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**“Scientific Integrity and Transparency Reforms at the EPA”
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This testimony is presented by Dr. Francesca Grifo, Senior Scientist with the Union of Concerned Scientists (UCS), a leading science-based nonprofit working for a healthy environment and a better world. The full testimony is submitted for the record and Dr. Grifo will summarize her statement for the Committee.

Good morning, my name is Dr. Francesca Grifo. I am a Senior Scientist and the Director of the Scientific Integrity Program at the Union of Concerned Scientists, a leading science-based nonprofit working for a healthy environment and a safer world. I would like to thank Chairmen Boxer and Whitehouse, Ranking Members Inhofe and Barrasso, and the Members of the Committee for the opportunity to speak to you this morning about scientific integrity and transparency reforms at the EPA.

This written testimony contains a brief introduction (p. 1), a discussion of recent developments at the EPA (p. 2), UCS’s short-term recommendations for strengthening scientific integrity at the EPA (p. 3), a discussion of long-term issues affecting scientific integrity at the EPA (p. 7), the role of Congress in overseeing EPA’s work and in drafting new environmental and public health legislation (p. 10) and a summary of the UCS survey of EPA scientists and our report *Interference at the EPA* (p. 12).

I. Introduction

The U.S. Environmental Protection Agency (EPA) is at a crossroads. The EPA is emerging from a period of time where agency science was too often a casualty of political decisions made behind closed doors. The current administrator, Lisa Jackson, has reversed course on many of the most egregious of these decisions and has spoken eloquently about the central role of science and transparency in her vision for the EPA. Yet the agency faces mounting challenges in the coming years and the urge to justify policy decisions with tampered science remains a constant temptation.

In truth there is no silver bullet that will forever protect EPA science from political manipulation. Any law or policy regime that is flexible enough to allow fact-based decision making is vulnerable to mischief by unscrupulous policy makers. However, there are concrete reforms that can be adopted—such as whistleblower protections for scientists and greater transparency—that will safeguard EPA’s science against political interference.

We urge Administrator Jackson to go beyond reversing bad policies from the previous administration and set a higher bar for the agency. She should take concrete steps to secure the credibility of future EPA decisions by adopting the reforms described below.

To document recent problems with political interference in EPA science, the Union of Concerned Scientists (UCS), working with the Center for Survey Statistics and Methodology at Iowa State University, surveyed nearly 5,500 EPA scientists, asking for information about political interference in their scientific work, the use of science in EPA decision making, barriers to communication, employee morale, and the agency's effectiveness. We received completed surveys from 1,586 scientists, representing every scientific program office at EPA headquarters, all 10 regional offices, and more than a dozen research laboratories across the country.

We summarize the findings of our report, *Interference at the EPA*¹, in section VI of this testimony. We include a specific focus on interference in EPA science by the White House Office of Management and Budget (OMB).

II. Recent Developments

Since her confirmation, Administrator Jackson has clearly stated her commitments to scientific integrity and transparency in three memoranda to EPA staff:

- In a January 23, 2009 memo to all EPA staff, Jackson stated, “When scientific judgments are suppressed, misrepresented or distorted by political agendas, Americans can lose faith in their government to provide strong public health and environmental protection. ... I pledge that I will not compromise the integrity of EPA’s experts in order to advance a preference for a particular regulatory outcome.” In the same memo Jackson also pledged to operate “in a fishbowl.”² An April 23, 2009 memo provided some further details for her stated commitment to transparency.³
- In a May 9, 2009 memo, Jackson reiterated her pledge to uphold scientific integrity at the EPA stating, “Science must be the compass guiding our environmental protection decisions.”⁴

In addition to words, Administrator Jackson overturned a number of decisions that had harmed science-based policy making at the EPA.

- April 17, 2009 – reversed the Bush-era decision to ignore EPA’s scientific finding that climate change will endanger human health and set in motion potential curbs on greenhouse gas emissions under the auspices of the Clean Air Act.
- April 21, 2009 – restored the full reporting of toxic chemicals in the Toxics Release Inventory (TRI) that had been weakened by the Bush administration.
- May 21, 2009 – overturned Bush administration rules that greatly reduced the role of independent science in drafting national ambient air quality standards (NAAQS).

- May 21, 2009 – overturned Bush administration rules that gave other federal agencies with conflicts of interest greater control over EPA’s scientific database known as the Integrated Risk Information System (IRIS).

These are all very welcome developments and help to move beyond many of the problems of recent years. However, there are still several areas where Administrator Jackson could quickly adopt reforms that would strengthen the agency’s scientific integrity. Her first priorities should be:

- Drafting an agency-wide communications policy that ensures scientific openness at the EPA
- Providing the public with more information about meetings between agency officials and outside entities
- Routinely disclosing more information about the scientific basis for agency decisions.

We outline concrete recommendations to address these and other issues in the next section.

III. Short-term Recommendations

The many forms of political interference in EPA science revealed through our survey, our interviews, and other sources of information require a suite of solutions in four major arenas: increasing agency transparency, protecting EPA scientists, reforming its regulatory process and strengthening its scientific advisory system.

Making the EPA More Transparent

Decisions made behind closed doors threaten the integrity of EPA science and the agency’s ability to protect public health and the environment. Opening up these decisions to congressional and public scrutiny is an important step in revealing and ending the misuse of science.

Transparency in Meetings with Outside Entities

The EPA should institute a transparency policy for meetings with outside entities. This policy should require that the agency post on its website a complete record of all meetings with outside entities including for-profit and not-for-profit organizations, other agencies, and individuals (with the exception of meetings related to national security). Such a policy need not be burdensome, as participants could enter the required information directly into a database before the start of any meeting. The database should include the names and affiliations of meeting attendees as well as the date, time, location, and subject of the meeting.

Administrator Jackson has posted her daily schedule on the EPA website and has encouraged other top EPA officials to do the same. This is a promising start; however the website only displays the schedule for the current day and does not archive previous days, greatly reducing its usefulness to the public. The EPA should publicly archive this information and develop tools (such as email announcements or RSS feeds) for syndicating the administrator’s schedule to the public.

Media Policies

A UCS investigation found that the EPA does not have an agency-wide policy governing communication with the public and the media and relies on a patchwork of policies governing individual offices and laboratories. Furthermore, the policies we did uncover did not include provisions necessary to ensure free and open communication of scientific findings between scientists and researchers, and the media, policy makers, and the public.⁵

The EPA should implement an agency-wide media policy that incorporates the following principles:

- Scientists and researchers may freely express their personal views. Scientists and researchers, as any federal employees, have a right to express their personal views outside of a few narrow restrictions (such as releasing classified or proprietary information). Provided that a scientist makes an explicit disclaimer that he or she is speaking as a private citizen and is not seeking to represent official agency policy, he or she should be allowed to speak freely about his or her research and to offer his or her scientific opinions—even in situations where the research may be controversial or have implications for agency policy. Agency policies governing communication with the media should make this option clear and explicit to employees.
- Scientists and researchers have the right to review, amend, and comment publicly on the final version of any document or publication that significantly relies on their research, identifies them as an author or contributor, or purports to represent their scientific opinion. While editing by non-scientists is often necessary and useful, final review by scientific experts is essential to ensuring that accuracy has been maintained in the clearance process.
- Agency employees have clearly defined responsibilities in working with the media. Employees are responsible for the accuracy and integrity of their communications and should not represent the agency on issues of politics or policy without prior approval from the agency's public affairs officer (PAO). Employees are also responsible for working with the PAO to make significant research developments accessible and comprehensible to the public.
- PAOs have clearly defined roles, such as responding promptly to media inquiries and providing journalists and agency staff with accurate information, but not acting as “gatekeepers” of information. Scientists and researchers should not be required to obtain pre-approval from the PAO before responding to a media request about their research. However, requiring scientists and researchers to give the PAO prior notice of such interactions when possible, and to recap the interview afterward, is appropriate.
- If whistle-blower protection reforms are enacted by Congress, employees should be informed of those rights.
- Employees that leave federal service should not be required to sign non-disclosure agreements that restrict disclosure beyond classified or proprietary information.
- Public affairs staff should have a plan for disseminating the media policy to agency scientists and researchers and should conduct trainings in effective media communication that emphasize scientific openness. The official agency media policy should be publicly available on the EPA website.

Publication Policies

Peer review is a pillar of the scientific method; political review is not. While the broad direction of federal research is dictated by agency missions and funding priorities, federal scientists and researchers should be free to conduct that research and publish findings without fear of retaliation. The EPA's process for clearing information for outside publication has occasionally become a de facto policy review, and has delayed publication of papers despite disclaimers that the views are personal.

The EPA should review its peer-review and clearance policies to streamline excessive review and to adopt policies that ensure the free flow of scientific information.

- The EPA should affirm that scientific peer review is the appropriate standard for ensuring the quality of agency scientific information, and agencies should require that only qualified and non-conflicted scientists are involved in peer review of scientific publications.
- For non-official materials (e.g., papers submitted to scientific journals by agency employees), authors should have the option of bypassing any policy review and publishing the work with a disclaimer that it does not represent agency policy. A timely and transparent policy review is appropriate and recommended for official agency documents and reports.
- The EPA should set reasonable time limits for review and clearance of scientific publications and presentations. The supervisor or other reviewing official should provide to the author written clearance on the condition of specified changes being made, not later than 30 days after submission. If this deadline is not met, the author should be allowed to submit the article for publication or presentation with an appropriate disclaimer stating that the article does not represent agency views or policies.
- Draft versions of official agency documents or scientific reports should periodically be made available to the public. A draft version should be released if a document has been completed by agency staff yet held up in the policy or interagency review process for longer than six months.
- Scientific work done in an employee's personal time should not be required to be submitted to an internal review process, even if the employee identifies his or her employer, provided that the work includes an appropriate disclaimer.

Protecting EPA Scientists

The agency's scientists have a profound responsibility to the U.S. public. To fulfill that responsibility, they need reassurance that standing behind their scientific work will not open them to official or unofficial retaliation. Reps. Chris Van Hollen (D-MD) and Todd Platts (R-PA) have introduced a strong comprehensive whistleblower protection bill in the House. We strongly support that legislation, and urge that the Senate strengthen its whistleblower bill, S. 372, in line with the House reforms. But even before strong whistleblower protection legislation is enacted, we hope that Administrator Jackson now will send a strong message to agency managers that federal scientists who raise concerns or expose agency misconduct should not be retaliated against.

Reforming the Regulatory Process

The EPA was created to implement and enforce the nation's environmental laws, and it has developed the expertise, experience, processes, and policies needed to fulfill that charge. While the White House is responsible for overseeing these agencies, a balance should be struck between administration priorities and agency independence.

As was shown above, in recent years the OMB began reviewing the scientific underpinnings of EPA decisions; such political review of scientific information greatly damages the credibility of EPA decisions and should be banned. In its forthcoming executive order on regulatory review, the White House should explicitly respect the agency's reservoir of scientific and technical knowledge and restrain the OMB from reviewing the EPA's scientific and technical documents.

The EPA can also take steps to ensure that science is not manipulated in the regulatory process, specifically by expanding the information it shares with the public about its decisions. The EPA's rule-making dockets should contain:

- All scientific studies in an agency's possession related to a proposed regulation, regardless of whether the study was directly cited or whether it directly informed the final decision.
- All official interagency communications regarding rules under review, including those from the White House.
- Completed and peer-reviewed drafts of agency documents prepared by scientific or technical staff before they are subjected to White House or interagency review.

The EPA should also regularly publish a summary statement discussing the scientific basis for any regulatory decisions informed by science. The statement should be available in a timely fashion and should explain how officials made the final decision given the evidence. The statement should include (1) the rationale for the decision, including all scientific documents and data used to make it, (2) a minority report voicing any significant dissenting scientific evidence or opinions and an explanation of how the agency resolved such differences of opinion, and (3) identification by name of each official and employee who participated in the decision.

Ensuring Robust Scientific Input to the EPA's Decision Making

Agencies should take concrete steps to ensure that inappropriate criteria such as party affiliation and political opinions are never a part of the process for selecting members of scientific committees. Agencies should select members of advisory committees based solely on their experience and technical qualifications in the topic the committees will address.

The process for selecting advisory committee members should be made more transparent. Specifically, the EPA should:

- Publicly announce their intent to form a new scientific advisory committee, or to select a new member for an existing committee.
- Publish criteria for selecting committee members and should solicit nominations for committee membership.

- Call for public comment on the charge to the committee.

After the selection process is complete, the EPA should make basic information on committee members easily available to the public. This information should describe each member's qualifications and background, and disclose past employers and funding sources.

The EPA should specify which advisory committees are expressly scientific and which are designed to gather stakeholder input. The EPA should

- Clarify its criteria for appointing advisory committee members as “special government employees” (SGEs) or “representatives,” and ensure that the proper level of scrutiny of conflicts of interest occurs.⁶ (SGEs are subject to greater scrutiny than representatives, who are assumed to be stakeholders with special interests.)
- Work with the OGE to explicitly define the type and magnitude of financial ties that constitute a conflict of interest, and it should establish transparent guidelines on the degree to which a conflict of interest would disqualify nominees from participating in a particular committee.
- For committees whose mission is purely to provide objective scientific advice (as opposed to committees designed to gather input from stakeholders), committee members should be appointed as SGEs and should be entirely free of financial conflicts of interest.⁷
- Scientists and researchers with conflicts of interest could provide their expertise to scientific advisory committees, but the EPA should take steps to ensure that they do not have decision-making roles on those committees, and that their participation is limited to making presentations and responding to questions.
- Scientists who have taken public positions on issues should not be excluded from an advisory committee because of concerns about bias. Having a point of view does not preclude an objective assessment of the information presented to a committee. A scientist's membership in a scientific association should not be considered evidence of bias, even if that association has a stated policy agenda.

The EPA should review and strengthen how it uses the scientific expertise of its staff and external advisory committees to create policies—especially when scientific input is critical or required by law. Specifically, the next EPA administrator should work with the Clean Air Scientific Advisory Committee to improve the process for setting the National Ambient Air Quality Standards, to ensure that decision makers have access to the “best available science.”

IV. Strengthening EPA's Science Capacity for Future Challenges

The previous section outlined reforms that can be quickly accomplished by the EPA and the Obama administration. Looking ahead to future, there are a number of more far-reaching reforms that should be considered to better equip the EPA for the challenges of the twenty-first century. Many of these will require both Congressional action and thoughtful leadership from the executive branch. Addressing climate change is the most obvious environmental challenge facing the agency, but beyond that issue we discuss four general ways the scientific capacity of the EPA could be strengthened.

Elevating EPA to Cabinet-Level Agency

To prevent political interference in EPA science by other agencies, the EPA needs to be empowered to take the lead on cross-cutting environmental issues. A 2002 GAO report found merit in the idea of elevating the EPA to a cabinet-level agency. The report urged policy makers to consider that: “(1) environmental policy be given appropriate weight as it cuts across the domestic and foreign policies that other Cabinet departments implement and enforce and (2) the head of the agency is able to deal as an equal with his or her counterparts within the federal government and within the international community as well. Providing Cabinet status would also clarify the organization’s direct access to the President on environmental matters.”⁸

The GAO notes that the United States is “the only major industrial power without a Cabinet-level environmental organization” and that elevation to Cabinet status would “send the symbolic, but important, message to other federal departments and foreign nations that the United States is fully committed to solving the most serious and complex domestic and global environmental problems.”

These arguments will only grow more salient as the U.S. begins to consider actions to address global climate change – a problem that not only cuts across multiple cabinet agencies but is intrinsically an international issue. As such, we recommend that the president elevate the EPA to a cabinet-level agency, or establish a Department of the Environment.

Resources, Monitoring and Enforcement

Political interference in the collecting and reporting of environmental monitoring data has occasionally harmed the agency’s ability to fulfill its mission. EPA scientists and policy makers need access to accurate and up-to-date data in order to craft sound policy. Similarly, the EPA has a responsibility to provide environmental information to the public.

In addition to interference with the TRI and IRIS databases mentioned above, a 2008 report by the Natural Resources Defense Council identified numerous environmental and public health monitoring programs that had been reduced or eliminated in recent years. Two important EPA monitoring systems—one requiring factory farms to report the emission of air toxics and another tracking levels of perchlorate and MTBE in drinking water—have been dismantled entirely.⁹

Other programs saw cuts in budget or program responsibilities. For example, the network of sites for monitoring lead air pollution shrank from more than 900 in 1980 to little more than 200 in 2005. Today only two of the 27 worst sources of such pollution are within one mile of a monitoring site.¹⁰ Other reduced programs include site inspections and health assessments at Superfund sites and internal reviews performed by the Office of Environmental Justice. The report also identified areas where monitoring programs do not currently exist but are needed to advance the EPA’s goals, such as monitoring stormwater run-off and pesticide levels in urban watersheds.

Weak or inconsistent enforcement can undercut even the wisest government policies. In the first five years of the Bush administration, the EPA opened fewer criminal investigations, filed fewer

lawsuits, and levied smaller fines against polluters than in the final five years of the Clinton administration. The result of this drop in enforcement is that it “now costs less to pollute.”¹¹ The Bush administration also undermined pending EPA lawsuits by weakening regulations to allow aging power plants to emit more pollution—a policy that prompted the resignation of Bush’s first EPA Administrator, Christine Todd Whitman.¹²

Problems with monitoring and enforcement also need to be addressed by Congress and the president to ensure that the EPA is the robust environmental agency that our country needs. Congress should provide the EPA with resources commensurate with its growing responsibilities and should work to ensure that selective internal budget cuts are not used to punish inconvenient programs or offices. The president should commit to strong and consistent enforcement of the nation’s environmental laws.

From 2004 to 2009 the EPA’s budget declined by about 25 percent after adjusting for inflation. In President Obama’s FY 2010 budget, the EPA received \$10.5 billion—a 34 percent boost over 2009—including significant investments in water infrastructure, Superfund site cleanup and climate change monitoring. The EPA also received \$7.2 billion in funding through the American Recovery and Reinvestment Act. This is a significant investment in the EPA’s ability to address environmental problems in the coming years, and Congress should continue to ensure that EPA’s funding levels remain consistent with its responsibilities.

Structural Reforms to EPA Science

The EPA is an organization that necessarily houses both scientific and policy making functions. The interaction between these two functions can lead to political interference, but is also a source of strength and credibility for the organization. The ideal interaction between the science and policy wings of an agency can be thought of as a one-way membrane. It is desirable that scientific information and advice flow from scientists to policy makers, to facilitate the creation of fact-based policies. However, there ought to be strong limitations on how policy makers can affect agency scientists.

It is inevitable that agency priorities will guide the research work of agency scientists (government scientists—unlike their peers in academia—do not have free reign over their topics of study). Furthermore, policy makers utilize this expertise by identifying questions that they would like agency scientists to answer, often in an effort remove uncertainties about various policy options. But beyond these general priority-setting functions, there should be structural impediments to policy makers interfering in the work of agency scientists or external advisory committees.

A wall between scientists and policy makers can be weak or strong, and there are dangers associated with either extreme. In an overly “stovepiped” organization, policy makers may not even be aware of scientific analyses that could inform their work. Conversely, an agency that has completely integrated its scientific and policy making functions may allow the science to be influenced by the prevailing policy enthusiasms—either directly or indirectly.

At EPA there are many different models for distributing these science and policy making roles. For example, there is a significant mass of scientists in the Office of Research and Development (ORD) doing work that could potentially inform EPA's policies. However, other EPA program and regional offices also include significant scientific expertise alongside their policy making functions. The results of our survey show that political interference occurred across all sections of the EPA.

Addressing these structural issues may be crucial to ensuring independent science at the EPA. Because these issues are quite complicated, Congress should considering tasking the GAO or the National Academies with identifying metrics and addressing reforms to EPA's organizational structure that will promote scientific integrity and fact-based policy making.

V. The Role of Congress

Congressional Oversight

As we noted above, there are no silver bullets that will forever protect EPA science from political manipulation, and as a result, it remains vitally important that Congress continue its oversight of agency programs and activities.

The following are examples of decision points in the EPA's policy making processes that bear close scrutiny by Congressional watchdogs:

- Risk Assessment – The new rules governing the IRIS process are a good first step towards depoliticizing risk assessments, but because these scientific assessments can have considerable monetary consequences they will likely be a common target of political interference in the future.
- Cost-Benefit Analysis – Even seemingly minor political interference in required regulatory impact assessments can create the appearance of regulatory costs outweighing the benefits and provide justification for de-regulatory action.
- The Role of OMB – In the past, OMB has served as the gate-keeper for all federal regulations. Too often in recent years, OMB has tampered with the science underlying those regulations. The Obama administration is currently drafting an executive order that will govern how regulatory review is conducted; the interaction of this order with the regulatory priorities of the agencies will be an important subject of oversight.
- Federal Advisory Committees – There are a number of important reforms to the advisory committee system that should be implemented and Congress can play a crucial role in ensuring that federal agencies have plans for incorporating advisory committee expertise into their policy making processes.

Scientific Integrity in New Legislation

When considering the creation of the next generation of environmental and public health laws, the Congress should take steps to ensure those laws are resistant to political tampering. To further this goal, we are developing a check-list for legislators to ensure strong scientific integrity language is included in any pending legislation.

Scientific Integrity:

- ☐ How does this legislation protect science from being suppressed, distorted or manipulated?
- ☐ What mechanisms are in place to protect employees who report efforts to suppress or distort science?
- ☐ Are the metrics and benchmarks for policies based on the best available science?

Transparency:

- ☐ Are the scientific studies and other research transparent and publicly accessible?
- ☐ Are scientists' dissenting views parts of the public record?
- ☐ Are federal scientists to discuss their work with the media?
- ☐ Do federal scientists have the freedom to discuss their views, even when they disagree with policy, provided they issue a disclaimer that they are speaking as private individuals?
- ☐ Do federal scientists have the right to publish their work in peer-reviewed journals?
- ☐ Do federal scientists have the freedom to discuss their work with their colleagues at international conferences?

Rule making and policy making:

- ☐ How does the legislation incorporate scientific advisors and advisory committees into the policy process?
- ☐ What is the role of the other agencies and of the Office of Management and Budget in formulating policy?

Conflicts of interest:

- ☐ Does the legislation create any committees, councils or other entities?
- ☐ How will the selection process for members work?
- ☐ What information about potential conflicts has to be disclosed?
- ☐ Is there a limit on conflict of interest waivers an agency may grant to these participants?
- ☐ If it is a scientific advisory panel, are corporate scientists involved as stakeholders or special government employees (SGEs)?
- ☐ Are all the advisory councils and other entities that include the participation of non-governmental employees under the jurisdiction of the Federal Advisory Committee Act?
- ☐ Are members of these advisory councils permitted to belong to scientific societies, including those with legislative agendas?

Accountability

- ☐ When special interests lobby federal agencies, will that information be made public?
- ☐ Will their requests be part of the public record?
- ☐ Who will ensure that all action items and reports are created and published on time? How?

VI. Interference at the EPA

The U.S. Environmental Protection Agency (EPA) has the simple yet profound charge “to protect human health and the environment.” EPA scientists apply their expertise to protect the public from air and water pollution, clean up hazardous waste, and study emerging threats such as global warming. Because each year brings new and potentially toxic chemicals into our homes and workplaces, because air pollution still threatens our public health, and because environmental challenges are becoming more complex and global, a strong and capable EPA is more important than ever.

Yet challenges from industry lobbyists and some political leaders to the agency’s decisions have too often led to the suppression and distortion of the scientific findings underlying those decisions—to the detriment of both science and the health of our nation. While every regulatory agency must balance scientific findings with other considerations, policy makers need access to the highest-quality scientific information to make fully informed decisions.

Concern over this problem led the Union of Concerned Scientists (UCS) to investigate political interference in science at the EPA. In the summer of 2007, UCS, working with the Center for Survey Statistics and Methodology at Iowa State University, distributed a 44-question survey to nearly 5,500 EPA scientists, asking for information about political interference in their scientific work, the use of science in EPA decision making, barriers to communication, employee morale, and the agency’s effectiveness. UCS identified these scientists through EPA websites, consultations with current and former employees, and targeted Internet searches.

We received completed surveys from 1,586 scientists, for a response rate of 29 percent. These respondents represented every scientific program office at EPA headquarters, all 10 regional offices, and more than a dozen research laboratories across the country. Most respondents were agency veterans, with more than a decade of experience at the EPA. Beyond specific survey questions, more than 850 scientists also provided written comments in response to an open-ended essay question. To add to this information, UCS interviewed dozens of current and former EPA scientists.

The results of these investigations show an agency under siege from political pressures. On numerous issues—ranging from mercury pollution to groundwater contamination to climate change—political appointees of the George W. Bush administration have edited scientific documents, manipulated scientific assessments, and generally sought to undermine the science behind dozens of EPA regulations.

These findings highlight the need for strong reforms to protect EPA scientists, make agency decision making more transparent, and reduce politicization of the regulatory process.

Political Interference in Scientific Work

Large numbers of EPA scientists reported widespread and inappropriate interference by EPA political appointees, the White House, and other federal agencies in their scientific work:

- 889 scientists (60 percent of respondents¹³) personally experienced at least one incident of political interference during the past five years.
- Among EPA veterans (scientists with more than 10 years experience at the agency), 409 (43 percent) said interference occurred more often in the past five years than in the previous five-year period.

EPA scientists also reported personally experiencing specific forms of political interference, from the explicit to the subtle:

- 94 scientists (7 percent) had frequently or occasionally been “directed to inappropriately exclude or alter technical information from an EPA scientific document.”
- 191 scientists (16 percent) had personally experienced frequent or occasional “situations in which scientists have actively objected to, resigned from, or removed themselves from a project because of pressure to change scientific findings.”
- 232 scientists (18 percent) had personally experienced frequent or occasional “changes or edits during review that change the meaning of scientific findings.”
- 285 scientists (22 percent) had personally experienced frequent or occasional “selective or incomplete use of data to justify a specific regulatory outcome.”
- 153 scientists (13 percent) had personally experienced frequent or occasional “pressure to ignore impacts of a regulation on sensitive populations.”
- 299 scientists (24 percent) had personally experienced frequent or occasional “disappearance or unusual delay in the release of websites, press releases, reports, or other science-based materials.”
- 394 scientists (31 percent) had personally experienced frequent or occasional “statements by EPA officials that misrepresent scientists’ findings.”

Respondents indicated that political interference arose from both internal and external sources. In essay responses, nearly 100 scientists identified the White House Office of Management and Budget (OMB), which oversees the federal budget and coordinates all federal regulations, as the primary source of external interference.

Respondents reported widespread respect for their direct supervisors, but had fewer commendations for EPA’s senior leaders:

- 1,282 scientists (81 percent) respected the integrity and professionalism of their direct manager or supervisor, while 686 (43 percent) said the same about EPA’s senior leaders.
- A majority of respondents (906 scientists, or 59 percent) agreed that their direct supervisor stands behind scientific staff who express politically controversial opinions.

Rates of political interference varied widely among offices and divisions within the agency:

- The percentage of scientists reporting interference was highest in the program offices with regulatory duties, and at EPA headquarters. A total of 337 scientists in the program offices (68 percent), and 379 scientists at headquarters (69 percent), reported at least one incident of interference in the past five years.
- The percentage of scientists reporting interference was lower—although still significant—in the Office of Research and Development (ORD), the EPA’s main research arm. The ORD’s National Health and Environmental Effects Research Laboratory was notably freer of interference (39 percent) than any other EPA division, while its National Center for Environmental Assessment had the highest percentage of scientists reporting interference of all EPA divisions (84 percent).
- The percentages of scientists reporting interference in the 10 regional offices varied widely, from 44 percent (region 6) to 73 percent (region 9).

To place these results in context, we cite specific incidents of interference. For example, political appointees at the White House and in top positions at the EPA manipulated scientific findings and analyses regarding mercury pollution and climate change. These incidents involved pressure to change scientific methods and findings, direct editing of scientific documents by nonscientists, and delayed release of scientific reports.

A third case—involving interagency review of the EPA’s assessment of toxic chemicals—illustrates the growing ability of the OMB and other federal agencies to review and second-guess the work of the EPA’s scientific experts.

Barriers to the Free Communication of Science

The free communication of scientific results is a critical part of the scientific process. Despite statements by EPA leaders asserting that the agency supports scientific openness, many scientists report that it restricts free communication of the results of taxpayer-funded research:

- 783 scientists (51 percent) disagreed or strongly disagreed that EPA policies allow scientists to “speak freely to the news media about their findings.” Another 556 scientists (36 percent) had no opinion or were unsure. Only 197 scientists (13 percent) agreed that the EPA allows scientists to communicate freely with the media.
- 291 scientists (24 percent) disagreed or strongly disagreed that they are “allowed to publish work in peer-reviewed scientific journals regardless of whether it adheres to agency policies or positions.”

Beyond these restrictive policies, hundreds of scientists said they fear retaliation for speaking candidly about the EPA’s work. More scientists feared retaliation for speaking candidly inside the agency than outside it:

- 492 scientists (31 percent) disagreed or strongly disagreed that they could openly express concerns about the EPA's work *inside* the agency without fear of retaliation.
- 382 scientists (24 percent) disagreed or strongly disagreed that they could openly express concerns about the EPA's work *outside* the agency without fear of retaliation.

Interviews with current and former EPA scientists revealed new examples of problems in communicating scientific research. In two cases, EPA scientists were barred from presenting research on climate change at scientific conferences. Other scientists reported difficulties speaking with the media and obtaining EPA clearance to publish their findings in scientific journals.

Political interference in scientific work combined with barriers to the free communication of scientific findings affect the amount and quality of information the U.S. public receives.

Undermining the Role of Science in EPA Decision Making

Scientific information is the lifeblood of much of the EPA's work and the credibility of its decisions depends on the quality of its scientific work. A plurality of EPA scientists reported that the agency's regulatory policies are consistent with its scientific findings. However, a similar number felt that the EPA could do a better job of using the best judgment of its scientific staff:

- 745 scientists (48 percent) felt that the EPA's determinations and actions are frequently or always consistent with the scientific findings in agency documents and reports.
- 719 scientists (47 percent) felt that the EPA's determinations occasionally, seldom, or never make use of the best judgment of its scientific staff.

Hundreds of EPA scientists also felt that the agency only occasionally incorporates expert advice from advisory committees into policy decisions:

- 553 (36 percent) scientists felt that the agency occasionally, seldom, or never heeds advice from independent scientific advisory committees.

Recent changes in the EPA's process for setting the National Ambient Air Quality Standards provide one prominent example of how political considerations have trumped scientific expertise and sidelined EPA's scientific advisory committees.

Challenges to Agency Effectiveness

Beyond political interference in EPA science, several survey questions asked respondents about other factors that could impair their ability to do their jobs, and the ability of the agency as a whole to fulfill its mission. Large numbers of EPA scientists indicated that a lack of sufficient or appropriate resources was a serious issue in their office or division:

- 969 scientists (62 percent) disagreed or strongly disagreed that the "EPA division where I work has sufficient resources to adequately perform its mission of protecting human health and the environment."

- 555 scientists (36 percent) agreed or strongly agreed that the “recent changes and closures in the EPA library system have impaired my ability to do my job.” This opinion was especially prevalent among scientists in regions 5, 6, and 7, which had their libraries closed (86 of these scientists, or 48 percent, agreed).
- 574 scientists (41 percent) agreed or strongly agreed that “the trend toward contracting out scientific work is harming the effectiveness of my division.”

Survey questions also asked scientists about their job satisfaction, and the morale in their division:

- Respondents were twice as likely to report a decrease in job satisfaction over the past five years as to report an increase (670 versus 328 scientists).
- Opinions about workforce morale ranged widely. A total of 564 scientists (37 percent) said morale was fair, and 387 (25 percent) said morale was poor or extremely poor. A total of 570 scientists (37 percent) said morale was good or excellent.

Questions about the overall effectiveness of the EPA elicited a range of responses:

- Respondents were more likely to agree than disagree that the EPA was acting effectively to clean up environmental problems. A total of 812 scientists (52 percent) agreed that the EPA acts effectively to “clean up and/or mitigate existing pollution or environmental problems,” while 522 (33 percent) disagreed.
- 694 scientists (44 percent) agreed that the EPA acts effectively to “foster practices that prevent environmental degradation or adverse health effects before they occur,” while 629 scientists (40 percent) disagreed.
- Respondents were twice as likely to report a decrease in the effectiveness of their office or division (696 scientists, or 45 percent) as an increase (321 scientists, or 21 percent) over the past five years.
- Respondents were evenly split on whether the EPA is moving in the right direction. A total of 685 scientists (44 percent) disagreed that EPA is moving in the right direction, while 624 scientists (40 percent) agreed.

Case Study: OMB Interference in EPA Science

The White House Office of Management and Budget—especially its Office of Information and Regulatory Affairs (OIRA)—has played an increasingly powerful role in the creation, review, and approval of EPA decisions. Since the Reagan administration, the OMB has had the power to review and approve all government regulations, and to perform cost-benefit analyses. The OMB has used this power to force the EPA to modify or withdraw many rules and policies. For

example, in 2002 the OMB thwarted an EPA plan to declare a public health emergency over asbestos found in the insulation of millions of homes across America.¹⁴

The OMB has recently stepped beyond its role in reviewing the EPA's policies to review and manage the actual science underlying them. For example, under former director John Graham, OIRA sought to create overly restrictive guidelines for how federal agencies should conduct scientific assessments, such as risk analysis and peer review of research. The National Academies sharply criticized these guidelines as harmful to the mission of federal science and regulatory agencies, yet the OMB implemented them in modified form.¹⁵ OIRA also recently hired a handful of scientists to create in-house scientific expertise in an office traditionally dominated by economists.¹⁶ The agency then began, for the first time, to review and criticize the scientific basis for EPA decisions.

In 2007, OMB analysts manipulated scientific knowledge about mortality arising from exposure to ground-level ozone, in the EPA's regulatory impact assessment on changing the ambient air quality standard for ozone.¹⁷ The OMB has also interfered in the scientific basis for EPA policies on a 2004 rule regulating formaldehyde pollution from plywood plants,¹⁸ and a 2006 decision not to tighten the ambient air quality standard for fine particulate matter.

While the OMB's in-house expertise is undoubtedly helpful in interpreting scientific documents, it is inappropriate for the White House to second-guess the consensus of EPA specialists with decades of experience, and of advisory committees composed of internationally respected experts.

In their essays, nearly 100 EPA scientists explicitly identified the OMB's meddling in EPA decision making as a major hindrance to the agency's scientific integrity. Here is a small sample of responses to the question: "How could the integrity of scientific work produced by the EPA best be improved?"

Reviewing EPA Science

- "The unprecedented and unwarranted influence of the EPA's scientific work and findings by the White House and OMB must end."
- "OMB should stop interfering in EPA Science."
- "Get the White House, industry, and OMB out of what is supposed to be science-based decision making."
- "Also, for your next survey look at OMB. That is a true source of frustration. They truly interfere and want to stamp the White House Agenda over every document that is sent to them for review. Truly few realize the impact that they have. They have hired their own scientists and play the 'my scientist is better than yours' game. EPA has to accept a lot of **** from them to get any documents out."
- "OMB is increasingly interfering in earlier stages of projects (as opposed to review of draft documents and conclusions), sometimes insisting on methodologies that are less credible than those selected by EPA scientists."
- "Restrain [the] Office of Management and Budget. This Administration has not only watered down important rules protecting public health (I've see this happen firsthand with the PM 2.5 implementation rule), they have also altered internal procedures so that

scientific findings are accorded less weight. For example, the staff paper used previously in setting the NAAQS review has been eliminated.”

- “Get the OMB out of the business of reviewing science—they do not have adequate staff or adequately skilled staff to provide a scientific review of everything EPA does.”
- “The role of OMB in terms of policy review and coordination is a problem. Economists, or whatever they are, ‘playing’ scientist and/or engineer is troublesome and a real annoyance. They lack the basic credentials to make scientific or engineering judgments.”
- “Eliminate OMB and CEQ interference in EPA science, prevent political appointees from inserting themselves into controversial science issues.”
- “Get OMB and their inexperienced staff out of the review and decision-making process. They create time delays and have inappropriately stopped agency work that has been in progress for years due to their lack of scientific understanding.”
- “When I was first at EPA (1988), we did good work but it was sometimes ignored. That was frustrating, but at least the work was there. Now it seems like they want the scientific work to match the preordained conclusions. In case you are wondering, I think peer review is a good thing—I’ve seen people too invested in their beliefs to see what their data are really saying. But OMB, with John Graham at the helm, seemed intent on rendering EPA and every other regulatory agency (Food and Drug Administration, Occupational Safety and Health Administration, Mine Safety, Consumer Product Safety Commission...) utterly powerless with its ‘information quality guidelines.’ And although the administration chose Steve Johnson (a career scientist) as EPA administrator, it sent Graham henchman Marcus Peacock over to keep a close eye on EPA as deputy administrator.”
- “OMB and the White House have, in some cases, compromised the integrity of EPA rules and policies; their influence, largely hidden from the public and driven by industry lobbying, has decreased the stringency of proposed regulations for nonscientific, political reasons. Because the real reasons can’t be stated, the regulations contain a scientific rationale with little or no merit.”
- “Get OMB out of the risk assessment business. They aren’t qualified and do their best to compromise EPA’s process and drag out actions based on EPA’s determinations. Demanding that things be referred to [the National Academies], which inevitably slides any decision out 3–4 years, is one of OMB’s favorites.”

Lessening EPA Independence

- “Currently, OMB is allowed to force or make changes as they want, and rules are held hostage until this happens. OMB’s power needs to be checked as time after time they weaken rulemakings and policy decisions to favor industry.”
- “Stop allowing political employees and OMB to ‘regulate’ what EPA scientists do. Just let EPA scientists do their job; we are well qualified and can be trusted.”
- “In this administration, self-censorship is almost as powerful as political censorship. Options that OMB or the White House wouldn’t like aren’t even put forward.”
- “The current administrator is a puppet operated by CEQ and OMB.”

Transparency

- “Reduce the power of OMB over EPA scientific products. All communications between EPA and OMB during the development of agency technical products and actions should

be preserved for the public record. Stakeholders should demand an end to ‘paralysis by analysis’ strategies to prevent EPA from doing its job. In particular, implementation of OMB’s risk assessment guidelines would be disastrous.”

- “Require more transparency regarding involvement of OMB, CEQ, and other federal agencies when they comment [or] pressure EPA to make revisions in proposed and final actions.”
- “Over the last few years it has come to pass that OMB typically provides nonsensical political edits to every technical guidance coming out. (Not just the ones we hear about in the news, but ALL of them.) This is often done behind closed doors—after the document leaves the control of technical staff, OMB/White House request EPA management to make their requested political changes as EPA technical edits, before officially submitting to OMB for review.”
- “Integrity of scientific work is high. OMB has been ‘granted’ authority beyond what I understand has been traditional to impact final decisions. It is not clear who, how, or what initiated this change or increase in power, but it is absurd. A nonscientific body that does not have legal deference is forcing final decisions that may not be palatable to staff, and even political officials at EPA. Watch out for this on the upcoming ozone NAAQS decision. Solution: OMB must not step beyond its authority, and return to traditional review of regulations.”
- “Reduce influence of White House and OMB in decision making. Recognize [that] costs of new regulations are easy to estimate, while costs of improvements in health and the environment are much more difficult.”
- “Limit OMB review of, and influence on, content of scientific/engineering data and information (e.g., in rulemaking and guidance development). 2.) Require more transparency in OMB review process. 3.) If we are going to have to justify all environmental policy/regulations/guidance through cost-benefit, allow us to develop methodologies to quantify nonuse and ecological benefits.”
- “Control the power of OMB to a reasonable level—OMB does more to waste time and taxpayer dollars than any other organization in the government.”

¹ Union of Concerned Scientists (UCS). 2008. *Interference at the EPA: Science and Politics at the U.S. Environmental Protection Agency*. Read the full report and additional information online at <http://www.ucsusa.org/EPA/science>.

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³ Jackson, L. 2009b. Memorandum to all EPA employees, Subject: Transparency in EPA’s Operations. April 23. Washington, DC: U.S. Environmental Protection Agency. Online at <http://www.epa.gov/administrator/operationsmemo.html>.

⁴ Jackson, L. 2009c. Memorandum to all EPA employees, Subject: Scientific Integrity: Our Compass for Environmental Protection. May 9. Washington, DC: U.S. Environmental Protection Agency. Online at <http://www.epa.gov/administrator/scientificmemo.html>.

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⁶ Nazzaro, R.M. 2004. Additional Guidance Could Help Agencies Better Ensure Independence and Balance. Washington, DC: U.S. Online at <http://www.gao.gov/new.items/d04328.pdf>.

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Monographs, General Principles and Procedures. World Health Organization, January 23. Online at <http://monographs.iarc.fr/ENG/Preamble/currenta5participants0706.php>.

⁸ Stephenson, J. 2002. Observations on elevating the Environmental Protection Agency to cabinet status. Washington, DC: U.S. Government Accountability Office (GAO).

⁹ Rotkin-Ellman, M., Quirindongo, M., Sass, J. and Solomon, G. 2008. Deepest Cuts: Repairing Health Monitoring Programs Slashed Under the Bush Administration. Natural Resources Defense Council (NRDC). Online at <http://www.nrdc.org/health/deepestcuts/deepestcuts.pdf>.

¹⁰ U.S. Environmental Protection Agency (EPA). 2007. Review of the National Ambient Air Quality Standards for Lead: Policy Assessment of Scientific and Technical Information (OAQPS Staff Paper). Online at http://www.epa.gov/ttnnaaqs/standards/pb/data/20071101_pb_staff.pdf.

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¹² Eilperin, J. 2005. New rules could allow power plants to pollute more. *Washington Post*, August 31. Online at <http://www.washingtonpost.com/wp-dyn/content/article/2005/08/30/AR2005083001949.html>.

¹³ Unless otherwise stated, percentages reflect the share of respondents who answered a specific question.

¹⁴ Schneider, A. 2002. White House office blocked EPA's asbestos cleanup plan: Potential costs, bankruptcies, lawsuits may have been factors. *St. Louis Post-Dispatch*, December 29.

¹⁵ Union of Concerned Scientists (UCS). 2008b. *Federal science and the public good*. Cambridge, MA. Online at <http://www.ucsusa.org/federalscience>.

¹⁶ OMB Watch. 2003. OMB expands influence over scientific decisions. May 28. Washington, DC. Online at <http://www.ombwatch.org/node/1427>.

¹⁷ OMB Watch. 2007. Polluted logic: How EPA's ozone standard illustrates the flaws of cost-benefit analysis in regulatory decision making. December 5. Washington, DC. Online at <http://www.ombwatch.org/files/regs/PDFs/PollutedLogic.pdf>; Patton, V. 2007. Testimony before the Senate Committee on Environment and Public Works, Subcommittee on Clean Air and Nuclear Safety. July 11.

¹⁸ Miller, A.C. and T. Hamburger. 2004. EPA relied on industry for plywood plant pollution rule. *Los Angeles Times*, May 21.