical that is already "known" to be negative and that can be used to test whether the pubertal assays give the "correct" (negative) response, when no validated endocrine assays that test the breadth of endocrine mechanisms covered by the pubertal assays are available. That is, there is no accepted assay to compare the results of the pubertal assays to. Certainly there are chemicals which are known to be negative for specific mechanisms such as estrogen receptor binding or aromatase inhibition, but the pubertal assays test for effects that might be due to any of several different mechanisms and that may be modified by the complexities and possible interactions across multiple pathways of a living organism. Thus the negative control chemicals that are used in mechanism-specific assays and test-tube assays cannot be said to be "known" to be negative for all endocrine pathways tested by the pubertal assays.

Barton 10e. Please state the reasoning behind EPA's decision to require these assays despite the need for specificity as one of the core elements of establishing a scientifically valid assay.

Barton 10e Response: Since there are no compounds that are "known" to be negative for all of the endocrine mechanisms tested by the pubertal assays in a complex living organism and that could, thus, serve as chemicals to test the specificity of the pubertal assays, EPA has relied on the fact that certain chemicals are negative for one mechanism or another to show that the pubertal assays are specific. A thyroid-active compound could reasonably be expected to be negative for estrogenic or androgenic effects (although there is some cross-talk among the systems), and vice versa and indeed this is shown to be true when using the pubertal assays. Propylthiouracil, for example, showed clear effects on the thyroid in the pubertal female assay at a dose level that did not have an effect on the reproductive axis. Conversely, ethynyl estradiol showed clear effects on the reproductive axis but no effect on the thyroid system. The pubertal assays clearly do not give positive results for all endpoints for all chemicals, as might be expected if the pubertal assays responded to general stress rather than to endocrine-specific mechanisms and it was on this basis that EPA decided to include the pubertal assays in the battery proposed to the SAP. As noted above, EPA's Office of Research and Development continued to search for a chemical that would be generally toxic but devoid of all effects on the endocrine system.

Barton 10f. Please state the rationale for EPA's decision not to follow the SAP recommendations. Please explain why assays which may not be able to distinguish endocrine activity from other types of toxicity should be included in the endocrine screening battery if the purpose of that battery is to identify substances with the potential to interact with components of the endocrine system.

Barton 10f Response: As explained above, EPA has followed the SAP recommendations. . The fish screening assay contains apical endpoints such as fecundity which has caused some concern among stakeholders who argue that the screens should only measure endpoints specific to endocrine disruption. However, consistent with the recommendations of its advisory committees, EPA decided to include some apical endpoints as not all endocrine

modes of action can be captured without them. While other types of toxicity may also affect fecundity, the battery as a whole can be used to distinguish effects that are endocrine related from those arising from other modes of action.

AL-09-000-7489

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

OFFICE OF CONGRESSIONAL AND
INTERGOVERNMENTAL RELATIONS

JUN - 9 2009

The Honorable Henry A. Waxman
Chairman
Committee on Energy and Commerce
U.S. House or Representatives
Washington, DC 20515

Dear Mr. Chairman:

Thank you for the opportunity to respond to questions for the record that followed an April 22, 2009 hearing entitled "Legislative Hearing Regarding the American Clean Energy and Security Act." I hope the information attached will be helpful to you and members of the Committee.

If you have any further questions, please contact me or your staff may contact Diann Frantz in my office at (202) 564-3668.

Sincerely,

Joyce Frank

Joyce Frank
Acting Associate Administrator

EPA Responses to Questions for the Record from April 22, 2009 Hearing

1.a. What are your thoughts on how EPA will measure and evaluate foreign competitors' greenhouse gas emissions?

In order for the President to make a determination that a US sector is still at risk of carbon leakage under section 767 of the bill as introduced, EPA may need to assess the energy or greenhouse gas intensity of other countries. Among the sources of information that EPA would use for that purpose are the greenhouse gas inventories that are required of all countries under the United Nations Framework Convention on Climate Change (UNFCCC). As part of its position for the upcoming Copenhagen meeting in December, the United States has stated that all countries, except the least developed countries, should be required to provide greenhouse gas inventories on an annual basis (as developed countries currently do).

1.b. If a nation has established a comparable greenhouse gas reduction program, how will that program be evaluated in terms of reliability of compliance?

In 2007, the UNFCCC Parties agreed to address consideration of nationally appropriate mitigation action that is measureable, reportable, and verifiable. Common procedures and protocols and institutions exist for developed countries to produce timely and transparent inventories. Additional considerations may be necessary in some cases; for example, in some developing countries an assessment will need to balance the necessity of a rigorous measurement reporting and verification system with the reality of resource limitations in the developing world. However, by combining capacity building with aspects of established institutions, we believe an acceptable framework can be established globally that will provide the United States with information to be used in evaluating other countries' compliance with their domestic programs.

2.a. In the draft bill, the EPA is charged with establishing an offset credit program for carbon dioxide equivalent emissions. Northern Michigan has the potential to supply reforestation or afforestation projects under an offset program, but we also have large timber companies, as well as large pulp and paper companies that are major employers in the district. How the offset program is structured can determine whether it will help or hurt my district and many others across the country, and I want to know what your thoughts are on restricting the end use of forestry products from forestry-offset sites? In other words, can a landowner who participates in the offset program still market wood products for use in construction while complying with the EPA offset requirements?

We anticipate that in the case of forest management, a landowner opting to participate in the offset program could still continue to market wood products while also generating offset credits. The forest sector provides a number of opportunities to help mitigate climate change. For the working forests of large pulp and paper companies, offsets could potentially be generated through improved forest management. Forest management activities, such as lengthening harvest rotation age, enhancing tree density

in understocked stands, or improving felling practices, could increase carbon stocks and/or reduce emissions. To participate in the offset program, the practices applied to produce those wood products would need to be improved above and beyond the business-as-usual practices. In the case of crediting the carbon stored in the wood products themselves, we know, through our work with the US Forest Service, that carbon can be stored in wood products for long periods of time, but we have not yet explored how such storage could be included in a crediting system.

3.a. Is EPA's movement toward regulating mobile source greenhouse gas emission realistic?

Yes, it is realistic to move forward on regulating greenhouse gas emissions. As President Obama announced on May 19, 2009, the Administration plans to move forward on vehicle greenhouse gas and fuel economy standards for the 2012 through 2016 model years.

3.b. Have you consulted with the Dept. of Transportation on your plan to regulate greenhouse has emissions, and its impact on the current Corporate Average Fuel Economy (CAFE) standards that the Dept. of Transportation administers?

Yes, EPA and DOT have worked closely together and recently released, on May 19, a notice of intent to propose a joint rulemaking on a coordinated approach for greenhouse gas and fuel economy standards for 2012 through 2016.

4.a. As the bill is currently written, the EPA will have authority to regulate the greenhouse gas emissions of engines or vehicles defined as "nonroad vehicles." This regulation will cover everything from tractors and bulldozers to snowmobiles and lawnmowers unless the EPA deems it inappropriate. What criteria will EPA use to determine which engines are regulated?

The Agency would consider the relative contribution of all nonroad classes or categories to GHG emissions and the costs and technological feasibility for achieving reductions in each category before determining whether to establish standards, and if so, what types of engines to regulate. Any regulation of greenhouse gas emissions from nonroad sources under the bill, if passed, would be issued through rulemaking, which would include an opportunity for public comment on any proposed standards.

4.b. What will the expected costs be to industry and consumers from these potential regulations?

The Agency has not yet determined which categories should be regulated under the bill, if passed. EPA would need to assess potential costs as those determinations are made and as the structure and stringency of the standards are developed.

5.a. Under the SmartWay Transportation Efficiency Program, how does EPA differentiate between companies with their own employees and trucks doing

shipping as opposed to companies that contract out that work in terms of meeting their energy and greenhouse gas performance?
5.b. Are companies with integrated operations penalized in terms of efficiency and emission standards?

The goal of the SmartWay program is to reduce GHGs from goods movement, primarily by working with carriers and shippers. Section 223 in the American Clean Energy and Security Act would authorize EPA to develop the SmartWay Transport Efficiency Program to develop enhanced measurement protocols and tools to help shippers and carriers evaluate their energy and GHG performance; these protocols and tools would reflect the unique characteristics of carriers and shippers and their energy- and GHG-saving opportunities.

Under the current SmartWay Transport Program, companies with integrated operations are not penalized in terms of efficiency or emission standards. The programs that EPA's SmartWay program has constructed to date create a level playing field for all freight companies and account for all GHG emissions associated with goods movement. Specifically, companies with their own employees and trucks as well as companies that contract out that freight work would each have to account for all of the GHG emissions associated with their freight activities. EPA envisions that a Smartway Transportation Efficiency Program defined by the legislation would also account for all GHG emissions associated with moving goods.

6. In the President's Fiscal Year 2010 budget proposal, he indicated his desire to have a large portion of projected revenue from a cap-and-trade program to be devoted toward a long-term extension of the Make Work Pay tax credit to avoid families having projected increased energy costs. At the existing rate of $400 per individual and $800 per couple, is this level of tax relief sufficient to offset what you believe will be the projected increased costs of energy under a cap-and-trade program? I have seen reports of projected, annual per household carbon costs anywhere from $140 in EPA's study to $300 in a study done by MIT and $1600 from the Congressional Budget Office. With my district requiring more energy usage in terms of heating and transportation as well as deriving nearly all our power from coal-fired power plants, I want to know the Administration's view on mitigating costs for those least able to pay.

EPA believes that change in projected annual per-household consumption is the best measure of the cost that a cap and trade program would impose on consumers. Based on preliminary analysis of the introduced Waxman-Markey bill, the Agency currently projects that the cap and trade portion of the bill would reduce annual per-household consumption by an average of no more than $140 on a net present value basis over the 2010 to 2050 time period. This relatively modest number reflects the assumption made in this analysis that the bulk of the allowance value from the program would be returned to the people as a lump-sum rebate; in other words, the $140 estimate is net of any reimbursement of auction revenue back to consumers. Returning the auction revenues to

households would enable consumers to decide how best to use the value created in the program, for example, to buy more energy efficient light bulbs, to pay for electricity bills, or to use on the consumption of other goods and services. Furthermore, while the bill does not specify a particular method for using the value of allowances, returning the revenues in this fashion could make the median household, and those living at lower ends of the income distribution, better off than they would be without the program. However, a policy that failed to return these revenues to consumers would lead to substantially larger losses in consumption. A long-term extension of the Make Work Pay tax credit would be one way to return these revenues to consumers that would be consistent with EPA's analysis.

Osinski, Michael

From: Meltzer, Kathy
Sent: Saturday, July 26, 2014 12:14 AM
To: Osinski, Michael; OBrien, Kathy
Subject: RE: Advance Materials and Request for Information: NPM Guidance/NEPPS Workgroup Mtg, 7/29
Attachments: Flexibility Around Other Drivers for Grant Negotiations R9_Comment.docx

Mike and Kathy,

Thank you for pulling all of this together.

I've provided some comments on the "Flexibility" document.

For your consideration,
Kathy

Katherine Meltzer

U.S. Environmental Protection Agency
Region 9
75 Hawthorne Street
San Francisco, CA 94105

415-972-3714
meltzer.kathy@epa.gov

From: Osinski, Michael
Sent: Monday, July 21, 2014 3:04 PM
To: Lund, Lisa; Frazer, Brian; Armstead, John A.; Simon, Nigel; Bulanowski, Gerard; Salgado, Omayra; Filippelli, John; Stavnes, Sandra; Blevins, John; Rea, Kristi; gary.baughman@state.co.us; 'Tom.Lamberson@Nebraska.gov'; Guerry, Jacqueline B; 'Douglas.Fine@state.ma.us'; 'vethomson@deq.virginia.gov'; Weckesser, Mike; Jones, Laurice; 'bgraves@ecos.org'; Meltzer, Kathy; 'Nathan@nasda.org'; Banister, Beverly; Evans, David
Cc: Bloom, David; Rupp, Mark; Smith, Rita; Frank, Joyce; Greenblott, Joseph; 'patricia.aho@maine.gov'; Nguyen, Vinh; Walters, Margaret; Lydon, Maureen; Vernon, Jennifer; Helfgott, Daniel; OBrien, Kathy; Rubin, Howard; White, Bobbi; Adams, Lois K.; Wilbur, Jennifer; Meni, Reynold; Vincent, Marc; Wire, Cindy; Mahanta, Benita; Santos, Marco; Osinski, Michael
Subject: Advance Materials and Request for Information: NPM Guidance/NEPPS Workgroup Mtg, 7/29

Hello Everyone,

Thank you for you another very productive meeting last week. To prepare for our next meeting on Tuesday, July 29, we wanted to share the meeting materials and ask you to:

1) Update the "Flexibility Around Other Drivers for Grant Negotiations" table with any additional information and potential solutions
2) Identify your top 2-3 drivers and choke points that impact flexibility in grant negotiations

Please send us this information by **cob on Friday, July 25.**

Our goal for the next meeting is to complete the discussion on the flexibilities communicated through the NPM Guidance narratives. We also hope to identify the most important topics on other drivers that impede grant workplan flexibility for future workgroup discussions on flexibilities in other agency-wide processes.

Thank you,

Mike and Kathy

AL-11-000-8331

UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

JUN - 1 2011

OFFICE OF
AIR AND RADIATION

The Honorable Henry A. Waxman
House of Representatives
Washington, DC 20515

Dear Congressman Waxman:

Thank you for your letter of May 19, 2011, requesting information about the Environmental Protection Agency's implementation of Section 328 of the Clean Air Act. Attached are responses to the two questions posed in your letter.

If you have further questions, please contact me or have your staff contact Cheryl Mackay of our Office of Congressional and Intergovernmental Affairs at (202) 564-2023.

Sincerely,

Gina McCarthy
Assistant Administrator

Attachment

Attachment

1. During your testimony, you stated that EPA has not taken five years to process Shell's Clean Air Act permits for its proposed Arctic drilling operations and in fact had issued each permit "within three to six months of that permit application being complete." In response to a question asked by Rep. Sullivan, you also noted: "Shell has consistently revised the request, changed the project, changed what sea they want to drill in." Please provide the Committee with a timeline for the Shell permit applications that includes events external to EPA that affected the agency's processing of the permits, such as changes in Shell's proposed operations, actions by the Department of the Interior, and court decisions pertaining to Shell's exploration plan.

There are currently two permits for Shell activities in the Arctic that are at issue; both are for the Discoverer Drill Rig, one for the Chuckchi Sea, one for the Beaufort Sea. Both went from complete application to decision by the Environmental Appeals Board (EAB) in approximately 12 months. In describing how long it has taken Shell to get these permits, some people inaccurately include earlier permitting activity for projects significantly different than the current ones, as this brief timetable highlights. In 2007, Shell wanted permits for two ships, the Discoverer and the Kulluk, in the Beaufort Sea. Then in 2008, they dropped the Discoverer permit activities and focused on the Kulluk in the Beaufort Sea. Then in 2009, they dropped work on the Kulluk and focused on the Discoverer in the Chukchi Sea, but changed the controls on the Discoverer and supporting fleet significantly in the fall of 2009 when new data showed that their emissions would violate the PM2.5 health-based air quality standards. These changes, and the modeling analysis upon which they were based, required EPA to issue a revised proposed permit for public comment. Then in 2010, they again sought a permit for the Discoverer Drill Rig in the Beaufort Sea. Now Shell is in the process of submitting a new application for the Kulluk in the Beaufort Sea.

The major source permit for the Discoverer Drill Ship to operate in the Beaufort Sea went from complete application to final decision from the EAB in less than 12 months. It was originally filed on January 18, 2010. The permit was proposed on February 17 and finalized on April 9, less than 3 months after a complete application was filed. This permit was appealed to the Environmental Appeals Board, which remanded the permit back to Region 10 on December 30. The Region is now in the process of revising the permit consistent with the EAB decision and intends to issue the revised permit in September, 2011.

The major source permit for the Discoverer Drill Ship to operate in the Chukchi Sea also went from complete application to final decision from the EAB in 12 months. (The EAB decision was issued concurrently with the Discoverer Beaufort Sea decision.) Although Shell initially filed an application for this permit on December 11, 2008, Shell delayed the process significantly by submitting a revised incomplete permit application on September 17, 2009, which was not completed until December 22, 2009. This application not only included additional emission controls, but also requested numerous changes to EPA's proposed emission limitations and operational restrictions to reflect changes in how Shell intended to operate equipment on the

Discoverer as well as the support fleet. EPA had to issue a revised proposed permit and put it out for public comment, which it did on January 8, 2010. EPA had to follow this step even though EPA had issued a proposed permit for public comment on August 20, 2009 based on the December 11, 2008, permit application. EPA issued a final permit on March 31, 2010, just over 3 months after Shell submitted the revised, completed application. This permit was appealed to the Environmental Appeals Board, which remanded the permit back to Region 10 on December 30. The Region is now in the process of revising the permit consistent with the EAB decision and intends to issue the revised permit in September, 2011.

When people incorrectly say that Shell has been trying to get these permits for five years, they are starting the clock with two applications for minor source permits that were filed in December, 2006, but were not complete until early 2007. One of these was for the Kulluk Floating Drill Rig, for which Shell is only now working on re-submitting a complete permit application. The other was for the Discoverer Drill Rig to operate in the Beaufort Sea, but Shell asked EPA to defer action on this application in late 2007 (after the EAB had remanded it to the Region) and did not file a new permit application for the Discoverer Drill Rig in the Beaufort Sea until January, 2010.

It is inaccurate to start the permit clock from the date of the first two applications for a variety of reasons, not the least of which is that one application was for a different Drill Rig, neither was for the Chuckchi Sea, and, while one was for the same drill rig/sea combination now at issue, Shell dropped its request for action on this drill rig/sea combination from late 2007 until January, 2010 and is only now working on an application for the other drill rig.

2. Information pertaining to regulation under Title II of the Clean Air Act for vessels that are part of the OCS source's "associated fleet."

During the hearing, Committee members and one of the witnesses, Robert Meyers, noted that vessels servicing the OCS source—such as supply ships and ice breakers—are regulated under Title II of the Clean Air Act. To clarify how Title II applies to the associated fleet in general and associated vessels that are part of the Shell permits in particular, please answer the following questions:

a. **What ocean-going sources does EPA regulate under Title II of the Clean Air Act?**

b. **Does Title II apply to foreign flagged vessels?**

c. **When regulations are promulgated pursuant to Title II for ocean-going vessels, how are engines built before the effective date of those regulations addressed? Are retrofits required?**

d. **What are the applicable EPA and international fuel requirements for ocean-going vessels?**

e. **How do regulations under Title II apply to the ice breakers identified in the Shell permit application for the Beaufort and Chukchi Seas?**

While it is true that Title II regulations apply to certain vessels which may be used in OCS activities, it is not an accurate representation to say that, in the absence of the OCS permitting process, these vessels would still be regulated under the Clean Air Act. The OCS permitting process for Shell's operations has resulted in permit requirements for the support and service vessels that are, in some instances, more protective of public health than EPA can require under Title II of the Clean Air Act.

Shell's operations include support and service vessels, such as icebreakers, that have not been regulated under Title II of the Clean Air Act. Many of the large vessels, such as icebreakers, are foreign-flagged vessels. Title II engine requirements/regulations do not apply to foreign-flagged vessels. Instead, as part of our comprehensive marine program, we have relied on similar MarPol Annex VI engine standards through the International Maritime Organization (IMO). Those standards, like our Title II CAA standards, apply primarily to new vessels.

Many (if not all) of the vessels that are part of Shell's operations are older, having been built before the effective date of the most stringent marine engine standards. Our Title II regulations and the analogous MarPol Annex VI regulations apply only to new engines, and do not require retrofits of existing engines. Some minor reductions may be required from an existing engine, however, when that engine is undergoing a major engine remanufacturing event or ship survey. The CAA Title II and MarPol Annex VI do not require the installation of controls to achieve significant emission reductions from the existing legacy fleet of vessels, such as those operated by Shell.

Shell's actions in response to the EAB's remand of the Discoverer permits are illustrative of the additional environmental protection provided by the OCS permit process compared to Title II. Since the remand, Shell has agreed to add controls to one icebreaker to reduce both NOx and PM2.5 emissions. These additional controls will reduce NOx emissions from the icebreaker by 96% and PM2.5 emissions by 82%. Additional restrictions requested by Shell for emissions from the Discoverer and other support vessels will further reduce all emissions from the project (for example, total NOx emissions will be reduced by 72%).

As a result of the OCS permit process, Shell is using cleaner fuel than is required under Title II of the Clean Air Act or international law. When the Discoverer drill ship is an OCS source, the permit requires all of the engines on the Discoverer and all of the engines on the service and support vessels to use diesel fuel that contains no more than 15 ppm sulfur. Absent the OCS permit process, vessels in the Arctic using diesel fuel bought outside the United States legally

could have fuel sulfur levels as high as 35,000 ppm until 2020 and 5,000 ppm thereafter under International law. Absent the OCS process, for vessels that buy diesel in the United States, the fuel could contain up to 500 ppm sulfur until 2014, at which time it can contain no more than 15 ppm.