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To: Scientific Integrity Task Force
White House Office of Science and Technology Policy
From: Public Employees for Environmental Responsibility (PEER)
Subject: Scientific Integrity Policies Lack Key Components
Date: July 28, 2021

As a legal and advocacy organization working to protect public employees who protect the environment, PEER submits the following recommendations on strengthening scientific integrity policies within the federal government. Federal agencies currently have policies that do little to prevent or remedy scientific misconduct and often make scientists who file scientific integrity complaints the targets of retaliation.

In addition to our comments below, we urge the Scientific Integrity Task Force to publicly ask the administration to provide adequate funding and oversight of scientific integrity policies to ensure these policies are adequately implemented. In many agencies, there is not even dedicated staff devoted to a scientific integrity program on a full-time basis. Further, several of these collateral duty Scientific Integrity Officers have little or no dedicated budget or staff. This state of affairs renders agency scientific integrity policies into little more than rhetorical devices. This central deficiency is compounded by the fact that, despite a wide variety of scientific policies, many policies lack key components altogether, while others have some important provisions but lack others.[1]

Below is a compendium of what current policies are lacking, what provisions need to be strengthened in existing policies, and the best practices that should be universalized in every federal policy.

I. Key Components Lacking in Their Entirety

The Scientific Integrity Task Force should recommend that each federal policy contain the following critical elements. Currently, none of the policies have these elements.

A. Protections for Scientists

In his 2009 memorandum directing the creation of scientific integrity policies, President Obama specified that agencies should provide additional protection for scientists:

[1] Donald Trump's Postponed Science Test - PEER.org

> "Each agency should adopt such additional procedures, including any appropriate whistleblower protections, as are necessary to ensure the integrity of scientific and technological information and processes…."[2]

Unfortunately, no agency adopted such additional procedures. That lapse was, in our view, primarily due to the guidance from the White House Office of Science & Technology Policy (OSTP) that all an agency needed to do was to reference existing whistleblower law:

> "Under these scientific integrity guidelines, [Agency or Department name] shall continue to comply with the requirements of the Whistleblower Protection Act of 1989…."[3]

Current law, however, only protects scientists who report violations. As PEER has repeatedly pointed out, scientists are often targeted for controversial research that exposes flaws in agency positions. Doing such work is not whistleblowing, yet it is important for, in President Obama's words, "the integrity of scientific…processes."

EPA's policy attempts to fill this gap but falls short of providing enforceable protections to scientists who report violations. EPA's policy purports to extend "whistleblower protections to all EPA employees who uncover or report allegations of scientific and research misconduct, or who express a differing scientific opinion, from retaliation or other punitive actions. . . ."[4]

This provision applies to scientists "who express a differing scientific opinion." However, this provision does not specify who enforces this protection and/or by what means. As such, it serves only as window-dressing rather than as a meaningful, enforceable safeguard.

To both be effective and meet the intent of President Obama's and Biden's directives, every scientific integrity policy should prohibit harassment of, or threats against, scientists due to the policy implications of their work. In an earlier submission, PEER recommended provisions agencies should adopt to protect scientists from reprisal for the content – as opposed to the quality – of their research and findings.[5]

B. Punishment for Violators

None of the policies specify penalties for violations by employees. As the Scientific Integrity Officer (SIO) at the Environmental Protection Agency (EPA) put it:

[2] 09_12_05_obama_science_integrity_memo.pdf (peer.org)
[3] Whistleblower Protections for Scientists Sidelined - PEER.org
[4] See EPA Policy at IV A3c
[5] Scientific Misconduct Carries No Penalties - PEER.org

> "We're not playing a blame game. The way our scientific integrity policy is written is that specific disciplinary accountability is not in our lane. So, our work is to figure out what happened and safeguard the science." [6]

A scientific integrity policy that carries no penalty for those violating the policy provides no safeguards for the science and sends the signal that the policy can be ignored with impunity. In a prior submission, PEER detailed how to fill this fundamental gap.[7]

C. Sanctions for Political Appointees

Although the 2009 Obama memorandum targeted political manipulation or suppression of science, none of the policies provide any specified sanctions for political appointees who violate these policies. Indeed, political appointees may, by the very nature of their position, be the largest source of pressure for political manipulation of science. Yet, some policies, such as the Department of Interior's, do not address political appointees at all.[8] Even policies that reference political appointees, such as EPA's, do not specify any steps for addressing validated allegations involving political appointees.

PEER urges that findings regarding policy violations by a political appointee be publicly reported to that official's appointing authority and/or the White House.

D. Review of Agency Decisions Not to Investigate

A principal purpose of these scientific integrity policies, in the words of President Biden's memorandum, is "Restoring Trust" by the public in the quality of government science. Yet, all of the policies allow the agencies to decline to investigate misconduct allegations without any outside review of that decision. This lapse enables agencies to cover up scientific fraud under the cover of their scientific integrity policies.[9]

Restoring public trust would require two measures: 1) An independent review of any decision not to investigate an allegation that specifies violations of the scientific integrity policy; and 2) That review be publicly posted so that the public can be assured the decision not to investigate was based on the merits (or the lack thereof) of the allegation.

E. Independence of Scientific Integrity Officers

In many agencies, these officials perform this function as a collateral duty to their main job. This situation puts Scientific Integrity Officers at risk of reprisal for performing this job well. In some cases, the SIO may be reporting to, either directly or indirectly, an official accused of scientific misconduct. In one case, PEER represented an SIO at the Bureau of Reclamation who was fired after he filed a scientific integrity complaint against the Secretary of Interior's press office for the slanted way it summarized the science on a complex and controversial issue.[10]

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[6] The Fight to Clean Up the EPA (theintercept.com)
[7] Scientific Misconduct Carries No Penalties - PEER.org
[8] How Interior Sabotaged Its Scientific Integrity Policy - PEER.org
[9] See examples detailed in https://www.peer.org/wp-content/uploads/2021/05/5_27_21-Memo-to-Scientific-Integrity-Task-Force.pdf
[10] Purged Science Advisor Tests Interior's Integrity Policies - PEER.org

PEER urges that SIOs be selected from retired annuitants or academics and given fixed terms to help secure some modicum of independence from the chain of command they are being asked to scrutinize and, in some circumstances, investigate.

II. Provisions That Must Be Strengthened

Some policies contain provisions that should be strengthened.

A. Investigative Protocols

Some agencies, such as the National Oceanic and Atmospheric Administration (NOAA), have policies that detail how non-frivolous allegations should be investigated. By contrast, EPA has no protocol at all. Nor is it even clear whether and how allegations at EPA are investigated at all, as that agency has filed no report of activities since 2018.

In addition, some agencies, such as the Interior Department, task "Bureau heads" with appointing "coordinating managers" to oversee inquiries.[11] This feature can undermine the independence of inquiries, as the Bureau Director may have a professional interest in ensuring that allegations are not upheld.

Every agency should have protocols for the investigation of serious complaints by experts who are independent of the agency chain of command. Moreover, these protocols should be somewhat uniform as there is no compelling rationale for the wide variation in how investigations are conducted from agency to agency. In addition, a more coordinated government-wide process would make it easier to assemble panels of independent experts from a wider variety of specialties.

B. Correction of Lapses and Violations

Most of the policies lack provisions requiring correction of the record when lapses in scientific integrity are found. While many policies reference the Information Quality Act (Public Law 106-554, Section 515), which has a process for correcting the record, none incorporate that record correction process into their scientific integrity policies. Nor do these latter policies require public notice of retraction when an error has been determined.

Some agencies, such as the U.S. Geological Survey, take the position that a scientific integrity violation requires an intentional act and will not recognize, let alone redress, losses of scientific integrity committed through negligence, no matter how gross.[12]

To restore public trust, all agency policies should require correction of scientific integrity lapses – whether intentional or negligent – followed by public notice of the same.

C. Transparency of Records

Today, federal agencies have greater discretion to withhold scientific research from public view than ever before. This state of affairs reflects the confluence of two trends: 1) During the Trump era, to reduce their legal vulnerability, federal agencies purged

[11] See USDOI 305DM3 §3.6E

[12] See Federal Lab Biosafety Whistleblower Targeted - PEER.org and PEERMail | Something Extraordinary – A Whistleblower Wins - PEER.org

administrative records to remove evidence that did not support the agency decision or revealed internal dissent or controversy; [13] and 2) A recent U.S. Supreme Court decision strengthened the ability of agencies to withhold scientific facts and findings by keeping them in draft form.[14]

These strictures run counter to the scientific integrity precepts put forth by both Presidents Obama and Biden. Moreover, there is no cogent reason why agency records transparency practices should vary from agency to agency. Further, as PEER has previously argued, the current agency-by-agency approach employed by this Task Force undercuts transparency. Instead, the White House should issue a single govern-wide requirement that all records be included in official administrative records and that scientific research and findings should not be withheld from release under the pre-decisional exemption in the Freedom of Information Act.[15]

D. Conflict of Interest

Some agency policies have strong prohibitions against conflicts of interest. NOAA, for example, defines a conflict to be:

> "Any financial, personal, professional, political, legal or other non-financial interest, which may influence an individual's scientific activities or judgment by:
>
> a. Impairing the individual's objectivity;
>
> b. Creating an unfair competitive advantage for any person or organization; or
>
> c. Creating the appearance of either item listed above."[16]

Some policies lack this prohibition altogether. One agency, Interior, had a similar prohibition but rewrote and substantially narrowed this provision in late 2014 without any public notice or explanation. Interior's current conflict of interest definition reads:

> "Conflict of Interest. Any personal, professional, financial, or other interests of those covered by this policy and/or their immediate family members that is prohibited by an applicable law or policy…."[17]

Missing from this newer definition are specific references that encompass –

- The appearance of a conflict, no matter how blatant;
- Favoritism for someone who is not a family member, such as a romantic partner;
- An impairment of objectivity caused by a previous publicly stated position on a question that is about to be explored;
- Cronyism; and
- Creating an unfair advantage for a favored associate.

[13] Alternative Facts on the Rise in Federal Decision Records - PEER.org
[14] BLOG | Supreme Court FOIA Decision and Official Candor - PEER.org
[15] Scientific Transparency Policies Should Be Uniform - PEER.org
[16] NOAA Administrative Order 202-735D-2 §3.02
[17] USDOI 305DM3 § 3.5 E

Moreover, by limiting conflict to a violation of a pre-existing rule, this definition removes any new or more rigorous element, leaving issues of conflict to be hashed out under pre-existing ethics processes.

These types of definitions should not differ from agency to agency, and they should be explicit. PEER would urge that all agencies adopt the broad conflict provision NOAA has.

III. Best Practices That Should be Universalized

Some agency policies contain provisions that should be candidates for government-wide adoption, including the following:

A. Right to Publish

NOAA's scientific integrity policy explicitly encourages its scientists "to engage with their peers in academic, industry, governmental, and non-governmental organizations by … publishing their work in appropriate outlets," NOAA's policy also provides that its scientists "are free to present viewpoints, for example about policy or management matters that extend beyond their scientific findings to incorporate their expert or personal opinions." In such instances, NOAA simply requires its scientists to state clearly that they are presenting their individual opinion, not those of the agency.[18]

Unfortunately, this admirable policy is constrained by a contradictory rule issued by NOAA's parent Department of Commerce. The Bush Commerce Department issued an administrative order governing "Public Communications" which repealed a more liberal "open science" policy adopted by NOAA in 2006. That order, which remains in effect, forbids scientists from disclosing information that has not been approved by the chain of command, even if they prepare it and deliver it on their own time as private citizens.[19]

PEER would urge that the Commerce "Public Communications" order be rescinded and that the unalloyed NOAA policy of encouraging publication by scientists be universally adopted by federal agencies.

B. Differing Professional Opinions

We also commend the Nuclear Regulatory Commission (NRC) procedures and timeline to resolve scientific disputes in its Differing Professional Opinions (DPO) Program Handbook.[20] The DPO receives review by an *ad hoc* panel, and the NRC policy provides confidentiality protections for submitters. A detailed and well-thought-out process such as this one would assist agencies in dealing with scientific disputes in a constructive manner that promotes scientific integrity.

C. Delay of Publication

[18] NOAA Administrative Order 202-735D.2 §5
[19] Lift Gag Order Muzzling NOAA Scientists - PEER.org
[20] Management Directive 10.159, "NRC Differing Professional Opinion Program."

In addition, we commend the EPA rule on the suppression of scientific findings, which "prohibits all EPA employees, including scientists, managers, and other Agency leadership, from suppressing, altering, or otherwise impeding the timely release of scientific findings or conclusions."[21] (emphasis added). Especially in matters where regulatory decisions can be affected by the delay of scientific information, such delays can be the functional equivalent of outright suppression. For that reason, impeding the timely release of scientific data should be considered a form of suppression.

Concluding Comments

In closing, three overarching comments are in order:

1. ***Truly Protecting Scientific Integrity Requires a Statute***

The very nature of scientific integrity policies is reliance upon the Executive Branch policing itself. History has demonstrated that to be a problematic proposition at best.

A basic challenge is that federal scientists and their work products presently have scant legal protection.[22] To remedy this deficiency, the White House should ask Congress to statutorily protect scientists by classifying participation in the peer review process, whether as an author or reviewer, as a protected activity enforced in the same way and through the same legal processes employed by the federal Whistleblower Protection Act.[23]

2. ***Agency-by-Agency Variation Should Be Kept to a Minimum***

No purpose is served by having different definitions of key terms or variations in transparency or other basic rules undergirding scientific integrity principles. Different rules can function to lessen protections.[24] Ideally, the federal government should have one set of rules governing these issues.

3. ***Task Force Hampered by Lack of Independence***

Many of the Task Force members have been acting as SIO's for their agencies. As such, the Task Force is being asked to evaluate the performance of its own members in finalizing its "Review," as mandated by Section 2 of President Biden's memorandum.

Just as most scientific integrity policies require that those who review allegations of misconduct not be involved with the matters they are reviewing, so too the Task Force should ask agency officials responsible for the administration of these policies not to participate in the assessment of that administration.

Finally, the Task Force should consult with scientists who have reported allegations, have been members of review panels, and former officials who have direct experience. Otherwise, the Task Force findings will be burdened by the fact that many of its members will benefit from a Review that glosses over past failures.

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[21] EPA Policy at IV A1d

[22] https://fisheries.org/2017/06/emerging-law-of-scientific-integrity-a-bumpy-birth/

[23] See Federal Scientists Face Official Barriers in Publishing - PEER.org

[24] See Scientific Transparency Policies Should Be Uniform - PEER.org