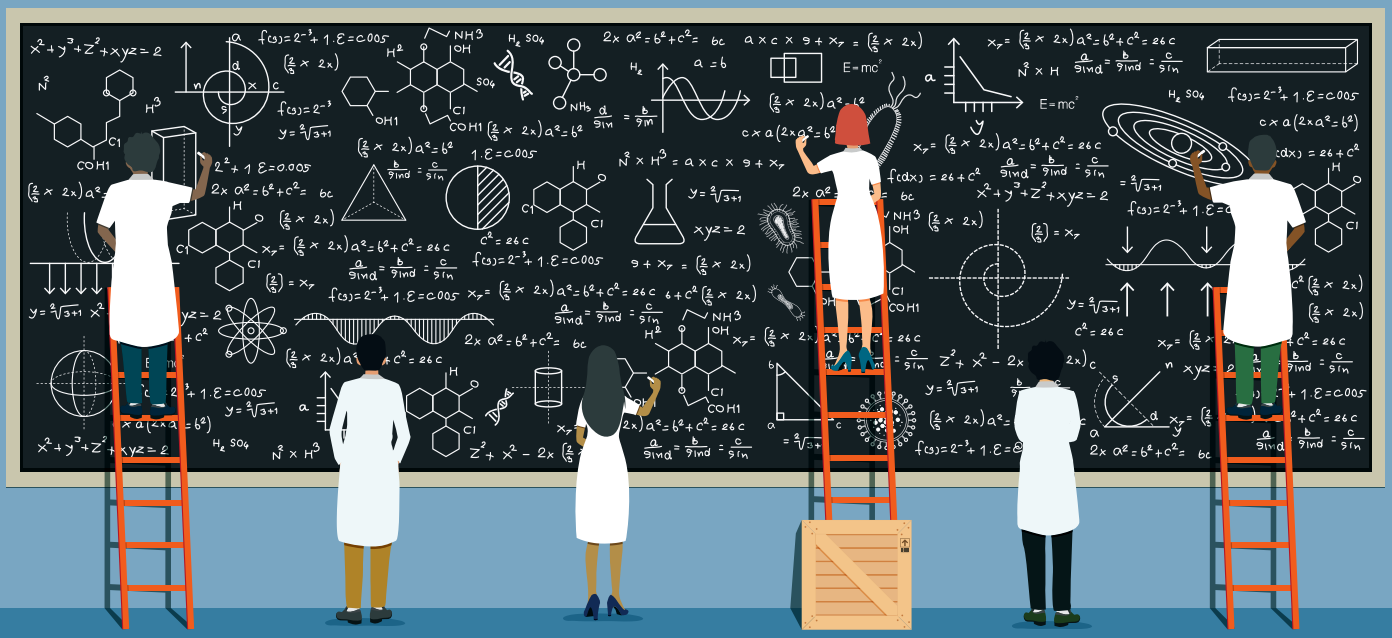

A QUICK GUIDE

Scientific Integrity Policies at Key Federal Agencies

What federal scientists should know and do if they sense political interference with their research.

Brought to you by
the Climate Science
Legal Defense Fund

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Introduction

This guide covers the scientific integrity policies of nine federal agencies. It will help researchers employed by these agencies understand and navigate the process of filing a scientific integrity complaint.

Scientific Integrity at Federal Agencies

Scientific integrity principles are indispensable to the missions and the functions of science-related agencies in the United States. Their ability to conduct sound, unbiased scientific research is essential to maintaining public trust in these agencies.

Following a 2009 memorandum issued by President Obama and a 2010 memorandum issued by the White House Office of Science and Technology Policy, many agencies adopted formal scientific integrity policies intended to ensure that the science these agencies rely on for decision-making is free from fraud, fabrication, and plagiarism.

Scientific integrity policies help ensure that the work of agency scientists is communicated in a transparent and timely manner to the public and decision-makers. The policies can protect federal scientists from censorship and intimidation, and from having their work altered or ignored for political reasons.

The most effective policies clarify how individual agencies interpret scientific integrity. In many cases, a policy will describe how a scientist should report a loss of scientific integrity, how the agency will investigate a claim, and the rights of both a complainant and a person alleged to have committed a violation.

For agency scientists, understanding these principles—how to abide by them and what to do if they are violated—is a core job function.

Fostering Integrity in Research

Pointing out a scientific integrity issue can be a scary thing for a scientist, in part because it may raise concerns about retaliation and other repercussions. And navigating agencies' processes for dealing with scientific integrity issues can be complicated and confusing, although some agencies are more transparent than others in how they handle complaints.

Despite this, scientists have successfully used scientific integrity policies to address a range of issues. And even where the policies fail, engaging with the process can move an agency toward a stronger culture of scientific integrity. The process can also establish a record of how and why a policy failed to provide the protections it should, which can lay the groundwork for stronger protections for scientific integrity.

For these reasons, federal scientists must understand their agencies' scientific integrity policies. Doing so will help to ensure that transparent, sound science informs the federal policymaking that affects human and environmental health.

Best Practices for Maintaining Scientific Integrity

This compilation has information about the scientific integrity policies of nine agencies and best practices for all researchers. For example, a scientist who senses a potential scientific integrity issue brewing should take detailed notes—using his or her own time and resources—about what they've witnessed. This record of dates and events is a powerful tool to support a potential claim. Make a Note to the Record, a resource authored by CSLDF and like-minded organizations, has more information on this topic.

We urge scientists to be strategic rather than reactive or emotional when filing or responding to a scientific integrity complaint. It's also important to remember that agency attorneys and scientific integrity officials can be helpful resources. But they represent the interests of the agency, which may not align with those of an agency scientist. And while it may be useful for researchers to discuss a scientific integrity issue with a few trusted colleagues to gauge whether others see things the way they do, this must be done strategically.

It is also essential to understand that the policies differ in their confidentiality protections during an investigation of a loss of scientific integrity. For these reasons, we strongly encourage researchers to contact us (or another independent attorney) for advice.

Our attorneys work with researchers accused of violating scientific integrity, and those who believe scientific integrity was violated; they also file scientific integrity complaints on behalf of federal scientists. Our attorneys can advise scientists who are employed by agencies such as the Department of Energy, whose policy has little specific information about the process of filing a scientific integrity or research misconduct complaint.

Researchers who need help navigating scientific integrity issues can request a free, confidential consultation with one of our attorneys; write to lawyer@csldf.org to set up a meeting.

While this guide helps scientists understand many agencies' scientific integrity policies, it is not a substitute for legal advice regarding a particular situation. The Climate Science Legal Defense Fund offers free, confidential consultations to scientists with questions about scientific integrity.

Contact us at
(646) 801-0853

Or send an email to
lawyer@csldf.org

	AGENCY NAME					
Scientific Integrity Policies	**CDC**	**DHS**	**DOD**	**DOE**	**DOI**	**DOS**
Overall organization and user-friendliness	Fair	Good	Fair	Fair	Good	Very Good
What the policy governs	Fair	Fair	Fair	Fair	Very Good	Good
Research misconduct	Fair	Addressed in Separate Policy	Addressed in Separate Policy	N/A	Very Good	N/A
Conflict of interest	Good	Fair	Fair	Fair	Fair	Fair
Political interference	N/A	Very Good	Fair	Good	Fair	Very Good
Threats and intimidation	N/A	N/A	N/A	Fair	N/A	N/A
Use of science in agency decision-making	N/A	Very Good	Good	N/A	Fair	Very Good
Science communication	Fair	Very Good	Good	Good	Fair	Good
Timeliness of communications	Fair	N/A	Addressed in Separate Policy	Good	Good	N/A
Social media communications	Addressed in Separate Policy	N/A	N/A	Very Good	Addressed in Separate Policy	Addressed in Separate Policy
Testifying before Congress	N/A	N/A	N/A	N/A	N/A	N/A
Right of scientists to review and correct agency communications	N/A	N/A	N/A	Very Good	N/A	N/A**
Publishing and lecturing	Very Good	Very Good	Good	Good	N/A	Good
Scientific societies	Very Good	Very Good	Good	Good	Very Good	Good
Opinion statements	N/A	N/A	Addressed in Separate Policy	Very Good/Good	N/A	Good
Hiring practices	Good	Fair	Fair	Fair	N/A	Fair
Federal Advisory Committees	Good	Fair	Good	Fair	N/A	Addressed in Separate Policy
Whistleblower protections	Fair	Fair	Fair	Fair	Fair	Fair
Who the policy governs	Fair	Fair	Good	Fair	Very Good	Very Good
Complaint investigation procedure	Good*	Good	N/A	N/A	Very Good	N/A
Who can make a complaint	Fair	Very Good	N/A	N/A	Very Good	N/A
Rights of complainant and respondent	Fair	Fair	N/A	N/A	Good	N/A
Adjudication process	Fair	Fair	N/A	N/A	Fair	N/A
Are remedies for breach of scientific integrity listed? [Y/N]	Yes	No	No	No	No	N/A
Representative cases published? [Y/N]	No	No	No	No	Yes	No

KEY TO RANKINGS

Very Good: The policy addresses the topic comprehensively, and the language is tailored to the agency and its scientific work.

Good: The policy uses more than basic language on the topic. It is tailored to the agency and its scientific work, but it may not cover every issue.

Fair: The policy addresses this topic only with token or basic language, with little or no tailoring to the agency and its scientific work.

N/A (Not Addressed): The policy is silent on this topic.

Addressed in a Separate Policy: The agency does not cover the topic in its scientific integrity policy or mention that a separate policy addresses it. However, the agency has a policy that deals with the subject.

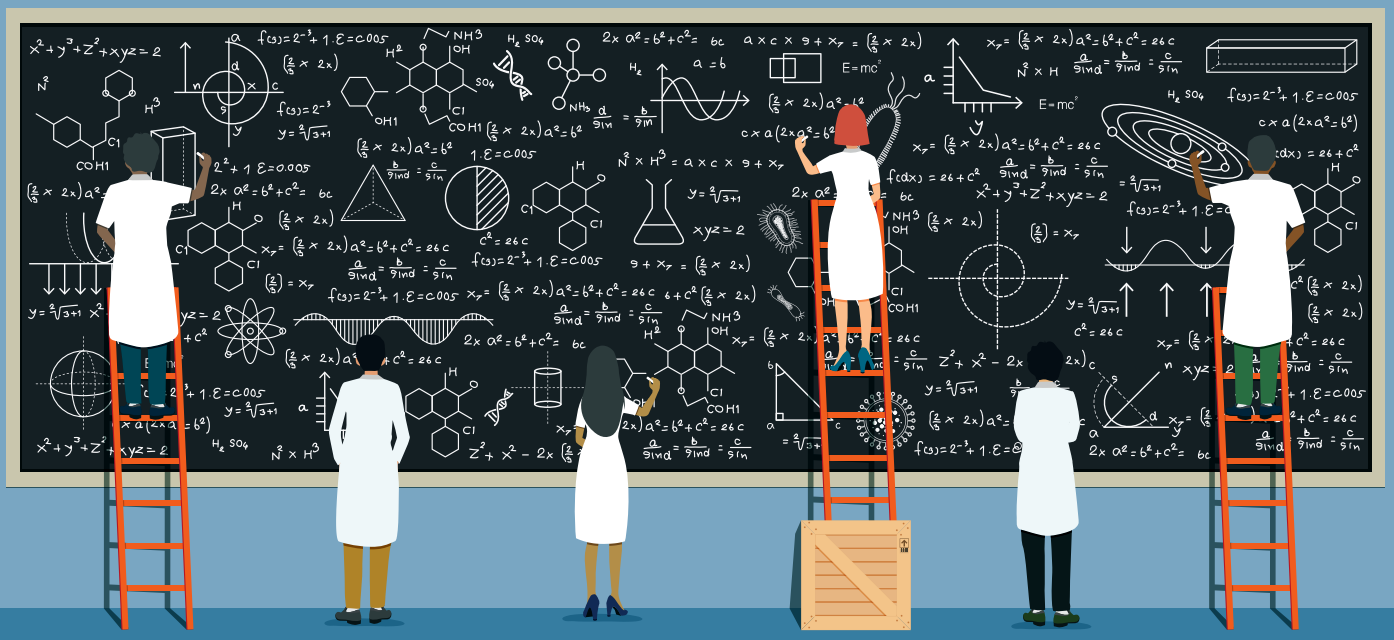
	AGENCY NAME					
Scientific Integrity Policies	**EPA**	**NASA**	**NIH**	**NOAA**	**NSF**	**USDA**
Overall organization and user-friendliness	Good	Fair	Very Good	Very Good/Good	Fair	Good
What the policy governs	Fair	Fair	Good	Very Good	Fair	Very Good
Research misconduct	Good	Good	Very Good	Very Good	Addressed in Separate Policy	Good
Conflict of interest	Fair	Fair	Very Good	Fair	Fair	Fair
Political interference	Good	Fair	N/A	Very Good	Fair	Good
Threats and intimidation	Good	N/A	N/A	Very Good	N/A	N/A
Use of science in agency decision-making	Very Good	Fair	Very Good	Good	N/A	Very Good
Science communication	Good	Fair	Very Good	Good	Good	Good
Timeliness of communications	Good	N/A	Good	Good	N/A	N/A
Social media communications	Addressed in Separate Policy	N/A	Addressed in Separate Policy	Fair	Addressed in Separate Policy	Fair
Testifying before Congress	Fair	N/A	N/A	Fair	N/A	N/A
Right of scientists to review and correct agency communications	Very Good	N/A	N/A	Good	N/A	N/A
Publishing and lecturing	Good	Good	Very Good	Good	Good	Fair
Scientific societies	Good	Good	N/A	Good	Good	Fair
Opinion statements	Very Good	Fair	Fair	Good	N/A	Good
Hiring practices	Fair	Fair	Addressed in Separate Policy	Fair	Fair	Fair
Federal Advisory Committees	Very Good	Very Good	Very Good	Very Good	Very Good	Very Good
Whistleblower protections	Good	Good	Good	Fair	Fair	Fair
Who the policy governs	Good	Fair	Fair	Good	Good	Good
Complaint investigation procedure	Fair*	Good*	Good*	Very Good	Good*	Very Good
Who can make a complaint	Good	Fair	N/A	Very Good	N/A	Very Good
Rights of complainant and respondent	Fair	Fair	Good	Good	Good	Very Good
Adjudication process	N/A	Fair	Good	Very Good	Good	Very Good
Are remedies for breach of scientific integrity listed? [Y/N]	Yes	Yes	Yes	No	Yes	Yes
Representative cases published? [Y/N]	Yes	No	Yes	Yes	Yes	Yes

The ratings in the first category of the chart apply to the overall organization of the policy and how well-organized and user-friendly it is: very good and user-friendly; good and somewhat user-friendly; and fair and not user-friendly.

Note: A grade of very good/good applies to some categories. In these cases, the provision is generally comprehensive and applicable to the work of the agency in question. But it falls short in a few areas, which prevent it from receiving a rating of "very good."

*These agency policies do not specify procedures for investigating scientific integrity complaints. For this guide, we evaluated the procedures for research misconduct since these provide the closest analog to how the agency might handle a scientific integrity complaint.

** While the right of DOS scientists to review agency communications is N/A (not addressed), the policy does provide federal scientists at other agencies the opportunity to review DOS documents that reference their work.



A QUICK GUIDE TO THE SCIENTIFIC INTEGRITY POLICY AT THE

Centers for Disease Control and Prevention (CDC)

CDC Table of Contents

1 SUMMARY

The CDC refers to itself as "the nation's public health agency." Most information about scientific integrity at the CDC is in the CDC Guidance on Scientific Integrity (referred to in this guide as the guidance), which states that the CDC's primary responsibility is providing scientific evidence for developing policies, guidelines, and recommendations (Guidance at 2). According to the CDC, this guidance is designed to support four key areas of scientific integrity: 1) foundations of scientific integrity in government, 2) public communications, 3) use of Federal Advisory Committees, and 4) professional development of government scientists and engineers (Guidance at 1).

The CDC guidance covers traditional research misconduct and includes concepts such as open communication with the public and the professional development of scientists. However, unlike some scientific agencies, the CDC guidance does not address behaviors that can threaten scientific integrity such as political interference, threats, censorship, and suppression.

The CDC doesn't have specific policies or procedures for the filing or the handling of complaints regarding a loss of scientific integrity. There are procedures for dealing with complaints of research misconduct, but these are contained in a separate policy and address only a small portion of what the CDC guidance purports to cover. The CDC appears to have a Research Integrity Officer, but it is not clear based on publicly available information that the CDC has appointed a Scientific Integrity Officer.

The CDC's guidance is dense and not very user-friendly in comparison to the scientific integrity policies of other agencies. Some relevant policies and procedures, such as those that deal with the handling of research misconduct complaints, are located in separate documents. This arrangement places an additional burden on scientists, who must navigate multiple complex documents to fully understand the policies.

2 WHAT DOES THE POLICY GOVERN?

Research Misconduct

The CDC guidance does not have provisions on research misconduct. Instead it refers to policies on research misconduct described in the Code of Federal Regulations (CFR) (Guidance at 4) which defines research misconduct as "fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results" (42 CFR § 93.103).

The guidance refers to the CDC Policy for Responding to Allegations of Research Misconduct (referred to in this guide as "the policy on research misconduct" and "policy"), which says employees have an obligation to report research misconduct to the Research Integrity Officer. Employees must also cooperate in the review of allegations as well as any subsequent inquiries and investigations (Guidance at 4). The relevant provisions in the CFR explain that research misconduct does not include honest errors or differences of opinion.

Conflict of Interest

The guidance prohibits CDC employees from having financial conflicts of interests and undertaking actions that create the appearance of ethical or legal violations (Guidance at 4). This section also points to multiple external documents that relate to conflicts of interest or ethical issues, including the Standards of Ethical Conduct for Employees of the Executive Branch and the Confidential Financial Disclosure System Policy.

The CDC guidance mentions conflicts of interest in a few other areas. With regard to authorship and peer review, the guidance states that the existence or appearance of a conflict of interest can compromise the CDC's work, and it requires peer reviewers to provide written assurance that they do not have actual or perceived conflicts of interest (Guidance at 7). The guidance also mentions conflicts of interest in the context of advisory committees, stating that in the case where a committee member's conflict of interest is waived, it will make that waiver available to the public on request (Guidance at 18).

Political Interference

The guidance does not explicitly address political interference with research. In discussing research misconduct, the guidance does say that "in instances when the observed conduct does not fall under the definition of research misconduct but may lead to loss of integrity, actions should still be taken to investigate and prevent such loss of scientific integrity" (Guidance at 4).

This language alludes to the possibility that political interference with research, such as asking researchers to alter their work or censoring research for political reasons, may result in a loss of scientific integrity without meeting the traditional definition of research misconduct. Yet it is vague, and not nearly as comprehensive as the policies of some other agencies that explicitly make political interference with research a violation of scientific integrity.

Threats and Intimidation

The guidance similarly does not explicitly address threatening or intimidating researchers. The language referenced in the section above, which suggests that actions that do not meet the definition of research misconduct can still lead to a loss of scientific integrity, may also potentially be relevant in instances where researchers are threatened or intimidated. However, as discussed in the preceding section, the guidance is vague on this point and leaves researchers with very little clarity as to whether the agency would consider such behaviors violations of scientific integrity.

Use of Science in Agency Decision-Making

The guidance does not address how science should be used in agency decision-making aside from broad language indicating that the CDC must emphasize scientific evidence in developing its policies and similar.

Science Communication

The guidance repeatedly stresses that scientific information should be freely shared (Guidance at 8, 10). This indicates that scientists' ability to communicate their work is an integral part of scientific integrity at the CDC.

Timeliness: The guidance states that the CDC is "committed to the timely release and availability of information to ensure the health of the public" (Guidance at 3).

Press: The guidance contains sections on responding to media inquiries and scientists speaking on their official work without interference, including a broad statement that "CDC employees may, consistent with this policy, speak to members of the press about their work" (Guidance at 15).

However, much of the language is these sections is somewhat constrained. For example, according to the guidance, CDC media relations staff are expected to be honest and accurate, respond promptly to media requests, and promote the free flow of scientific and technical information. Yet the same rights and responsibilities are not extended to CDC scientists. Similarly, the guidance gives speakers at public events the right to conduct media interviews without interference from CDC media relations staff, but it does not extend this right to CDC scientists if they are not presenting at a public event.

The guidance refers to additional CDC polices which may contain relevant information on the communication of scientific information: Clearance of Information Products Disseminated Outside CDC for Public Use and Release of Information to News Media (for media relations staff). Neither appears to be publicly available at the time of this publication.

Social media: The guidance does not address social media use, but the CDC has a separate social media policy.

Testifying before Congress: While the policy does not explicitly state that agency scientists have a right to testify before Congress, that right is protected elsewhere in federal law.

Right of scientists to review and/or correct agency communications: The guidance does not address scientists' right to review or correct agency communications or publications referencing their work or attributing them as authors.

Publishing and lecturing: The CDC recognizes that professional development of its scientists —publishing their work, participating in professional conferences and peer review—is an essential part of maintaining the agency's scientific integrity. As a result, CDC employees and CDC-funded researchers are urged to disseminate their findings and research. CDC researchers are also encouraged to serve as editors for, or on the editorial boards of, professional journals (Guidance at 20-21).

Scientific societies: Membership in professional organizations is encouraged. CDC scientists are allowed to participate in professional or scholarly societies, committees, task forces, and other specialized bodies of professional societies. Most of these activities are considered an extension of an employee's official duties and do not require written approval; however, it may still be prudent for an employee to alert his or her supervisor. Participation beyond ordinary membership (e.g., holding office, committee membership) must be approved in advance by the Ethics Program Activity Office (Guidance at 21-22).

CDC employees are allowed to participate in activities outside the workplace as long as these do not conflict with job duties and do not violate a federal statute or regulation. Employees must obtain approval before

engaging in an outside activity that requires the use of professional qualifications readily identified with CDC employment (Guidance at 22).

Opinion statements: The guidance does not address an employee's right to make public statements of personal opinion. However, research misconduct does not include honest differences of opinion, and federal employees are generally entitled to express personal opinions publicly as long as they make clear that they are not speaking on behalf of the agency.

Hiring Practices

The guidance includes a section on selection of candidates for scientific positions, indicating that this is an important aspect of scientific integrity. Scientific and technical knowledge, credentials, experience, and professional stature should be the basis for hiring decisions with regard to the agency's scientific personnel (Guidance at 6-7). The Office of Personnel Management Group Coverage Qualification Standards for Professional and Scientific Positions is referred to as an external authority.

Federal Advisory Committees

The guidance describes advisory committees as "a key component of CDC's overall strategy to engage the public and stakeholders" (Guidance at 17). According to the guidance, recruiting a diverse and balanced pool of candidates for these committees is an important part of scientific integrity, as is transparency of committee activities. Specific processes are described in the CDC Federal Advisory Committee Management Handbook.

Human and Animal Research Subject Protections

The guidance mentions that the treatment of human and animal research subjects is part of scientific integrity. It says that the CDC has an ethical and legal obligation to "ensure that individuals are protected in all public health research activities it conducts" and "treat animals humanely" (Guidance at 5). The CDC has separate policies for both Human Research Protections and Laboratory Animal Care and Use.

Whistleblower Protections

The guidance states that the CDC is committed to complying with the 2002 Notification and Federal Employee Antidiscrimination and Retaliation Act (No FEAR Act), which requires that federal agencies be accountable for violations of anti-discrimination and whistleblower protection laws. All CDC staff are required to undergo mandatory No FEAR Act training (Guidance at 8). However, the guidance does not provide any additional protections to whistleblowers who come forward beyond what is required by federal law.

3 WHO DOES THE POLICY GOVERN?

The CDC guidance is not clear about who it covers—a significant omission. However, the policy on research misconduct provides some relevant information. That policy covers full-time CDC employees "or person

contracted by or affiliated with CDC, any trainee, Personal Services Contractors or Locally Employed Staff in foreign locations" (Policy § 2, footnotes 3 and 4). A CDC employee scientifically involved in a post-awards arrangement such as a cooperative agreement is also covered by the policy on research misconduct.

While it is not clear whether the CDC would consider these same categories of employees to be bound by its scientific integrity policy, it may provide some insight into how the agency looks at the issue.

4 WHAT IS THE PROCESS FOR FILING A COMPLAINT?

This guide is not a substitute for legal advice about any specific situation. If you are considering filing a scientific integrity complaint, or are the subject of a complaint, please contact the Climate Science Legal Defense Fund or another attorney for advice about your particular circumstances. Nonetheless, we will provide below general information about what the process may entail.

The guidance does not describe procedures for filing a scientific integrity claim or provide details about how these claims will be investigated and addressed. The CDC only offers this kind of structure in a separate policy on research misconduct. That policy and its associated appendices spell out procedures the agency uses to address claims of research misconduct.

It is not clear whether these procedures apply to claims of scientific integrity violations that fall outside research misconduct, such as political interference or censorship. Nonetheless, it is useful to describe the procedures on research misconduct as they provide some information about how the agency would handle such claims. The information in this section, as well as sections 5 and 6, is specific to research misconduct.

Who can make a claim under the policy?

The policy does not specify who is allowed to file a claim of research misconduct.

Where and how can a scientist make a claim?

The Associate Director for Science in that office serves as the CDC Research Integrity Officer (RIO) and is responsible for coordinating investigations of alleged research misconduct (Policy § 3). Someone who believes research misconduct has occurred should file a written allegation with the RIO.

What should a complaint contain?

The policy does not specify what information a claim should contain.

Is there a deadline for filing a complaint?

The policy does not specify whether a complainant is required to bring a claim within a certain timeframe after becoming aware of misconduct.

5 WHAT HAPPENS AFTER A COMPLAINT IS FILED?

Who investigates?

The RIO investigates claims of research misconduct. An investigation includes three separate phases: assessment, inquiry, and investigation.

Assessment

Upon receiving a research misconduct allegation, the RIO must assess whether it is sufficiently credible and specific to warrant further action. The RIO has a brief period—preferably no more than seven days—to conduct this assessment (Policy § 3).

At this stage, the allegation must meet the relevant definition of "research misconduct," which covers fabrication, falsification, or plagiarism (Policy § 3; see also 42 CFR § 93.103). The allegation also needs to meet certain jurisdictional requirements: it must relate to Public Health Service (PHS)-supported biomedical or behavioral research, either intramural or extramural; to applications or proposals for PHS support for such research; to PHS-supported training programs related to such research; or to other PHS-supported activities related to such research (42 CFR § 93.102).

Inquiry

The RIO must conduct an inquiry if all of the above factors are met (Policy § 3). The purpose of the inquiry is to conduct an initial review of the available evidence to determine whether an investigation is warranted. By the time an inquiry starts, the RIO must make a good faith effort to notify the subjects of the complaint in writing and obtain custody of relevant research records and other evidence (Policy, Appendix A § 3(C)).

The RIO is required to appoint an inquiry committee at this stage. The committee should consist of individuals with the scientific expertise necessary to evaluate the evidence and issues involved who do not have personal, professional, or financial conflicts of interest. The respondent (but not the complainant) has a right to be notified of the committee's composition and object within 10 calendar days (Policy, Appendix A § 3(D)).

The inquiry committee interviews the complainant, the subject of the complaint, and relevant witnesses, and also examines relevant research records and materials. The inquiry committee then issues a written report and makes a recommendation as to whether a full investigation is warranted (Policy, Appendix A § 3(F) and (G)). The CDC Chief Science Officer functions as the Deciding Official (DO), and makes the final determination about whether an investigation is warranted. The inquiry and determination must be completed within 60 calendar days absent extenuating circumstances (Policy at § 3).

Investigation

If the DO determines that an investigation is warranted, the investigation must begin within 30 days of making that determination (Policy, Appendix A § 4(A)). This investigation is intended to determine whether and who committed research misconduct and, if so, how serious the misconduct is. At this stage, the RIO must notify the subject(s) of the complaint, their immediate supervisors, and the immediate supervisors of any relevant witnesses (Policy, Appendix A § 4(B)).

The RIO must appoint an investigation committee and committee chair within 10 days of the beginning of the investigation (Policy, Appendix A § 4(C)). The committee should have at least five members with appropriate expertise and training to evaluate the evidence and issues involved. One member must be a person of similar professional designation as the subject of the complaint.

As with the inquiry committee, a priority is to ensure that the members of the investigation committee have no personal, professional, or financial conflicts of interest. The subject of the complaint, but not the complainant, has the right to object to the committee's proposed membership in writing to the SIO within 10 calendar days of being notified (Policy, Appendix A § 4(D)).

The committee conducts the investigation, which involves: 1) interviewing both the complainant and the subject of the complaint, as well as other available persons with relevant information, and 2) examining research records and evidence (Policy, Appendix A § 4(E)). The investigation must be completed within 120 calendar days absent extenuating circumstances (Policy, Appendix A § 4(I)).

The investigation committee must then prepare an investigation report, which includes a statement of findings for each allegation of research misconduct. Both the complainant and respondent should receive a draft of the report and have 30 calendar days to submit comments. The subject of the complaint, but not the complainant, has the right to see the evidence on which the report is based. (Policy, Appendix A § 4(F) & (G)).

Is the confidentiality of the parties protected?

The RIO is required to limit disclosure of the identity of respondents, complainants, and witnesses to those who need to know. Where legally possible, the RIO must limit the disclosure of any records or evidence from which research subjects might be identified (Policy § 3).

Do the parties have a right to a hearing?

The policy on research misconduct does not state whether either party has a right to a hearing.

Do the parties have a right to respond to the findings of the investigation?

Both parties have a right to submit comments on the investigation report within 30 days of receiving it. Those comments must be included and considered in the final report (Policy, Appendix A § 4(G)).

6 WHAT HAPPENS AFTER THE INVESTIGATION ENDS?

At the end of the investigation, the RIO sends the final investigation report to the DO, who makes a written determination. If the DO's determination varies from the finding of the investigation committee, the DO must explain the reason for the difference. The DO also has the option to return the report to the investigation committee for further fact-finding or analysis (Policy, Appendix A § 4(H)).

Once the DO has reached a final decision, the RIO will notify both parties in writing and determine whether any other parties need to be notified.

If misconduct is found, who decides what the resolution/remedy should be?

The DO determines appropriate agency actions if there is a finding of research misconduct (Policy, Appendix A § 4(H)).

Do the parties have the right to appeal if initial decision is not in their favor?

The person accused of misconduct may appeal the decision by submitting a written request to the RIO within 30 calendar days (Policy, Appendix A § 4(J)). If an appeal is filed, it must be acted upon within 120 days of its filing, unless the RIO finds good cause for an extension. It is not clear from the policy what body considers the merits of such an appeal. The language suggests that it is likely the investigation committee and the RIO, making this a reconsideration rather than an appeal to an independent decision-maker.

What are the penalties for misconduct?

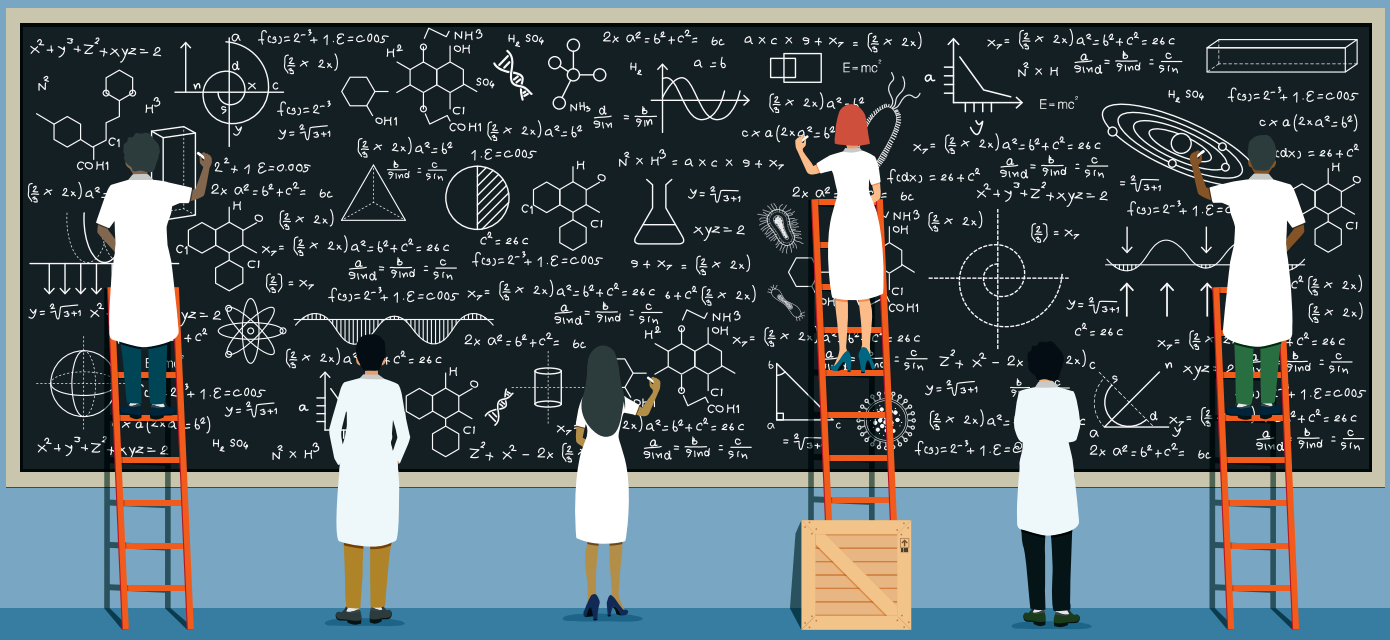
Examples of possible penalties for misconduct may include: 1) withdrawal or correction of pending or published abstracts or papers related to the research misconduct, and 2) other penalties, such as removal from a project, a letter of reprimand, probation, suspension, salary reduction, or initiation of steps leading to possible termination (Policy, Appendix A § 4(H)).

7 ADDITIONAL RELEVANT POLICIES AND RESOURCES

- CDC Policy for Peer Review of Research and Scientific Programs
- CDC Policy for Release of Information to News Media (not publicly available)
- CDC Authorship Policy
- CDC/ATSDR Policy on Public Health Research and Non-research Data Management and Access
- CDC Policy on Social Media Use

8 REPRESENTATIVE CASES AND OUTCOMES

Unlike some other agencies, the CDC does not appear to make summaries of cases or outcomes publicly available.



A QUICK GUIDE TO THE SCIENTIFIC INTEGRITY POLICY AT THE

Department of Homeland Security (DHS)

DHS Table of Contents

1 SUMMARY

The Department of Homeland Security Directive Number: 026-07 Scientific Integrity (referred to as the policy and SIP in this guide) outlines the policies and procedures for promoting scientific integrity at the DHS. According to the policy, "[w]ithin the scope of scientific and technological research conducted by or for the federal government, scientific integrity is characterized by principles and guidance for preserving and promoting scientific ethics and transparency" (SIP § IV.C).

This definition is clear, but the policy fails to address many scientific integrity issues. Of the topics covered, the policy fails to address most of them sufficiently, and it uses boilerplate language with no information about the application of the concept.

The policy fails to refer to or link to other DHS resources that may be relevant to the policy's provisions or address some omitted concepts. As a result, the policy is of little use to a scientist with questions or concerns about scientific integrity at the DHS.

The most serious omission is the policy's failure to address a fundamental aspect of scientific integrity: research misconduct. According to the policy, the DHS's mission includes conducting scientific and technical research to secure the United States and respond to natural disasters. Yet, there is little focus on the research process or ensuring its integrity.

Instead, the policy defines a breach of scientific integrity as "[a]ny inappropriate political influence on DHS scientists, engineers, researchers, or contractors to alter or suppress their scientific or technological data, findings, or conclusions."

Recognizing political interference as a scientific integrity issue is a strength of the policy, but omitting many research misconduct-related actions that could be considered breaches of scientific integrity is a failure.

2 WHAT DOES THE POLICY GOVERN?

Research Misconduct

The policy does not address research misconduct. The DHS has a separate directive on this topic, which defines research misconduct as "fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results. Research misconduct does not include honest error or differences of opinion."

However, the policy doesn't refer or link to the directive on research misconduct. Based on the policy language, research misconduct is not considered a violation of scientific integrity, although, in practice, these issues may be addressed together.

Conflicts of Interest

The policy does not specifically address conflicts of interest. However, the policy states that the DHS Office of Public Affairs (OPA) will work with the DHS Office of the General Counsel (OGC) Ethics Division to set clear standards covering conflicts of interest; no further details or links are provided (SIP § V.G.6).

Political Interference

The policy protects DHS scientists, engineers, and researchers from inappropriate political or outside interference and censorship in reporting their scientific or technological data, findings, and conclusions. DHS public affairs officers may not ask or direct federal scientists to alter scientific results (SIP § VI.A).

Threats and Intimidation

The policy does not address threats and intimidation to scientists.

Use of Science in Agency Decision-Making

According to the policy, policymakers at DHS should involve scientific and technological experts to ensure that the information and processes used to support their activities are of the highest integrity (SIP § VI). The data and research used to support these policy decisions should undergo independent peer review by qualified experts when feasible (SIP § VI.G).

Science Communication

The DHS policy recognizes the need for transparency and openness with the media and the public, and the importance of facilitating the free flow of scientific and technological information, where consistent with privacy, security, ethics, and proprietary considerations (SIP § VI.C).

Timeliness: The policy does not address the timeliness of science communications.

Press: The policy states that DHS scientists and engineers can talk to the media and public about scientific and technical matters based on their official work, but they must coordinate these activities with their immediate supervisor and the OPA.

The OPA may provide guidance and implement processes to resolve disputes that arise regarding whether DHS employees should participate in interviews and other public information-related activities. In response to media requests about DHS work, the OPA should offer articulate and knowledgeable spokespersons who can talk about the work in an objective and nonpartisan fashion (SIP § V.G).

Social media: The policy does not address scientists' use of social media.

Testifying before Congress: The policy does not address whether scientists have the right to testify before Congress. However, this right is protected elsewhere by federal law.

Right of scientists to review and/or correct agency communications: The policy does not address whether scientists have the right to review agency communications that rely on their work or attribute them as authors, or to correct inaccuracies in agency communications.

Publishing and lecturing: The DHS supports its scientists' professional development by encouraging them to publish in journals and present at professional meetings and conferences, as long as these activities are consistent with ethics rules for federal employees and coordinated with the OPA and OGC (SIP § VI.F). Each DHS component should allow scientists to become editors or editorial board members of professional or scholarly journals, as long as they follow ethics rules (SIP § V.D.3).

Scientific Societies: The policy says each DHS component should allow its scientists to participate fully in professional or scholarly societies. The policy says DHS components should remove barriers for scientists who wish to serve as officers or on governing boards of such societies (SIP § V.D.3).

Opinion statements: The policy does not address whether scientists have the right to make public statements of personal opinion.

Hiring Practices

The DHS will select individuals for scientific and technical positions based upon their knowledge, credentials, integrity, and experience (SIP § VI.E).

Federal Advisory Committees

The DHS will appoint members to Federal Advisory Committees (FACs) who possess the relevant scientific and technical expertise (SIP VI.D). The policy doesn't expand on the use of FACs beyond a footnote linking to the DHS Directive on Committee Management, which covers the use of FACs at the DHS.

Whistleblower Protections

The policy states that the DHS will provide whistleblower protections as required by law. The agency does not appear to offer additional protections for whistleblowers.

3 WHO DOES THE POLICY GOVERN?

The policy applies to all internal and external research sponsored or funded by any component of the DHS; note that the term component is not defined (SIP § II).

4 WHAT IS THE PROCESS FOR FILING A COMPLAINT?

This guide is not a substitute for legal advice about a specific situation. If you are considering filing a scientific integrity complaint, or are the subject of a complaint, please contact the Climate Science Legal Defense Fund or another attorney for advice about your particular circumstances.

Who can make a claim under the policy?

DHS employees and contractors have the right to file a claim if they believe there has been a breach of scientific integrity under the DHS policy (SIP § VII).

Where and how can a scientist make a claim?

Claims should be made to the Scientific Integrity Officer (SIO) (SIP § VII). The SIO is a non-political, senior-level DHS employee responsible for coordinating, implementing, and ensuring compliance with the SIP (SIP § V.B).

What should a complaint contain?

The policy does not address what a complaint should contain.

Is there a deadline for filing a complaint?

The policy does not address deadlines for filing a complaint.

5 WHAT HAPPENS AFTER A COMPLAINT IS FILED?

Who investigates?

When a complaint is received, the SIO will convene a Scientific Integrity Committee to investigate the alleged breach of scientific integrity (SIP § VII.A). The committee is responsible for fact-finding, which may include reviewing relevant documents and conducting interviews. This ad hoc committee should consist of representatives from the OGC and the Chief Human Capital Office, DHS component matter experts (each DHS component will designate a representative to serve on this committee when requested by the SIO), and outside subject matter experts as deemed necessary by the SIO (SIP § V.C).

This committee will then conduct fact finding which may include reviewing relevant documents and conducting interviews. The committee will designate a lead fact-finder to manage the investigation and prepare a report of findings. The committee will review the report and determine if a breach of scientific integrity occurred (SIP § VII.B).

Is the confidentiality of the parties protected?

The policy does not cover whether the confidentiality of parties is protected.

How long will the investigation take?

The policy does not say how long the investigation should take.

Do the parties have a right to a hearing?

The policy does not reference the right to a hearing; it only states that interviews may be conducted.

Do the parties have a right to respond to the findings of the investigation?

The policy does not specify whether the parties have a right to respond to the investigation's findings.

6 WHAT HAPPENS AFTER THE INVESTIGATION ENDS?

If a loss of scientific integrity is found, who decides what the resolution/remedy should be?

The Scientific Integrity Committee determines what the remedy should be.

Do the parties have the right to appeal if initial decision is not in their favor?

The policy does not cover whether the parties have the right to appeal the initial decision.

What are the penalties for misconduct?

If misconduct is found, the scientific integrity committee should provide its findings to the appropriate personnel to ensure correction of the data, results, or conclusions in question. The committee will refer the matter to the supervisor of the individual who engaged in the breach of scientific integrity for the appropriate action (SIP § VII.C).

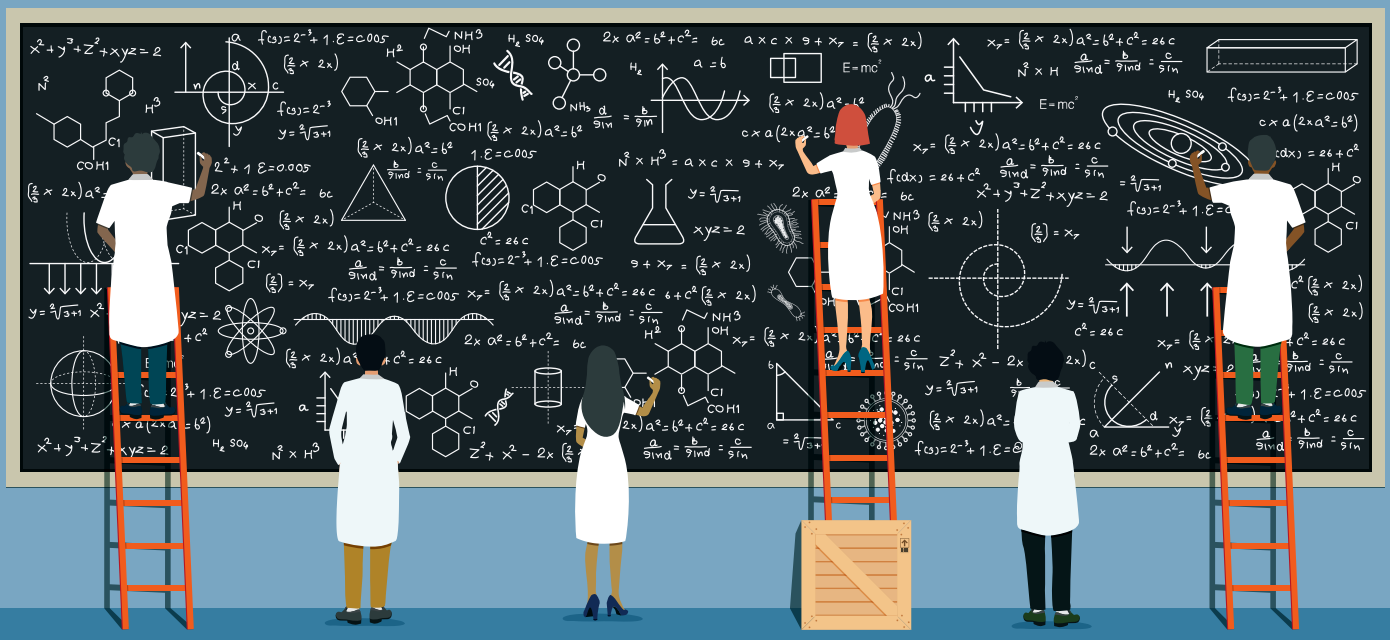
7 ADDITIONAL RELEVANT POLICIES AND PROCEDURES

DHS Management Directive on Research Misconduct

DHS Management Directive on Committee Management

8 REPRESENTATIVE CASES AND OUTCOMES

Unlike some scientific agencies, the DHS does not appear to make the outcomes of past cases public.



A QUICK GUIDE TO THE SCIENTIFIC INTEGRITY POLICY AT THE

Department of Defense (DOD)

DOD Table of Contents

1 SUMMARY

The Department of Defense (DOD) scientific integrity policy (referred to as the policy and SIP in this guide) briefly describes many of the key components of a scientific integrity policy. But it fails to expand on most of them, leaving many questions about what the policy's provisions mean. Several concepts are missing from the policy and it does not provide links to relevant resources, although there is a list of non-linked resources at the end. Token language—and the omission of several concepts—mean the policy is of little use to a scientist with concerns about violations of scientific integrity.

The DOD policy fails to address the most basic aspect of scientific integrity: research misconduct. There is information about misconduct in a separate document, DOD Instruction 3210.7 (referred to in this guide as DODI). But the policy doesn't refer to the DODI, which could lead to confusion.

The DOD doesn't have one standard policy to address research misconduct. Instead, individual DOD Components are able to develop their own procedures (the term DOD Components is used across various different DOD policies and is defined in DODI 3210.7 2.1. as "[t]he Office of the Secretary of Defense, the Combatant Commands, the Defense Agencies, the DOD Field Activities and all other organization entities in the Department of Defense"). It would be helpful to have this mentioned in the SIP to demonstrate that the DOD takes research misconduct seriously and has procedures to ensure its Components can address allegations of misconduct.

2 WHAT DOES THE POLICY GOVERN?

Research Misconduct

The policy does not address research misconduct. However, DOD Instruction 3210.7, which is not mentioned in the policy, defines research misconduct as "fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results. Research misconduct does not include honest error or differences of opinion" (DODI 3210.7 E2.1.10.).

Conflicts of Interest

According to the policy, the DOD will maintain clear standards concerning conflicts of interest (SIP 4(d)(3)), but it does not expand on what is meant by this. Instead, the policy refers to Joint Ethics Regulation: DOD 5500.07-R, which is included in the references section of the policy (but there's no link to this reference).

Political Interference

According to the policy, DOD personnel can never ask or direct scientists to alter or suppress their professional findings, although they may suggest factual errors be corrected. The policy does not expand further on this topic (SIP 4(b)(3)(c)).

Threats and Intimidation

The policy does not address threats, intimidation, or other interference with research as being violations of scientific integrity.

Use of Science in Agency Decision-Making

It is DOD policy to ensure that relevant scientific and engineering information and recommendations, including underlying assumptions and uncertainties, are available to the senior DOD policy and acquisition leaders who make decisions that may be impacted by that information (SIP 4a). The policy also says the DOD will make sure that the data and research used to support DOD policy and acquisition decisions are reviewed by qualified, independent experts when feasible and consistent with law (SIP 4(d)(2)).

Science Communication

The DOD policy recognizes the importance of making the scientific and engineering information developed or used by the DOD available to the public. The DOD permits publication of fundamental research results in accordance with national security requirements and makes scientific and engineering information available online (SIP 4(b)(1) and (2)).

Due to the nature of the DOD's work, the references also incorporate DOD Directive 5230.09: Clearance of DOD Information for Public Release (referred to in this guide as DODD). It states that official DOD information that pertains to military matters, national security issues, or subjects of significant concern to the DOD shall be reviewed for clearance prior to public release.

Timeliness: The policy does not address the timeliness of science communications. However, DOD Directive 5230.09 says the DOD should ensure that accurate and timely information is made available to the public and Congress to facilitate analysis and understanding of defense strategy, defense policy, and national security issues (DODD 5230.99 4.a.).

Press: The policy states that federal scientists and engineers may speak to the media and the public about scientific and technical matters based on their official work as long as they coordinate their activities with the DOD (SIP 4(b)(3)(a)). Approval to speak to the media shall not be unreasonably withheld or delayed (SIP 4(b)(3)(b)), and the DOD will make articulate and knowledgeable spokespersons available to the media upon request (SIP 4(b)(3)).

Social media: The policy does not address social media.

Testifying before Congress: The policy does not address whether scientists have the right to testify before Congress. However, this right is protected elsewhere by federal law.

Right of scientists to review and/or correct agency communications: The policy does not address whether scientists have the right to review agency communications that rely on their work or attribute them as authors, or to correct inaccuracies in agency communications.

Publishing and lecturing: DOD supports the professional development of its scientists by encouraging presentations and publication in peer-reviewed journals, as well as serving as editors or members on the editorial boards of such journals (but not as DOD representatives). It also encourages acceptance of professional honors and awards (SIP 4(e)).

Due to the potentially classified nature of research conducted by the DOD, Directive 5230.09 also addresses publishing and lecturing. It specifies that to ensure academic freedom and encourage intellectual expression, students and faculty members of an academy, college, university, or DOD school are not required to submit papers or materials prepared in response to academic requirements for review by the DOD if the materials are not intended for release outside the academic institution.

Information intended for public release or made available in libraries to which the public has access must be submitted for review. Clearance should be granted if classified information is not disclosed, DOD interests are not jeopardized, and the author accurately portrays official policy—even if the author takes issue with that policy (DODD 5230.09 4.e.).

Scientific Societies: The DOD encourages agency scientists to participate in professional societies, including as officers or members of governing boards (SIP 4(e)(2)).

Opinion statements: The policy does not address whether scientists have the right to make public statements of personal opinion. A provision in DOD Directive 5230.09 says that DOD personnel, while acting in a private capacity and not in connection with their official duties, have the right to prepare information for public release through non-DOD fora or media. This information must be reviewed for clearance if it meets certain criteria; it must comply with certain ethical standards; and it may not have an adverse effect on duty, performance, or the authorized functions of the DOD (DODD 5230.09 4.g.).

Hiring Practices

Selection of scientists and engineers as DOD employees should be based on their scientific and engineering credentials (SIP 4(d)(1)), according to the policy.

Federal Advisory Committees

DOD policy is to assure that the Federal Advisory Committees (FACs) providing advice to the DOD on scientific, engineering, and other technical matters are well-qualified and selected in a transparent manner. An FAC's recommendations shall be treated solely as the findings of the FAC and not of the DOD. With the exception of security reviews, these findings are not subject to DOD or interagency revision (SIP 4(c)).

Whistleblower Protections

The policy states that DOD will provide whistleblower protections as required by law; it does not appear to provide additional protections for whistleblowers.

3 WHO DOES THE POLICY GOVERN?

The policy introduction states that it applies to the Office of the Secretary of Defense (OSD), the Military Departments, the Office of the Chairman of the Joint Chiefs of Staff and the Joint Staff, the Combatant Commands, the Office of the Inspector General of the Department of Defense, the Defense Agencies, the DOD Field Activities, and all other organizational entities within the DOD.

4 WHAT IS THE PROCESS FOR FILING A COMPLAINT?

This guide is not a substitute for legal advice about any specific situation. If you are considering filing a scientific integrity complaint, or are the subject of a complaint, please contact the Climate Science Legal Defense Fund or another attorney for advice about your particular circumstances. Nonetheless, we will provide below general information about what the process may entail.

The DOD policy does not contain information about the process of filing a scientific integrity complaint—a significant omission. In fact, the policy does not refer to violations of scientific integrity, research misconduct, or what constitutes a research misconduct violation—and there is nothing in the reference section that addresses these concepts.

DOD Instruction Number 3210.7: Research Integrity and Misconduct discusses allegations of research misconduct, but it does not describe the process of filing and investigating a complaint. Each DOD Component (see definition on page 21) must adopt its own procedures to ensure that research is conducted under the highest ethical standards and that there are measures in place for reviewing allegations of research misconduct. Enclosure 3 to the Instruction sets out the requirements for such research misconduct procedures. It also describes the three stages of addressing an allegation of research misconduct: inquiry, investigation, and adjudication (DODI 3210.7 E3.1.9.1.).

Who can make a claim under the policy?

Neither the policy nor DODI 3210.7 address who can make a claim.

Where and how can a scientist make a claim?

Neither the policy nor DODI 3210.7 address where and how a scientist can make a claim.

What should a complaint contain?

Neither the policy nor DODI 3210.7 address what a complaint should contain.

Is there a deadline for filing a complaint?

Neither the policy nor DODI 3210.7 address a deadline for filing a complaint.

5 WHAT HAPPENS AFTER THE COMPLAINT IS FILED?

DDODI 3210.7 provides limited guidance. It states that DOD Components should designate the individuals responsible for reviewing and responding to allegations of research misconduct (DODI 3210.7 E3.1.3.). DOD Components may use any available resource to respond to allegations, including their Office of Inspector General, legal counsel, and expert consultants (DODI 3210.7 E3.1.7.). DODI 3210.7 E.9.1. also says that DOD Components must designate the responsibilities for handling each phase of the response.

Is the confidentiality of the parties protected?

DODI 3210.7 requires that steps must be taken to ensure confidentiality during the investigation process, and that knowledge of informants and subjects should be shared only on a "need to know" basis (DODI 3210.7 E3.9.12.).

How long will the investigation take?

DODI 3210.7 E3.1.9 states that DOD Components' procedures for addressing allegations of research misconduct should specify the timeframe for completing each phase of the response.

Do the parties have a right to a hearing?

DODI 3210.7 doesn't reference the right to a hearing when detailing the minimum requirements for procedures when addressing an allegation of research misconduct.

Do the parties have a right to respond to the findings of the investigation?

DODI 3210.7 states that the subject of the allegation has the right to respond to the findings (DODI 3210.7 E3.1.9.11.).

6 WHAT HAPPENS AFTER THE INVESTIGATION ENDS?

If a loss of scientific integrity is found, who decides what the resolution/remedy should be?

DODI 3210.7 doesn't contain information on this topic. It only states that the DOD Components should designate the handling of each phase of the response to the appropriate official. The responsibility for adjudication can be assigned to an individual higher in the chain of command or to a part of the research institution other than the one that conducted the inquiry and investigation.

Do the parties have the right to appeal if initial decision is not in their favor?

DODI 3210.7 states that procedures for addressing claims of misconduct should contain the right to appeal a finding of research misconduct. The authority to which an appeal should be made must not be an office or individual directly involved in the inquiry, investigation, or adjudication of the allegation of research misconduct. The organizational level able to hear the appeal may be defined by the DOD Component as long as there is an adequate separation of responsibilities and there is no appearance of bias, inequity, or conflict of interest (DODI 3210.7 E3.1.9.15.).

What are the penalties for misconduct?

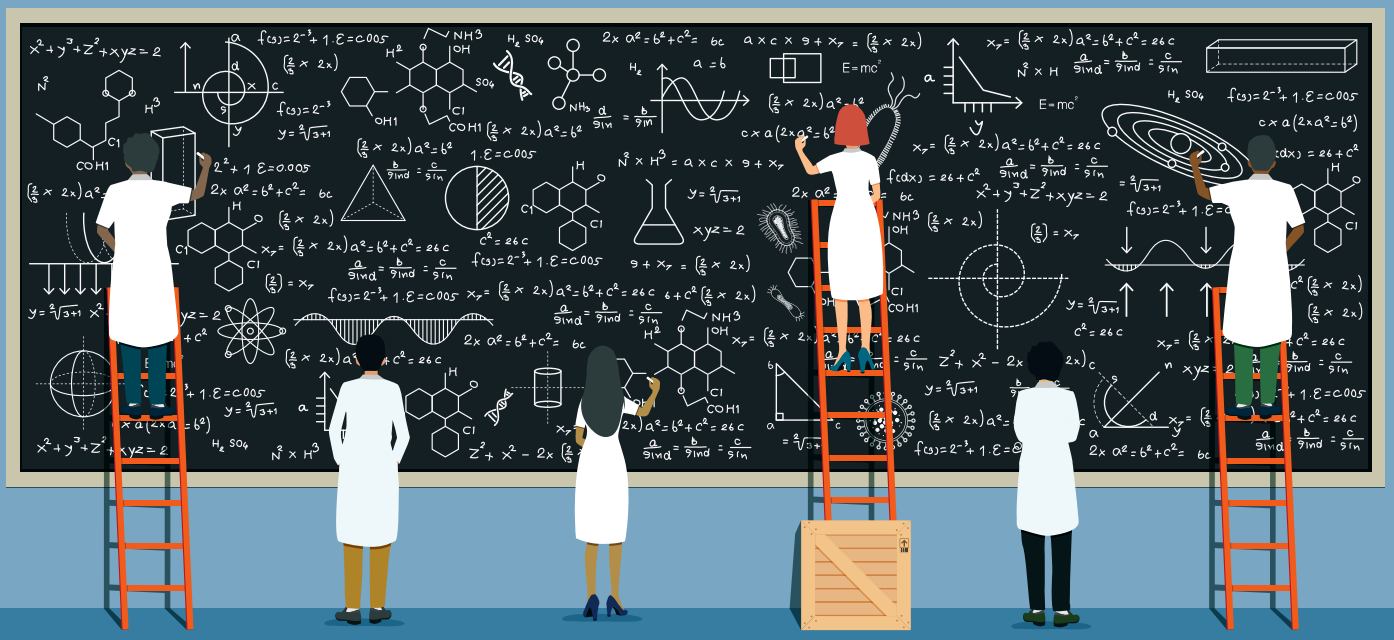
DODI 3210.7 has limited guidance on the penalties if research misconduct is found. It states that corrective actions should generally be administrative in action, such as termination of award(s), debarment, or special approvals of the research record. Civil or criminal sanctions may be pursued (DODI 3210.7 (E2.1.1)) if there is an indication that civil or criminal statutes were violated.

7 ADDITIONAL RELEVANT POLICIES AND RESOURCES

- DOD Instruction 3210.7: Research Integrity and Misconduct
- DOD Directive 5230.09: Clearance of DOD Information for Public Release
- DOD Instruction Number 5230.27: Presentation of DOD-Related Scientific and Technical Papers at Meetings
- DOD Directive 3216.02: Protection of Human Subjects and Adherence to Ethical Standards in DOD-Supported Research
- DOD 5500.07R: Joint Ethics Regulation

8 REPRESENTATIVE CASES AND OUTCOMES

Unlike some other scientific agencies, the DOD does not appear to make the outcomes of past cases public.



A QUICK GUIDE TO THE SCIENTIFIC INTEGRITY POLICY AT THE

Department of Energy (DOE)

DOE Table of Contents

1 SUMMARY

The DOE scientific integrity policy (referred to as the policy and SIP in this guide) is more comprehensive than others in that it covers political interference, threats and intimidation of scientists, and censorship. The policy uses strong language when referring to freedom of expression and professional development of its scientists, indicating that DOE prioritizes these as part of scientific integrity. However, it describes no formal processes for filing and investigating scientific integrity complaints, which is a significant shortcoming. And, to the best of our knowledge, at the time of this publication DOE had not designated a Scientific Integrity Official, despite the fact that the policy requires the Secretary of Energy to appoint one (SIP § 5).

When the DOE approved its current scientific integrity policy in 2017, it simultaneously approved a departmental order on scientific integrity (referred to as the departmental order and DO in this guide), designed to implement the policy. This approach is problematic because there are two policies and they're not centralized in one place. There are also inconsistencies between the two documents, even on some fundamental issues such as who is bound by them.

2 WHAT DOES THE POLICY GOVERN?

Research Misconduct

The policy and departmental order do not prohibit DOE employees from engaging in research misconduct—a significant deficiency. The policy only mentions research misconduct in relation to third parties who are funded by or doing research on behalf of the DOE. Even then, the policy does not set out any standards or requirements. It only points to the locations of procedures for handling allegations of misconduct related to research supported by DOE contracts and agreements, and research supported by DOE financial assistance agreements in the Code of Federal Regulations (SIP § 8(a)).

The departmental order only addresses research misconduct in the context of third parties; a contractor requirements document attached to it charges contractors with monitoring, prevention, detection, and remediation of research misconduct (DO contractor requirements document §§ 1(a)(3) and 2(f)).

Conflicts of Interest

The DOE policy mentions conflicts of interest once, stating that scientists are encouraged to accept honors and awards for their research accomplishments, "subject to compliance with all applicable conflict of interest statutes" (SIP § 7(c). Aside from this, the policy does not discuss how conflicts of interest interface with scientific integrity, or when a conflict of interest might lead to a loss of scientific integrity.

The departmental order has little information on the subject, stating only that federal supervisors must "follow all applicable conflict of interest laws, regulations, and policies" (DO § 5(d)(3)). This implies that the DOE considers avoiding conflicts of interest to be part of scientific integrity. Yet the departmental order provides no guidance on what policies are applicable, or when and how a violation of scientific integrity could occur in the context of a conflict of interest. It also gives no indication about whether DOE employees who are not "federal supervisors" (a term not defined in the policy) can violate scientific integrity by failing to observe conflict of interest rules.

Political Interference

The DOE policy prohibits anyone, including public affairs officers, from asking or directing a researcher to "alter the record of scientific findings or conclusions" under any circumstances (SIP § 2(a)). The departmental order includes a similar statement prohibiting anyone covered by the policy, including public affairs officers, from asking or directing researchers to alter scientific findings (DO § 4(c)).

Threats and Intimidation

The departmental order prohibits federal supervisors from suppressing or altering "scientific or technological findings, and intimidating or coercing federal staff, contractors, recipients of financial assistance awards, or any others into suppressing or altering scientific or technological findings or conclusions (DO § 5(d)(4)).

In a surprising oversight, the departmental order does not impose similar requirements on DOE employees who are not "supervisors," such as political appointees, department heads, or public affairs officials. However, the attachment regarding contractors contains a similar requirement for those in management at DOE contractors, but does not define what it means to be "in management" (DO contractor requirements document § 2(b)).

This is a place where having a scientific integrity policy and a departmental order to implement that policy creates confusion. The DOE scientific integrity policy contains a similar provision that prohibits all covered personnel from suppressing or altering scientific or technological findings, or from intimidating or coercing anyone to alter or censor scientific or technological findings or conclusions (SIP § 2(b)). As a result, it is not clear whether this requirement applies to all covered personnel or only to supervisors and managers at DOE contractors.

Use of Science in Agency Decision-Making

DOE's policy does not address the use of science in agency decision-making.

Science Communication

According to the policy, freedom of expression is an integral part of scientific integrity. Those covered by the policy are "free and encouraged to discuss their scientific work and research openly, whether in a scientific or a public forum or with the media, and to publish their findings" (SIP § 1(a)). The policy goes on to state that "DOE supports the free flow of scientific information, within the scientific community and between scientists and the public."

The policy also addresses the rights of third parties who receive DOE assistance agreements in this regard. "Except as indicated in individual assistance agreements, recipients, sub-recipients, and their respective institutions have no responsibility to coordinate with the DOE on public communication, but are welcome to voluntarily coordinate with the DOE, when appropriate, to publicize scientific publications and/or results" (SIP §2(e)).

Timeliness: The departmental order requires supervisors and other responsible personnel to make research findings available to the public in a timely manner and in accessible formats (DO § 5(d)(5). The order requires a broader category of employees designated "federal staff" to "facilitate the free flow of scientific and technological information," but this requirement does not contain specific references to the timeliness of such information (DO § 5(f)(1)).

Press: Section 4 of the departmental order addresses media requests, stating that "all federal staff who receive requests from media outlets for interview or comment based on their scientific or technical expertise are free to comment." Federal staff who choose to comment must notify their organization's public affairs office. The policy is notably ambiguous as to whether that notification must come before or after commenting to the media.

When a scientist is publicly representing a government or DOE position or policy (presumably distinct from discussing scientific research), their representation must be cleared through program management, up to and including DOE headquarters, if appropriate.

Section 2(c) of the contractor requirements document attached to the departmental order contains provisions that pertain to how DOE contractors should communicate with the media. Research personnel at a DOE contractor must notify their institution's management and public affairs offices about their interactions with the media. If a communication between a contractor and the media goes beyond research findings and conclusions and touches on policy or operational issues, the contractor's public affairs office must coordinate with DOE headquarters prior to the response. Finally, contractors must clear any public representation of government or DOE positions or policies through DOE headquarters, and must obtain prior approval of news releases from DOE before their publication.

Social media: Section 4(e) of the departmental order contains robust provisions addressing social media use and scientific integrity. It requires that offices responsible for posting to official DOE accounts:

- Provide draft text to the appropriate agency scientists and engineers whose work is included to ensure the accuracy of the scientific information being communicated prior to posting.
- Issue correction statements if incorrect technical information is released on social media platforms.

When expressing personal scientific and technical views and related policy positions using digital media, covered personnel:

- Do not need to obtain permission or approval from their supervisors or management to use digital media in a personal capacity.

- Must include a disclaimer stating that opinions expressed are personal and not representative of the positions or policies of DOE or the U.S. government if they have a social media profile that references their official title, position, or DOE affiliation.
- Will not suppress or alter the social media posts of covered personnel that express scientific and technical opinions or related policy opinions.
- Must comply with the DOE policy regarding the use of government equipment for personal use and the Standards of Ethical Conduct for Employees of the Executive Branch regarding the use of official time to perform official duties.

Section 2(e) of the contractor requirements document attached to the departmental order contains policies for social media use by contractors; similar to other covered personnel, contractors do not need to seek approval from DOE headquarters to use digital media in a personal capacity. In addition, management personnel or public affairs officers at DOE contractors must not suppress or alter social media posts by contractors that express scientific and technical opinions or related policy opinions.

Testifying before Congress: While the policy does not state that agency scientists have a right to testify before Congress, this right is protected by federal law.

Right of scientists to review and/or correct agency communications: Both the policy and departmental order require that, when technical information is communicated to the public that significantly relies on the research of covered personnel, identifies them as authors or contributors, or proposes to represent their scientific opinions, they must have the opportunity to review the communication prior to its publication or release. They must also be allowed to correct any errors that occur (SIP § 2(c); DO §4(d)).

Section 2(g) of the contractor requirements document attached to the departmental order has a similar requirement for contractors, stating that management at a DOE contractor "must provide personnel an opportunity to review, prior to publication or release, any institutional public communication (e.g., laboratory report or press release) that substantially relies on their research or is released under their name." However, this section does not address a right to correct errors made in public communications.

Publishing and lecturing: According to the policy, the professional development of DOE scientists is an important part of maintaining scientific integrity. The policy encourages activities such as attending or speaking at scientific and technical conferences; publishing in peer-reviewed, professional, or scholarly journals; or becoming an editor or editorial board member of a journal (SIP § 7).

The departmental order says little about the subject, but cautions that staff should provide a reasonably prominent disclaimer when using their title or position when publishing in a scientific or scholarly journal. An example of an appropriate disclaimer is: "The views expressed in the article do not necessarily represent the views of the U.S. Department of Energy or the U.S. government" (DO § 5(f)(3).

Regarding contractors, the departmental order states that "[i]n general, any policies impacting the professional development activities of personnel are the purview of the contractor, with the exception that personnel and management must follow applicable DOE guidance on conference attendance and management of scientific and technical information in accordance with the contract" (DO contractor requirements document § 2(h)).

Scientific societies: The policy encourages DOE scientists to participate in professional or scholarly societies, committees, or task forces (SIP § 7).

Opinion statements: Covered personnel can express their opinions on policy matters to the public and to the media, but they must clarify that they are expressing personal views and not those of the DOE, the U.S. government, or their respective institution (DO §4(a)).

Staff must also "[e]nsure that their federal titles or positions are not given more prominence than other significant biographical details when sharing personal opinions on scientific and technical topics or related policies in a public forum. This applies to opinions shared either when speaking publicly or in published writing" (DO § 5(f)(2)).

Hiring Practices

Supervisors are required to "select and retain candidates for scientific and engineering positions based primarily on their scientific and technological knowledge, credentials, experience, and integrity" (DO § 5(d)(1)).

Federal Advisory Committees

Section 6 of the policy addresses Federal Advisory Committees. While the inclusion of this section indicates that the DOE acknowledges that having advisory committees is an important aspect of scientific integrity, the policy does not say anything specific about how DOE will ensure the appropriate and transparent use of such committees other than it will comply with the pre-existing Federal Advisory Committee Act.

Whistleblower Protections

Section 4 of the policy addresses whistleblower protections. "As part of its commitment to ensuring the actual and perceived credibility of government research, the DOE is fully committed to the Whistleblower Protection Act of 1989, the expanded protections for federal employees signing non-disclosure agreements afforded by the Whistleblower Protection Enhancement Act of 2012 (WPEA), and the Notification and Federal Employee Antidiscrimination and Retaliation Act of 2002."

However, the policy does not provide whistleblower protections beyond these existing laws for anyone who files a scientific integrity complaint.

Classified Information

The DOE policy prohibits staff from using the fact that information has been classified as a means for suppressing scientific results. This is accompanied by an acknowledgment that information that may affect national security must remain classified (DO § 4(g)(3)).

The contractor requirements document attached to the departmental order addresses the use of classified documents by DOE contractors and requires them to review documents in a classified area in accordance with a separate DOE Order identifying classified information prior to public release (DO contractor requirements document § 2(c)(5)).

3 WHO DOES THE POLICY GOVERN?

Having separate, uncoordinated documents on scientific integrity leads to confusion in this area. Both the DOE scientific integrity policy and the departmental order use the term "covered personnel" to describe who they govern (SIP 9(a); DO § 7(a)). But the two documents do not define "covered personnel" in the same way.

The definitions are identical in many ways. Both state that DOE personnel covered by the scientific integrity policy include:

- All federal staff, including the heads of departmental elements and heads of field elements
- Political appointees
- Those working at DOE under the Intergovernmental Personnel Act
- Federal research scientists and engineers directly employed by the DOE

Both definitions include the catch-all phrase, "any other personnel that are involved with scientific information." And both specify that the policy is intended to cover people working at the National Nuclear Security Administration, however the language is somewhat different. The policy says that "covered personnel" includes "federal staff working at the National Nuclear Security Administration." The departmental order says "National Nuclear Security Administration personnel," a term which could be significantly broader.

The departmental order's definition of "covered personnel" broadly includes contractors, but it is not clear whether the definition in the policy does. That definition includes contractors to the extent that it covers personnel at the 17 DOE National Laboratories, which are operated by non-federal entities and whose personnel are employees of the contractors who manage and operate the labs.

There is an additional layer of confusion. In addition to a definition of "covered personnel," the departmental order includes an "Applicability" section which has a different description of whom the order applies to (DO §3(a). This section says the order applies to "all DOE elements that conduct or support research and development," a considerably broader phrase than is used in either of the definitions of "covered personnel." This section then repeats some, but not all, portions of the definitions of "covered personnel" found elsewhere in the policy and the departmental order.

4 WHAT IS THE PROCESS FOR FILING A COMPLAINT?

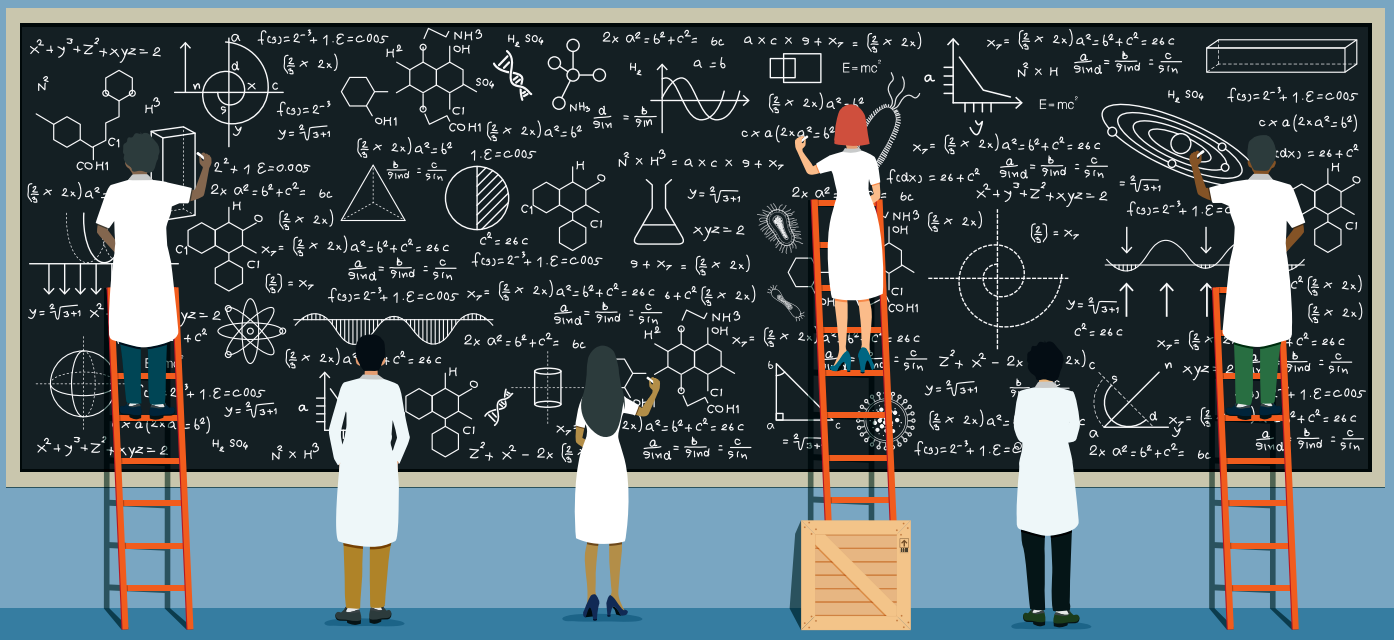
Neither the policy nor the departmental order contain information about the filing, investigation, or resolution of a scientific integrity complaint. This is a significant shortcoming of the DOE policy.

5 ADDITIONAL RELEVANT POLICIES AND RESOURCES

- DOE Order on Differing Professional Opinions
- The DOE Employee Concerns Program
- DOE website on social media best practices

6 REPRESENTATIVE CASES AND OUTCOMES

Unlike some other scientific agencies, the DOE does not appear to make the outcomes of past cases public.



A QUICK GUIDE TO THE SCIENTIFIC INTEGRITY POLICY AT THE

Department of the Interior (DOI)

DOI Table of Contents

1 SUMMARY

The DOI scientific integrity policy consists of two primary documents: a chapter in the departmental manual, titled Integrity of Scientific and Scholarly Activities (referred to as the departmental manual and DM in this guide), and a document titled Scientific Integrity Procedures Handbook (referred to as the handbook), which supplements the policy's requirements.

The DOI policy is spelled out in the departmental manual. It contains encouraging, broad language indicating that the department supports a culture of scientific integrity. It also extends the concept of scientific integrity beyond research misconduct. Under DOI's policy, scientific integrity can also be violated when scientists are pressured, threatened, or censored for political reasons, when they are prevented from communicating freely with the media and public about their work, and when they are prohibited from participating in professional organizations.

The DOI policy provides a test and an evidentiary standard for a finding of a loss of scientific integrity, and sets out clear processes for how a complaint should be dealt with and an investigation conducted. But the policy has no information about some important areas of scientific integrity, including professional development activities for scientists such as publishing and participating in scientific conferences.

The policy also fails to provide many important procedural details and protections. For example, there is no information about how the DOI should respond if a loss of scientific integrity is found, or who makes such a determination. It does not provide an explicit right to a hearing or an appeal—either to the complainant or to the subject of a complaint—in the event of a negative determination. It only offers the right to the subject of the complaint to request a reconsideration by the Scientific Integrity Officer (SIO), not the complainant.

2 WHAT DOES THE POLICY GOVERN?

The DOI policy defines scientific integrity as "the condition that occurs when persons covered by this chapter adhere to accepted standards, professional values, and practices of the relevant scientific community" (DM § 3.5). As discussed later in this guide, "persons covered by this chapter" are all DOI employees, including political appointees, volunteers, and outside parties including contractors and grantees.

A loss of scientific integrity occurs when there is a significant departure from those standards, values, and practices. This is a fairly broad definition that goes beyond traditional research misconduct such as plagiarism or falsification of data.

Research Misconduct

The DOI policy prohibits all agency employees, volunteers, and outside parties from intentionally hindering the scientific activities of others or from engaging in scientific misconduct; this is defined as fabrication, falsification, or plagiarism in proposing, performing, or reviewing scientific activities, or in the products or reporting of the results of these activities. The policy also addresses intellectual property theft in this context, requiring all individuals engaged in scientific activities to "respect the intellectual property rights of others," but without providing further detail about what that means (DM §§ 3.5 and 3.7).

Conflicts of Interest

The DOI policy prohibits all DOI employees, volunteers, and outside parties from knowingly participating in matters that cause a conflict of interest for themselves or others (DM § 3.7(A)(5)).

A "conflict of interest" is defined only by references to other, mostly unenumerated, laws and policies. The policy states that "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, which may include federal ethics requirements, applicable standards issued by the Office of Government Ethics, federal acquisition requirements, and the prevailing practices of the National Academy of Sciences as adopted" by the Office of Management and Budget (OMB) (DM § 3.5(E)).

Political Interference

The DOI policy prohibits decision-makers from engaging in "dishonesty, fraud, misrepresentation, coercive manipulation, censorship, or other misconduct that alters the content, veracity, or meaning, or that may affect the planning, conduct, reporting, or use of scientific activities" (DM §3.7(C)(1)). Decision-makers are "individuals who develop polices that involve, or rely on, scientific activities; implement or manage activities that involve, or rely on, scientific activities; or supervise employees who engage in scientific activities" (DM § 3.5(G)).

One notable aspect of the DOI policy is that it only prohibits "decision-makers" from engaging in political interference, not all employees. And, as worded, it is not clear that the policy prohibits decision-makers from attempting to coerce, manipulate, or censor scientific findings (i.e. only successful coercion, manipulation, or censorship by decision-makers violate the policy). Only public affairs officers are explicitly prohibited from asking or directing scientists to alter findings. This can have important practical implications. At the National Park Service, a subsidiary agency of the DOI, at least one alleged violation of scientific integrity was dismissed because concerted efforts to coerce a scientist into altering and censoring their work were unsuccessful.

Threats and Intimidation

Except to the extent that the policy's prohibition on coercive manipulation can be construed to cover threats and intimidation, the DOI's policy does not explicitly address threatening or intimidating researchers.

Use of Science in Agency Decision-Making

The departmental manual and the handbook both recognize that ensuring the agency's credibility and effectiveness are an essential part of guaranteeing the science used in agency decision-making is robust and trustworthy (DM § 3.4(A)(2); handbook §1.4). In the same section, the departmental manual also mentions the importance of documenting and sharing which scientific information is used in agency decision-making. However, the policy does not discuss how it will ensure that the best available science is incorporated into agency decision-making processes.

Science Communication

Timeliness: The DOI policy requires employees to communicate the results of scientific activities in a timely manner (DM § 3.7(A)(2)).

Press: The policy contains general language indicating that it is the DOI's policy to provide procedures that ensure scientists are able to speak to the media and the public "about scientific matters based on their official work and areas of expertise" (DM § 3.4(A)(7). However, the policy does not have information about these procedures.

Social media: The DOI policy does not address social media use, but the DOI has a separate digital media policy.

Testifying before Congress: While the policy does not state that agency scientists have a right to testify before Congress, this right is protected by federal law.

Right of scientists to review and/or correct agency communications: The DOI policy does not address scientists' right to review or correct agency communications or publications referencing their work or attributing them as authors.

Publishing and lecturing: DOI's policy does not address scientists' right to publish or lecture about their work.

Scientific societies: DOI's policy states that "The Department encourages employees to participate in outside professional organizations when it advances the Department's mission, programs, and operations, and when that participation enhances their professional development" (DM § 3.9).

Chapter V of the handbook has information for employees who wish to serve as a director or officer in an outside organization. Such service requires departmental approval if it is to be done in the employee's official capacity. If it is in a personal capacity, some restrictions such as conflicts of interest apply.

Employees must also get prior approval if they wish to serve as officers or board members of an outside organization that is a prohibited source. In broad terms, a prohibited source is an organization that may present some kind of conflict of interest, for example if it receives funding from the DOI or has business before the agency.

Opinion statements: DOI's policy does not address scientists' right to make public statements of personal opinion.

Hiring Practices

The DOI policy does not address hiring practices.

Federal Advisory Committees

Unlike some other agencies, the DOI policy does not address the role of Federal Advisory Committees in scientific integrity at the agency.

Whistleblower Protections

According to the DOI policy, employees "may be protected from reprisal for disclosing alleged scientific misconduct or a loss of scientific integrity under federal law. Employees who are found to have engaged in reprisal may be subject to discipline under 370 DM 752: Discipline and Adverse Actions (DM § 3.4(C)). This is not strong language, but it recognizes the potential applicability of federal whistleblower statutes.

3 WHO DOES THE POLICY GOVERN?

The DOI policy applies to all employees, including political appointees, when they are engaged in, supervising, managing, or influencing scientific activities, when they are publicly communicating information about DOI scientific activities, or when they are using scientific information to make DOI policy, management, or regulatory decisions (handbook § 1.2).

The policy also applies to outside parties that assist in developing or applying the results of scientific activities. This provision covers contractors and grantees, as well as cooperators, partners, permittees, lessees, and broadly "group[s], organization[s], or individual[s]" who provide goods or services to, or otherwise interact with the Department under the auspices of a written agreement (DM § 3.5(F)). It further applies to all volunteers who assist with developing or applying the results of scientific activities (DM § 3.2(A) & (B)).

4 WHAT IS THE PROCESS FOR FILING A COMPLAINT?

This guide is not a substitute for legal advice about any specific situation. If you are considering filing a scientific integrity complaint, or are the subject of a complaint, please contact the Climate Science Legal Defense Fund or another attorney for advice about your particular circumstances. Nonetheless, we will provide below general information about what the process may entail.

Who can make a claim under the policy?

The policy states that "any person or organization... may file a complaint claiming scientific misconduct and/or a

loss of scientific integrity for scientific activities performed on behalf of DOI" (DM § 3.8(A)(1)). However, the policy states that it does not create any rights that a party may enforce, making it unclear what would happen if someone attempted to enforce the policy in court (DM § 3.2(C)).

Where and how can a scientist make a claim?

A complaint must be in writing, and submitted to the Office of Executive Secretariat and Regulatory Affairs (OES) either by email or by the postal service (DM § 3.8(A)(2)).

What should a complaint contain?

- The name and signature of the person submitting the complaint and their affiliation (if any)
- The name of the person(s) or organization alleged to have committed the violation of scientific misconduct or the loss of scientific integrity
- A statement of facts such as dates, locations, and actions that support the complaint, as well as when and how the complainant learned these facts
- An explanation of how the criteria for misconduct and/or loss of scientific integrity are met, including for the loss of scientific integrity:
  - Citations or other information identifying the accepted practices of the relevant scientific community
  - An explanation of how the alleged actions constitute a significant departure from those practices
  - An explanation of any conflict(s) of interest that the complainant has with the subject(s), entity(ies), or situation(s) named in the complaint
- A statement indicating whether the complainant also submitted any of the facts of their complaint elsewhere, such as the Office of Ethics, a Human Resources Office, Office of Special Counsel, or the Office of Inspector General (OIG) (DM § 3.8(A)(3)).

Is there a deadline for filing a complaint?

A complaint must be submitted within 60 calendar days of the date the complainant learned about the potential scientific misconduct and/or loss of scientific integrity (DM § 3.8(A)(2)).

5 WHAT HAPPENS AFTER A COMPLAINT IS FILED?

Who investigates?

Section 3.8 of the departmental manual describes what should occur once a complaint is filed. When a complaint is received, the Office of Executive Secretariat and Regulatory Affairs (OES) will open a file and refer the complaint to the Scientific Integrity Officer for the relevant DOI bureau or to the DOI Scientific Integrity Officer if multiple bureaus or the Office of the Secretary of the Interior are involved.

The SIO handling the complaint will conduct an initial review of timeliness and completeness of the complaint, and assess whether the complaint alleges a viable claim of scientific misconduct or loss of scientific integrity. If the complaint involves matters that are also in the purview of the Office of the Inspector General or some other complaint process, the SIO must coordinate investigative responsibilities with the relevant office(s).

The SIO will conduct an inquiry if the initial review indicates that the complaint is timely, complete, and has merit. The inquiry should involve gathering relevant records, documents, and other materials, interviewing witnesses and, if appropriate, retaining the assistance of subject matter experts.

Within 10 days after an inquiry is initiated, the SIO must notify the subject or subjects in writing that a complaint has been filed and describe the nature of the claims against them. Subjects should be allowed to provide a statement and other materials they believe are relevant.

At any point during the inquiry, the SIO may request that a Scientific Integrity Review Panel be convened to assist with fact finding and review. The SIO must request that a panel be convened if the complaint is against a bureau head or an employee in the Office of the Secretary. The SIO recommends the panelists and chairperson for a review panel, subject to the approval of the non-political deputy bureau director or equivalent.

The DOI policy differs from the policies of many other scientific agencies by articulating a test and an evidentiary standard for a finding of loss of scientific integrity. For the SIO to determine that a loss of scientific integrity has occurred:

- There must be a significant departure from accepted practices or standards of the relevant scientific community.
- The actions causing the scientific misconduct or loss of scientific integrity must be committed intentionally, knowingly, or recklessly.
- The actions must be proven by a preponderance of evidence.

Is the confidentiality of the parties protected?

The DOI requires that all employees involved in the inquiry maintain confidentiality to protect the person who submitted the allegation throughout the inquiry. If a review panel is convened, the chairperson of the panel must advise panel members of the importance of keeping materials and discussions related to the alleged misconduct confidential and not share or release information to anyone outside the panel (DM §§ 3.8(C)(3) and (D)(6)).

How long will the investigation take?

Within 45 days of receipt of the complaint, the review panel will provide the SIO a final report. It may recommend changes in policy and other related issues, but may not recommend specific personnel actions or other corrective measures (DM § 3.8(D)(8)).

Within 90 calendar days of the complaint's referral, the SIO must issue a report of inquiry that contains: 1) a record of all the evidence relied upon, 2) findings of fact that reference the evidence of record, and 3) a determination as to whether scientific misconduct or loss of scientific integrity occurred and an explanation of the reasons for the determination. The time for completing this report may be extended by the SIO by up to 60 days (DM § 3.8(E)).

Do the parties have a right to a hearing?

The DOI policy does not address whether either party has a right to a hearing.

Do the parties have a right to respond to the findings of the investigation?

The DOI policy does not address whether either party has a right to file any response to the findings of the investigation.

6 WHAT HAPPENS AFTER THE INVESTIGATION ENDS?

DOI's policy gives the subject of the complaint (but not the complainant) the right to file a request for reconsideration with the SIO if there is new information to present. This request must be submitted to OES within 14 days of receiving the notice of the finding (DM § 3.8(G)).

If a loss of scientific integrity is found, who decides what the resolution/remedy should be?

The DOI policy does not address who should decide what the appropriate resolution or remedy should be if a loss of scientific integrity is found, and it does not provide guidelines or standards for how determinations are made.

Do the parties have the right to appeal if initial decision is not in their favor?

DOI's policy does not address whether either party has the right to appeal to another body in the event of an adverse decision by the SIO. However, there are provisions to ensure that a request for reconsideration need not be made to the same SIO who decided the outcome. If the request for reconsideration involves a matter previously decided by the department SIO initially assigned to the case, the Deputy Secretary must designate another SIO to consider the request. The SIO must make a final decision on a request for reconsideration within 30 calendar days of receipt or assignment (DM § 3.8(G)).

What are the penalties for misconduct?

The DOI policy does not describe any specific penalties of a loss of scientific integrity is determined. Nor does it specify how, or by whom, any penalties are decided.

7 ADDITIONAL RELEVANT POLICIES AND PROCEDURES

- DOI Digital Media Policy

8 DOI'S SUBORDINATE BUREAUS

The DOI is a cabinet-level agency and parent agency of nine technical bureaus. We examined two of these technical bureaus, the National Park Service (NPS) and the United States Geological Survey (USGS) to determine how their policies relate to the DOI policy.

In general, the policies of NPS and USGS mirror those of the DOI with minor differences in structure. For example, the DOI and USGS policies each contain an introductory section that summarizes the policy in broad and high-level terms. The DOI and USGS policies also have sections defining certain terms used in the policy (the DOI policy defines more terms than the USGS policy).

The policies are very similar in terms of substance. Portions of the policies use identical or nearly identical language and the NPS and USGS policies reference the DOI policy throughout. As a result, neither NPS or USGS have developed policies that extend in meaningful ways beyond the DOI policy.

The NPS and USGS policies simply refer to the DOI policy in multiple places, leading to additional complications for scientists at these agencies, who must navigate multiple documents from multiple agencies in order to understand the policies that apply to them. This is particularly true for the procedures for handling a complaint. While sub-agencies like NPS and USGS have their own scientific integrity policies, the policy of the parent agency is also relevant.

If scientists have questions about these policies, they should consult with the Climate Science Legal Defense Fund, with a similar organization, or with their agency SIO.

9 REPRESENTATIVE CASES AND OUTCOMES

The DOI provides summaries of resolved scientific integrity cases.

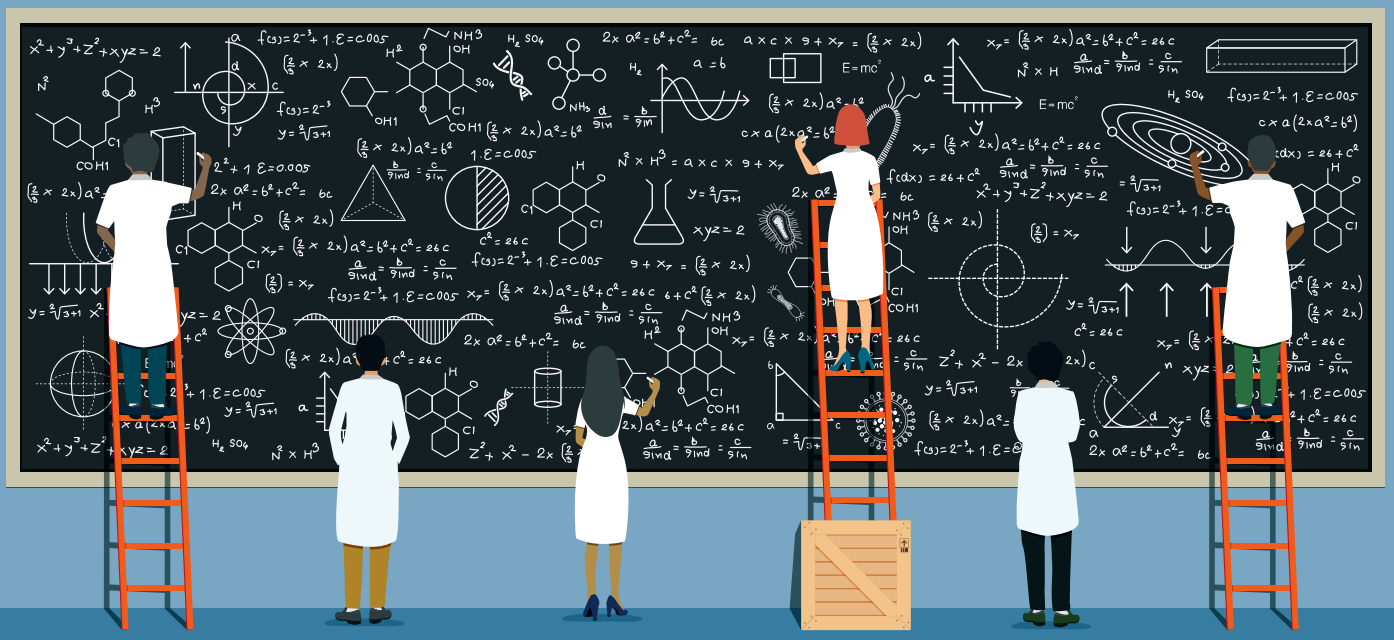
The following examples demonstrate trends gleaned from the summaries.

A complaint will be assigned to the bureau within DOI from which it originates. A 2018 complaint alleged that colleagues plagiarized a researcher's experimental design and subsequent publication on avian influenza.

Because the complaint originated from the USGS, it was referred to the SIO for the USGS, who found that the experimental design and publication were not attributable to the complainant. Therefore no scientific misconduct was found and the case was closed.

The SIO may seek a mutually agreeable informal resolution. A complaint alleged in 2019 that a Bureau of Reclamation (BOR) researcher committed plagiarism by submitting three reports for publication without properly crediting a co-author. During the course of the BOR SIO's preliminary review, the two parties agreed to work together to resolve the authorship dispute. They reached a mutually satisfactory agreement so the SIO found no loss of scientific integrity and closed the case.

"Difference of opinion" as a common response to claims of censorship. A complaint made in 2019 originated in the National Park Service (NPS) and alleged, among other things, that the term "anthropogenic gases" was removed from a climate change strategic plan, and that employees were directed not to use the concept of human-caused climate change in tweets, emails, planning documents, and other communications. The NPS SIO conducted a full inquiry and found "general disagreement about specific language to be included in various reports, plans or talking points." But none of this provided evidence of a departure from accepted practices or standards, or an intent to alter science. The case was closed with no finding of loss of scientific integrity.



A QUICK GUIDE TO THE SCIENTIFIC INTEGRITY POLICY AT THE

Department of State (DOS)

DOS Table of Contents

1 SUMMARY

The DOS addresses scientific integrity in its Foreign Affairs Manual on Scientific Integrity in (referred to as the policy in this guide and cited as 11 FAM 820 et seq.) The DOS policy has its strengths: It uses clear language, it's well organized, and it defines what behaviors compromise scientific integrity. These behaviors include using scientific studies in decision-making that don't reflect current scientific knowledge; misrepresenting, suppressing, or altering scientific findings during the decision-making process; and altering or misrepresenting scientific findings in public communications (11 FAM 823). The policy also has detailed guidance on communicating DOS science and encourages all aspects of professional development for DOS scientists.

There are ways the DOS could improve its scientific integrity policy, which emphasizes the use of science and technology in DOS policy-making decisions. As an agency with a focus on policy-making and not research, this is appropriate. However, the policy fails to address research misconduct—a significant oversight given that the DOS oversees scientific research.

The policy gives scientists less freedom to communicate about their work with the press than other federal agencies, requiring all communications about research to be first cleared by the DOS Bureau of Public Affairs. The policy fails to address the procedures for investigating compromises of scientific integrity. While it links to various channels for general misconduct investigations within the DOS, the failure to address specific procedures for investigating scientific integrity violations is a serious omission.

2 WHAT DOES THE POLICY GOVERN?

Research Misconduct

The policy does not define or address research misconduct.

Conflicts of Interest

The policy does not define conflicts of interest; it states that the policy does not supersede the provisions of federal statutes or regulations, including avoidance of conflicts of interest. It references the section of the Code of Federal Regulations (CFR) that addresses conflicts of interest as an example but does not link to this provision (11 FAM 824.2 (b)).

Political Interference

The policy prohibits attempts to alter or suppress the use of scientific or technological findings in decision-making processes. It states that individuals working for the DOS should uphold this standard (FAM 824.3(c)). The policy reiterates this stance in discussing DOS communications with the press, saying that individuals

working for the DOS should ensure that the scientific or technological findings used in communications are not altered, misrepresented, or suppressed (11 FAM 825.2).

Threats and Intimidation

The policy does not explicitly address threatening or intimidating researchers, but such actions may be covered by the provisions noted under "Political Interference."

Use of Science in Agency Decision-Making

The policy has a provision on the role of scientific integrity in decision-making processes. The policy states that individuals working for the DOS should ensure that the underlying assumptions, uncertainties, and probabilities of scientific and technical data are accounted for and communicated during a decision-making process. It also says that when scientific or technical information is considered in policy decisions, that information should be representative of the current state of the science, evidence-based, and subject to established scientific processes such as peer review (11 FAM 824.3 (a) and (b)).

Science Communication

Timeliness: The policy does not address the timeliness of scientific communications.

Press: According to the policy, all communications to the media or public on scientific topics, policies, and research must be cleared by the DOS Bureau of Public Affairs (11 FAM 825.1). This requirement limits scientists' ability to communicate their research to the public, although this may be due to the confidential nature of their work. DOS public affairs offices decide whether to fulfill interview requests and other public information activities.

DOS employees must ensure that no attempts are made to alter, suppress, or misrepresent scientific findings in public communications (11 FAM 825.2). The DOS will ensure the person authorized to respond to media requests is qualified to speak on the scientific or technological aspects of the work in question and can do so in an objective, nonpartisan way (11 FAM 825.5(a)).

If a DOS employee is contacted directly by a journalist, the employee should refer the journalist to the appropriate bureau contact for public affairs (11 FAM 825.5(b)). A DOS scientist may speak to the media or the public about their official work, however, they must do so according to DOS policies on Review of Public Speaking, Teaching, Writing, and Media Engagement and Remarks and Writings for the Media and General Public (both referenced in the policy). These generally require that public statements made in an employee's official DOS capacity or on topics of DOS concern be pre-approved.

Social media: The policy does not address social media. However, it references the DOS policy, Review of Public Speaking, Teaching, Writing, and Media Engagement, which has guidelines for social media use.

Testifying before Congress: While the policy does not state that agency scientists have the right to testify before Congress, this right is protected by federal law.

Right of scientists to review and/or correct agency communications: The policy does not address whether DOS scientists have the right to review or correct agency communications that discuss or rely on their work. Yet scientists at other federal agencies have the right to review DOS documents that depend on their data, analyses, or research results to make sure the science is accurately interpreted and represented (11 FAM 825.6).

Publishing and lecturing: DOS scientists are allowed to publish in scientific journals and present at public or professional meetings as long as they follow the guidelines in the DOS policy, Review of Public Speaking, Teaching, Writing, and Media Engagement.

Scientific societies: DOS scientists are encouraged to participate in professional societies and other organizations that enhance their professional development, especially when their participation advances the DOS's mission. DOS scientists can serve as editors or editorial board members of scholarly journals as long as specific requirements are met. However, employees should work with the Bureau of Public Affairs to determine whether a disclaimer is necessary (11 FAM 827(4)).

Opinion statements: According to the policy, unofficial activities—speaking, writing, or teaching in a private capacity outside U.S. government property or work hours—on a topic of official concern (defined as activities or topics that may be interpreted as relating to the current responsibilities, interests, programs, or operations of the DOS) must be approved by public affairs officers and require a disclaimer. Unofficial activities on matters not of official concern do not require review (11 FAM 825.4).

Hiring Practices

It is DOS policy that the selection of candidates for scientific positions be based primarily on their scientific and technical knowledge, credentials, experience, and integrity (11 FAM 827(1)).

Federal Advisory Committees

According to the policy, the DOS uses Federal Advisory Committees and references the DOS policy on Federal Advisory Committees, but does not provide information about their use (11 FAM 826).

Whistleblower Protections

The policy cites the Whistleblower Protection Act (WPA) and other existing protections in federal laws for whistleblowers, but it does not provide additional rights or protections for whistleblowers (11 FAM 828(c)).

3 WHO DOES THE POLICY GOVERN?

The policy applies to all Civil Service and Foreign Service employees, political appointees, fellows, interns, contractors, and locally-employed staff who:

- Use scientific information in decision-making processes
- Communicate science and technology policy or scientific topics
- Serve on or select members of advisory panels that address scientific or technical issues
- Manage or support portfolios that include environment, science, technology, and health (ESTH) or engineering topics
- Evaluate proposals for grants, foreign assistance, contracts, or cooperative agreements for ESTH activities
- Facilitate scientific cooperation between government, academic, private institutions, or non-governmental and civil society organizations
- Develop positions on ESTH issues in bilateral and multilateral negotiations (11 FAM 824.2)

4 WHAT IS THE PROCESS FOR FILING A COMPLAINT?

The policy does not address the filing, investigation, or resolution of scientific complaints. While it describes general ways to prevent and report compromises of scientific integrity (including reporting up the chain of command, the Civil Service and Foreign Service Grievance System, the Dissent Channel, and reporting to the Office of Inspector General), these mechanisms are broad. and encompass various kinds of DOS policy violations (11 FAM 828(b)).

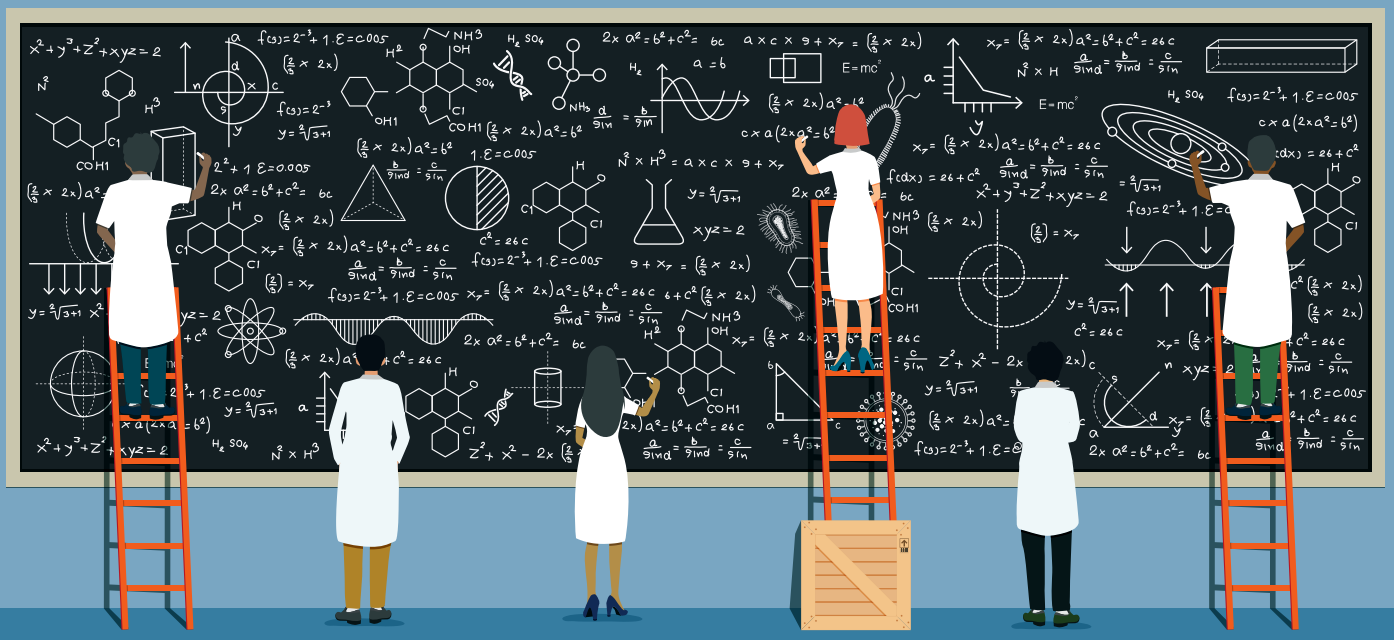
A shortcoming of the DOS policy is its failure to mention how allegations of scientific integrity violations are addressed.

5 ADDITIONAL RELEVANT POLICIES AND PROCEDURES

- Remarks and Writings for the Media and General Public
- Review of Public Speaking, Teaching, Writing, and Media Engagement
- Federal Advisory Committees
- Reporting to the Office of Inspector General

6 REPRESENTATIVE CASES AND OUTCOMES

DOS does not appear to make public the outcomes of investigations into alleged scientific integrity violations.



A QUICK GUIDE TO THE SCIENTIFIC INTEGRITY POLICY AT THE

Environmental Protection Agency (EPA)

EPA Table of Contents

1 SUMMARY

The U.S. Environmental Protection Agency scientific integrity policy (referred to in this guide as the policy and SIP) covers plagiarism, manipulation of data, and other standard types of research misconduct. The policy also recognizes that science communication is part of scientific integrity. The policy protects researchers' rights to discuss their work without political interference or censorship, and to participate in professional development activities. The EPA is more transparent than some other agencies about scientific integrity issues, publishing summaries of the scientific integrity complaints it receives and how it addresses them online.

However, the policy would be stronger if it specified procedures and timelines for investigating scientific integrity complaints, and ensured that the parties involved in a complaint have rights of appeal and recourse to independent bodies in the event of a negative decision.

2 WHAT DOES THE POLICY GOVERN?

Research Misconduct

The policy prohibits employees from engaging in research misconduct. This is defined as fabrication, falsification, or plagiarism in proposing, performing, or reviewing scientific and research activities, and in the publication or reporting of these activities. Misconduct does not include honest errors and differences of opinion (SIP § IV(A)(1)).

Conflicts of Interest

The policy has a few general references to avoiding conflicts of interest, but it does not set out any specific definitions or guidelines regarding these in the context of scientific integrity.

Political Interference

Multiple portions of the EPA policy are relevant to protecting scientists from political interference with their work. All EPA employees, including managers and other agency leadership, are prohibited from suppressing, altering, or otherwise impeding the timely release of scientific findings or conclusions (SIP § IV(A)(1)).

Public affairs staff are prohibited from attempting to alter or change scientific findings or results—an important step beyond prohibiting only the actual altering or changing of scientific findings (SIP § IV(B)(3)). These are crucial protections for scientists and scientific integrity; the failure to apply them to all EPA employees is a significant oversight in the policy.

Threats and Intimidation

Managers and others in leadership positions are prohibited from intimidating or coercing scientists into altering scientific data, findings, or professional opinions (SIP § IV(A)(3)).

Use of Science in Agency Decision-Making

The background section of the policy begins with the broad statement that "Science is the backbone of the EPA's decision-making." While none of the provisions in the policy explicitly address how science should be used in agency decision-making, section IV(A)(3) prohibits EPA managers and other agency leadership from inappropriately influencing scientific advisory boards, which advise the agency on the science it should incorporate into its decision-making, as well as when and how. Policy-makers are also prohibited from knowingly misrepresenting, exaggerating, or downplaying areas of scientific uncertainty associated with policy decisions.

Science Communication

According to the policy, "While a scientist's primary responsibility is to pursue their scientific activities, it is also a scientist and his/her manager's responsibility to provide timely responses to requests for information by the media, the public, and the scientific community" (SIP § IV(B)(1).

Timeliness: Section IV(B)(1) of the policy repeatedly emphasizes that presenting and disseminating scientific results and information in a timely way is an important aspect of scientific integrity.

Press: The intent of the policy is to ensure that EPA scientists are able to communicate openly with the press about their research. EPA scientists and managers are expected to "be available to answer inquiries from the media regarding their scientific work," although the policy does not grant any explicit right to contact the press. Scientists must notify their managers when communicating in an official EPA capacity and "notify and coordinate with appropriate agency offices that might receive public inquiries to ensure that scientific information for the general public and media is clearly, comprehensively, consistently, and accurately presented and explained" (SIP § IV(B)(1)).

The policy requires public affairs staff to coordinate with scientists regarding media inquiries about their research or other scientific activities. According to the policy, the relevant public affairs staff "should attend interviews with members of the media, when possible." This could have a chilling effect on scientist's communications with the media by making them feel they cannot speak freely.

Social media: The policy does not address social media use. However, the EPA has a separate social media policy.

Testifying before Congress: While the policy does not state that agency scientists have a right to testify before Congress, this right is protected in other EPA policies as well as by federal law. The policy implicitly acknowledges a scientist's right to testify before Congress, and the importance of that right in maintaining scientific integrity, when it mentions that EPA scientists should coordinate with the EPA Office of Congressional and Intergovernmental Relations (OCIR) to respond to congressional inquiries in an open and timely manner (SIP § IV(B)(4)).

The policy seems to acknowledge that EPA scientists have the right to testify before Congress in their official capacity, although it says that OCIR staff should review any prepared testimony. Congressional and program/regional offices should provide statements that address policy-related questions (rather than scientific questions).

Right of scientists to review and/or correct agency communications: According to the policy, scientists and managers are expected to, "[r]eview, correct, and approve the scientific content of any proposed agency document intended for public dissemination that significantly relies on their research, identifies them as an author, or represents their scientific opinion" (SIP § IV(B)(1).

The same section provides guidance on the procedures for handling disputes involving content intended for public distribution. Such disputes "will be resolved first by the employees' direct supervisors, and if necessary, the Office of External Affairs and Environmental Education (OEAEE) and the Deputy Scientific Integrity Official or his/her designee."

Publishing and lecturing: The EPA considers professional development of scientists to be a key part of scientific integrity, according to the policy. EPA scientists are encouraged to publish and present their findings in peer-reviewed, professional, or scholarly journals and at scientific meetings; and to become editors or editorial board members of peer-reviewed, professional, or scholarly journals (SIP § IV(D)).

Scientific societies: EPA scientists are encouraged to actively participate in professional societies, including serving as officers or on the governing boards of such societies (SIP § IV(D)).

Opinion statements: The policy protects scientists' right to publicly express their personal opinions. Scientists and managers are free to express personal opinions, but must clearly state that they are expressing their personal view, not that of the EPA (SIP § IV(B)(1)). The following disclaimer language must be used when presenting scientific information on matters that do not reflect their official agency scientific activities and direct responsibilities:

> The views expressed in this [article/chapter/paper/speech] are those of the author(s) and do not necessarily reflect the views or policies of the U.S. Environmental Protection Agency.

Hiring Practices

The policy only says that it "ensures that the selection of candidates for scientific positions is based primarily on their scientific and technical knowledge, credentials, experience, and integrity" (SIP § IV(A)(2)). The policy provides no detail about how it this is achieved.

Federal Advisory Committees

More than some other agencies, the EPA policy makes clear that Federal Advisory Committees (FAC) are "an important tool within the EPA for ensuring the credibility and quality of Agency science" (SIP § IV(C)(2)).

The policy sets out several procedures intended to ensure the quality and transparency of FACs, including publication of vacancy announcements and biographical information of committee members, and selection of members based on their expertise and contributions to the relevant subject area. Any products developed by an FAC are the findings of the committees and not of the EPA, and are therefore not subject to agency revision.

Whistleblower Protections

The policy extends whistleblower protections to "all EPA employees who uncover or report allegation of scientific and research misconduct, or who express a differing scientific opinion" (SIP § IV(A)(3)).

The EPA Order on Policy and Procedures for Addressing Research Misconduct (referred to in this guide as order on research misconduct or Order) also deals with whistleblower protections. It states that an EPA employee is protected from retaliation for making a complaint or disclosure to the Inspector General, unless the complaint or disclosure was made with the knowledge that it was false or with willful disregard for its truth or falsity (Order 3120.5 ¶ 9(A)(ii)(b)).

However, the policy does not appear to extend whistleblower protections to employees who come forward with issues other than traditional research misconduct, such as those who report being threatened or pressured, having their work altered or censored, or being prevented from speaking to the press or attending conferences.

3 WHO DOES THE POLICY GOVERN?

All EPA employees, including scientists, managers, and political appointees, are required to follow the policy when:

- Engaging in, supervising, managing, or influencing scientific activities
- Communicating information in an official capacity about EPA scientific activities
- Utilizing scientific information in making EPA policy or management decisions

A looser standard applies to EPA contractors, grantees, collaborators, and student volunteers who engage in scientific activities. They are expected (rather than required) to uphold the standards established by the policy and may be required to do so as part of their agreements with EPA (SIP § III).

The order on research misconduct, which is relevant to scientific integrity, applies to all research "conducted, sponsored or funded, in whole or in part, by EPA and to research proposals submitted to EPA" (Order 3120.5 ¶ 3). This presumably includes all research conducted pursuant to an EPA grant or contract.

4 WHAT IS THE PROCESS FOR FILING A COMPLAINT?

This guide is not a substitute for legal advice about any specific situation. If you are considering filing a scientific integrity complaint, or are the subject of a complaint, please contact the Climate Science Legal Defense Fund or another attorney for advice about your particular circumstances. Nonetheless, we will provide below general information about what the process may entail.

Who can make a claim under the policy?

The policy has no information about whether there are restrictions regarding who can file a scientific integrity violation claim. Thus, presumably anyone—whether or not they are associated with the EPA at all—may file a claim with the EPA Scientific Integrity Officer if he or she believes a violation of the policy has occurred.

It is not clear whether a member of the public who claims a violation of scientific integrity at the EPA can successfully petition a court to review the EPA's handling of such a claim. Section III of the policy states "[This policy] does not create any obligation, right or benefit for any member of the public, substantive or procedural, enforceable by law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees or agents, or any other person."

Where and how can a scientist make a claim?

The EPA encourages employees with a scientific integrity concern to seek early advice from the Scientific Integrity Official or a Deputy Scientific Integrity Official. Allegations of a loss of scientific integrity may be reported to the Scientific Integrity Official, any Deputy Scientific Integrity Official, or the Office of Inspector General (OIG) (see the EPA's Basic Information About Scientific Integrity>Reporting an Allegation).

What should a complaint contain?

An allegation of scientific and scholarly misconduct or loss of integrity should contain the following:

- The name, affiliation, and signature of the person(s) submitting the allegation and the name and organization of the person(s) alleged to have committed the misconduct or actions leading to the loss of integrity. If submitted electronically, it must be from an email address readily linked to the identity of the person submitting.
- A description of the alleged misconduct or loss of integrity that includes the date, circumstances, and location of the incident.
- An explanation of how the allegation relates to scientific and scholarly misconduct or loss of integrity and that demonstrates the impact of the alleged misconduct or loss of integrity.
- A statement explaining any personal or professional extenuating circumstances, non-scientific disagreements, or conflict(s) of interest the person making the allegation has with the subject(s), entity(ies), or situation(s), named in the allegation.
- A statement indicating whether the allegation is being considered or has been submitted elsewhere, such as another EPA office, or other government office, or a court of law.

Is there a deadline for filing a complaint?

The policy does not include a timeframe in which a report must be made after a person or entity becomes aware of the loss of scientific integrity. However, there is information about time limits in the order on research misconduct (Order 3120.5 ¶¶ 7, 9).

The order on research misconduct states that EPA employees must promptly report allegations of research misconduct by other EPA personnel or by assistance agreement recipients, contractors, or their employees; what constitutes promptness is not defined.

This suggests that EPA employees should generally report scientific integrity violations as soon as possible and that delays may be damaging. Moreover, there are circumstances under which the EPA OIG must be immediately notified of an allegation of research misconduct, such as when:

- Public health or safety is at risk
- EPA resources or interests are threatened
- The circumstances demand suspension of research activities
- There is reasonable indication of possible violations of civil or criminal law
- Federal action is required to protect the interests of those involved with the investigation
- The research entity believes the inquiry or investigation may be made public prematurely, requiring steps be taken to safeguard evidence and protect the rights of those involved
- The research community or public should be informed

5 WHAT HAPPENS AFTER A COMPLAINT IS FILED?

Who investigates?

The policy does not describe the process for investigating a scientific integrity complaint. The closest analog is the order on research misconduct, which suggests that the Scientific Integrity Office might coordinate with the OIG to investigate a scientific integrity complaint.

The order on research misconduct indicates that if research misconduct is alleged at an institution contracting with EPA, that institution will investigate and adjudicate the misconduct (note that these provisions do not apply to scientific integrity complaints more broadly). The order on research misconduct contains broad guidelines for these institutions to follow, such as maintaining fair and objective procedures and protecting informants against retribution, but it imposes few specific requirements.

A contractor who chooses not to conduct an inquiry upon receipt of an allegation of research misconduct is required to notify the OIG, the Contracting Officer, and the Contracting Officer's Technical Representative. The OIG always has the right to intervene or conduct its own investigation, in which case the contractor must suspend its investigation. Similar provisions are made for recipients of assistance agreements.

Is the confidentiality of the parties protected?

The policy is silent on this point. The best guidance is found in the order on research misconduct, which states that the OIG will not disclose the identity of an employee who makes a claim of research misconduct without his or her consent unless disclosure is unavoidable during the investigation (Order 3120.5 ¶ 9(A)(ii)). For EPA employees who are the subject of an allegation, due process safeguards come into effect if and when the agency decides to act on an OIG report.

How long will the investigation take?

The policy does not include requirements for how long an investigation can take.

Do the parties have a right to a hearing?

The policy does not state whether the parties involved have a right to a hearing or can provide rebuttal evidence.

Do the parties have a right to respond to the findings of the investigation?

The policy does not include information about whether the parties have a right to respond to any findings.

6 WHAT HAPPENS AFTER THE INVESTIGATION ENDS?

The policy does not specify who should determine whether there has been a loss of scientific integrity, or who should decide the appropriate resolution or remedy if a loss of integrity is found. Nor does the policy specify whether either party has a right to appeal an adverse decision, or what mechanism would be available for doing so. It is possible that an appendix to the EPA Conduct and Discipline Manual provides some additional relevant information, but this appendix does not appear to be publicly available.

What are the penalties for misconduct?

The policy does not provide information about what penalties are appropriate when a loss of scientific integrity is found, or who makes such a decision. The order on research misconduct has some guidance; it states that the EPA should consider the seriousness of an incidence of research misconduct. However, aside from requiring the EPA to correct the research record in such a circumstance, the order on research misconduct doesn't provide guidance on what penalties or remedies are appropriate, or how or by whom they are determined (Order 3120.5 ¶ 9(A)(iv)).

The order on research misconduct has some information about what the EPA may do in a case of research misconduct by a contractor or the recipient of an assistance agreement. It states that the actions available to the EPA include taking steps to correct the research record, imposing special certification or assurance requirements, and suspending or terminating a contract or assistance agreement (Order 3120.5 ¶¶ 9(B)(iv)(d), 9(C)(iv)(d)).

7 ADDITIONAL RELEVANT POLICIES AND PROCEDURES

- EPA's Principles of Scientific Integrity
- EPA Order 3120.5: Policy and Procedures for Addressing Research Misconduct
- EPA Peer Review Handbook
- EPA Best Practices for Designating Authorship
- EPA Social Media Policy

8 REPRESENTATIVE CASES AND OUTCOMES

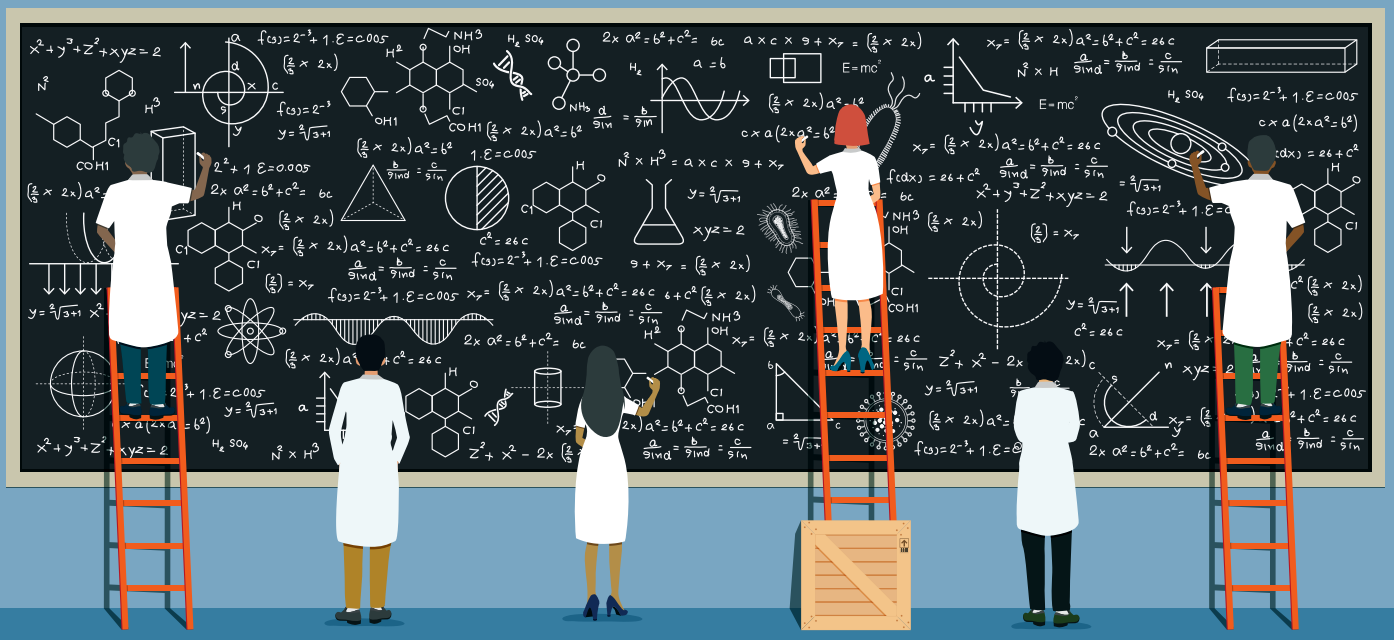
Anonymized summaries of claims of scientific integrity violations filed at the EPA and their resolutions are publicly available. The following examples demonstrate trends gleaned from the summaries.

The SIO will treat concerns about the legitimacy of scientific methods seriously as potential violations of scientific integrity. For example, an EPA employee questioned an OIG investigation into contamination at a group of sites. The employee suggested that the OIG should follow EPA quality assurance/quality control (QA/QC) requirements when generating its own sampling data. The final OIG report acknowledged the regional concerns with the OIG sampling QA protocols.

Delays in the release of scientific information are taken seriously as potential violations of scientific integrity. For example, a staff member alleged that the release of a report under development for several years was being delayed by management. The SIO talked with the manager and the report was promptly released.

The SIO will not find a violation where it discerns a simple difference in legitimate scientific opinions. For example, an EPA employee questioned the validation of data for a monitoring program. This was determined to be a difference of opinion. The employee was given an opportunity to discuss his/her concerns with a cross-regional workgroup. While the consensus disagreed with the employee, he/she was not prevented from discussing his/her opinion, so this was not a violation of the policy.

Expressing a personal opinion that contradicts agency science will not be considered to be a violation. For example, an allegation was submitted to the OIG claiming that the EPA Administrator violated the policy when he said in a television interview that he does not believe that anthropogenic CO2 emissions are the primary contributor to climate change. The OIG referred this allegation to the Scientific Integrity Official. A Scientific Integrity Review Panel found that expressing a personal opinion about science is not a violation of the EPA policy.



A QUICK GUIDE TO THE SCIENTIFIC INTEGRITY POLICY AT THE

National Aeronautics and Space Administration (NASA)

NASA Table of Contents

1 SUMMARY

NASA's scientific integrity policy, Ensuring Scientific Integrity at the National Aeronautics and Space Administration (referred to as the policy and SIP in this guide), states in its introductory statement that scientific integrity is a high priority for the agency, and "NASA policies in support of scientific integrity are robust and have been in place for many years." However, the policy falls short in that it merely indicates how other existing agency policies incorporate the principles of scientific integrity, and fails to provide any specific details about how NASA ensures these principles are upheld.

Instead, the policy consists mainly of a brief discussion of the scientific integrity principles raised in the White House memoranda and links to other NASA policies that support these principles. This means that the agency's scientific integrity policy incorporates a substantial amount of information under its umbrella, but it also makes the policy hard to understand and navigate—especially because, as of the date of this writing, many of the links on the NASA website the policy includes are not correct and site visitors must track them down elsewhere on the site. The policy also fails to put the concept of scientific integrity into context as it relates to these varied policies and does not provide guidance as to how the linked policies interact.

The way the policy addresses public access to scientific data is relatively strong compared to the way some other scientific agencies' policies handle this issue, highlighting NASA's commitment to ensuring such access in a laudable way. Yet NASA addresses many other important principles of scientific integrity only at a basic level, and provides little structure for the oversight or enforcement of those principles. NASA does not appear to have appointed a Scientific Integrity Officer to oversee scientific integrity, rather it incorporates other existing policies and their corresponding oversight roles.

2 WHAT DOES THE POLICY GOVERN?

The NASA policy on scientific integrity does not define the term "scientific integrity." Instead, it primarily summarizes how the concepts NASA considers central to scientific integrity are addressed in other NASA policies, which do not themselves actually discuss scientific integrity. This makes it hard to understand what constitutes a violation of scientific integrity and whether a violation of one of these NASA policies also constitutes a violation of the scientific integrity policy.

This lack of clarity is made worse by the fact that, to the extent NASA's scientific integrity policy points to any procedures for filing and addressing a complaint, those procedures relate only to research misconduct and do not address the broader concept of scientific integrity. This could mean there is no recourse for scientific integrity violations that may fall outside of the narrower definition of research misconduct.

Research Misconduct

The NASA policy refers to a provision in the Code of Federal Regulations (CFR), 14 CFR § 1275 – Research Misconduct, which describes the procedures NASA uses to handle allegations of fabrication, falsification, or plagiarism in proposing, performing, or reviewing research or in reporting research results for any research funded or supported by NASA.

Research misconduct is defined in the section as "fabrication, falsification, or plagiarism in proposing, performing, or reviewing research or in reporting research results. Research misconduct does not include honest error or differences of opinion."

Conflicts of Interest

According to the policy, NASA civil servants are bound by federal restrictions against conflicts of interest and, as with most federal civil servants, NASA scientists must file annual financial disclosure reports and have annual conflict of interest and ethics trainings (SIP at § I.2(c)). The policy also states that scientists participating in NASA peer reviews and NASA research, be they NASA employees or external scientists, must follow documented standards for conflicts of interest. It lists several policies relating to conflicts of interest that apply to some or all NASA employees. Links to these policies are included in Section 7 of this guide.

Political Interference

The results of NASA-funded research must be made available to the scientific community and the public at no cost to them (SIP at § I.3). This is also supported by several additional linked policies). The policy additionally requires scientific and technical information to be "accurate and unfiltered," and 1) prohibits public affairs staff from editing public information products in ways that change scientific data or the meaning of their content, 2) prohibits political officials from suppressing or altering scientific or technological findings, and 3) prohibits public affairs officers from asking or directing federal scientists to alter scientific findings (SIP § II).

Threats and Intimidation

NASA's policy does not address threats or intimidation to science or scientists.

Use of Science In Agency Decision-Making

The NASA policy is focused on the dissemination of information rather than policy-making. But it states that one of its goals for strengthening the actual and perceived credibility of government research is "ensuring that data and research used to support policy decisions undergo independent peer review by qualified experts" (SIP § I.2(b)).

Science Communication

Timeliness: The NASA policy does not specifically reference the need for timeliness in the dissemination of scientific information.

Press: The policy states that NASA is committed to promoting and maximizing openness with the media and NASA information must be made publicly available unless a determination is made that public dissemination of information must be prohibited or restricted (SIP § II). NASA press policies are detailed in 14 CFR § 1213: Release of Information to News and Media. Details can be found in the CFR, but in summary these include:

- NASA will offer articulate and knowledgeable spokespersons who can best serve the needs of the media and the public.
- NASA employees may, but are not required to, speak to the media about their work.
- An employee who wishes to speak to the media is required notify their immediate supervisor and coordinate with the public affairs office in advance of interviews (wherever possible), or immediately afterwards.
- Employees are encouraged to have a public affairs officer present for interviews, whose role is intended to be to support the employee.
- Scientific and technical information about agency programs will be accurate and unfiltered. Edits made by public affairs staff should be done only to ensure public information products are well written and appropriate for the intended audience; they must not change scientific or technical data or content.

Social media: NASA's policy does not mention social media use by employees, and there is no reference to a separate social media policy.

Testifying before Congress: While the policy does not explicitly state that agency scientists have a right to testify before Congress, that right is protected elsewhere in federal law.

Right of scientists to review and/or correct agency communications: NASA's policy does not address scientists' right to review or correct agency communications or publications referencing their work or attributing them as authors.

Publishing and lecturing: The policy emphasizes the importance of sharing scientific findings. It encourages NASA scientists to publish in peer-reviewed, professional, and scholarly journals. It also encourages them to present research findings at professional meetings (SIP § IV.1 and IV.2. These sections also point to additional NASA policies concerning the requirements of NASA scientists to publish and present their work).

NASA scientists are allowed to serve as editors or editorial board members for professional or scholarly journals; this type of service is considered part of their official job duties and, with approval from supervisor, can be carried out as part of their job (SIP § IV.3).

Scientific societies: NASA allows scientists to fully participate in professional societies (SIP § VI.4).

Opinion statements: NASA's policy does not directly address agency scientists' ability to make public statements of their own opinions. However, the section of the CFR on Release of Information to News and Information

Media implies that scientists have the right to communicate their personal opinions publicly when it states that "NASA employees who present personal views outside their official area of expertise...must make clear that they are presenting their individual views—not the views of the Agency..." (14 CFR § 1213.105(d)).

Hiring practices

According to the policy, NASA is committed to "[e]nsuring that the selection of candidates for scientific positions is based primarily on their scientific and technological knowledge, credentials, experience, and integrity" (SIP § I.2). The section of the scientific integrity policy that addresses hiring practices also links to other policies that bolster this commitment by requiring that NASA fill positions available only to internal candidates through competition and on the basis of merit, and also use competitive practices for outside hiring.

Federal Advisory Committees

Unlike some other scientific agencies, NASA's policy explicitly addresses Federal Advisory Committees as part of scientific integrity (SIP § III). While the policy does not dictate specific procedures for the functioning of the committees or the selection of committee members, it does emphasize that selection of members should be based on expertise, knowledge, and contribution to the relevant subject area. It further contains some provisions aimed at ensuring the advisory committees function transparently; it requires, for example, that member vacancies should generally be announced widely so as to include the public in the process, and that professional biographical information about members should be made public, as should instances in which a member is granted a conflict-of-interest waiver.

Whistleblower Protections

The NASA policy states that NASA is committed to implementing existing whistleblower protections in the Whistleblower Protection Act and the Whistleblower Protection Enhancement Act (SIP § I.2(d)). NASA has also developed a Whistleblower Protection Plan that spells out alternative reporting procedures and lists educational opportunities for employees regarding whistleblower protections. This is further than quite a few other scientific agencies go, demonstrating that this is an area of concern for NASA.

3 WHO DOES THE POLICY GOVERN?

The NASA policy itself does not specify who it governs, a significant omission. The different policies it links to do each specify who they apply to; the most relevant example are the rules for dealing with allegations of research misconduct. Those rules apply to research funded wholly or partially by NASA which "includes any research conducted by a NASA installation and any research conducted by a public or private entity receiving NASA funds or using NASA facilities, equipment or personnel" (14 CFR § 1275.100(b)). This may offer some guidance as to who is bound by the requirements of the scientific integrity policy.

4 WHAT IS THE PROCESS FOR FILING A COMPLAINT?

This guide is not a substitute for legal advice about any specific situation. If you are considering filing a scientific integrity complaint, or are the subject of a complaint, please contact the Climate Science Legal Defense Fund or another attorney for advice about your particular circumstances. Nonetheless, we will provide below general information about what the process may entail.

NASA's policy does not provide any details on the process of filing a complaint regarding a loss of scientific integrity, another significant omission. The closest it comes is referencing the rules regarding research misconduct, spelled out in 14 CFR § 1275. However, these rules are specific to research misconduct and do not address scientific integrity violations more broadly. The scientific integrity policy does not summarize or explicitly incorporate these rules, and it is therefore not clear to what extent they would be applied to a scientific integrity complaint.

The rules in the CFR are also not easy to understand, inviting considerable confusion for scientists about how to file a scientific integrity complaint. Nonetheless, below we discuss the processes for filing and addressing claims of research misconduct at NASA, as detailed in 14 CFR § 1275, since they are the closest analog that may shed light on how claims of scientific integrity violations are handled.

Who can make a claim under the policy?

The provisions for handling a claim of research misconduct do not specify who may make a claim.

Where and how can a scientist make a claim?

Allegations of research misconduct concerning NASA research may be made by mail to the NASA Office of Inspector General (OIG), via the OIG hotline, or the OIG cyber hotline. Allegations concerning awardee institutions may be made directly to that organization or to the OIG.

What should a complaint contain?

The provisions do not specify what a complaint should contain.

Is there a deadline for filing a complaint?

The provisions do not specify how long the person making the complaint (known as the complainant) has after learning of the alleged research misconduct to file a complaint.

5 WHAT HAPPENS AFTER A COMPLAINT IS FILED?

Who investigates?

NASA's scientific integrity policy does not specify who should investigate a claim that there has been a loss of scientific integrity. Again, the closest analog that may shed some light on what the investigation process should entail is NASA's policy on addressing claims of research misconduct. That policy specifies that OIG should handle claims of research misconduct. It does not specify whether a panel should be convened to review a complaint, or how such a panel should be constituted.

When a complaint is made, the OIG must begin by determining whether the complaint has described an allegation of research misconduct that falls under its jurisdiction; that is, the OIG must determine whether the allegation: 1) concerns either NASA research or research being conducted by an awardee institution/in collaboration with another institution, and 2) meets the definition of research misconduct (14 CFR § 1275.102 (a)).

If those threshold requirements are met, the OIG should conduct a preliminary inquiry to determine whether a formal investigation is necessary. This inquiry should be completed within 60 days. The policies on handling research misconduct provide essentially no details as to what this inquiry should consist of or how it should be conducted (14 CFR § 1275.104).

Depending on what the inquiry shows, the OIG may launch a formal investigation. When the OIG decides to initiate an investigation, it must promptly notify the individual or institution to be investigated (known as the respondent). The investigation may involve the review of files, documents and other evidence, interviews with parties and witnesses, and the participation of outside consultants and experts (14 CFR § 1275.105).

At the conclusion of the investigation proceedings, the OIG must issue a report that includes recommended findings as to whether research misconduct has occurred. If the OIG recommends a finding that research misconduct occurred, it must also make recommendations for appropriate administrative actions (14 CFR § 1275.105 (e) and (f)).

The policies regarding research misconduct also contain provisions describing how the OIG should proceed if allegations concern research conducted at other institutions. In general, in this case, the OIG should defer any internal investigation or inquiry pending an investigation by the external institution involved. The OIG must receive a report of such an external investigation, and determine whether to accept the investigation and its determination in whole or in part. The OIG must make this determination within 45 days. If the OIG chooses not to accept the external determination, it must initiate its own investigation (14 CFR § 1275.102 (c) and (d)).

Is the confidentiality of the parties protected?

To the extent possible, the identity of sources who wish to remain anonymous are to be kept confidential, and files are to be treated in such a way as to exempt them from disclosure under the Freedom of Information Act (14 CFR § 1275.104(e)).

How long will the investigation take?

An investigation report should be issued within 120 days of the start of the investigation (14 CFR § 1275.105(a)).

Do the parties have a right to a hearing?

If the OIG initiates a formal investigation into alleged research misconduct, that investigation may include "an opportunity for the respondent to be heard." Such an opportunity does not appear to be guaranteed, and there is no provision for an opportunity for the complainant to be heard (14 CFR § 1275.105(b)(6)).

Do the parties have a right to respond to the findings of the investigation?

The OIG should provide a draft of the investigation report to the respondent, who can submit comments within 20 days of receiving the draft. Any comments submitted by the respondent will receive full consideration in the final investigation report (14 CFR § 1275.105(d)).

6 WHAT HAPPENS AFTER THE INVESTIGATION ENDS?

The investigation report and recommended actions are sent to the NASA Adjudication Officer. The Adjudication Officer may then initiate further actions, which may include offering the respondent another opportunity to comment before issuing a decision about the case. The Adjudication Officer may also return the investigation report to the OIG with a request for further fact finding or analysis.

Upon review, based on a preponderance of the evidence, the Adjudication Officer shall issue a decision as to whether research misconduct has taken place and, if so, the appropriate administrative actions to take. The Adjudication Officer must issue the decision within 30 days of receipt of the investigation report (14 CFR § 1275.107).

If a loss of scientific integrity is found, who decides what the resolution/remedy should be?

The Adjudication Officer issues the recommendation for appropriate administrative actions to be taken by NASA.

Do the parties have the right to appeal if initial decision is not in their favor?

The Adjudication Officer's decision is sent to the respondent and, if appropriate, to the complainant (although there is no indication of when it is or is not appropriate to send the decision to the complainant).

The respondent may appeal the decision by notifying the NASA Appeals Official (who is generally the NASA Deputy Administrator) within 30 days of receiving the decision. There is no procedure for the complainant to appeal a finding of no misconduct.

The NASA Appeals Official must notify the respondent of their decision to affirm, overturn, or modify the decision of the Adjudication Official within 30 days of receiving the appeal (14 CFR § 1275.108 (a) and (b)).

What are the penalties for misconduct?

Section 1275.106(a) of the CFR contains recommendations for administrative actions that may be necessary to correct research misconduct. These include:

- A letter of reprimand
- Requiring special prior approval from NASA for activities
- Requiring an official certify the accuracy of reports
- Restricting activities under a research award
- Requiring approval for requests for funding from affected the individual, department, or institution to ensure steps have been taken to prevent a repeat of the misconduct
- Suspending or terminating an active award
- Debarring or suspending an individual, department, or institution from participating in NASA programs for a specified period of time

7 ADDITIONAL RELEVANT POLICIES AND RESOURCES

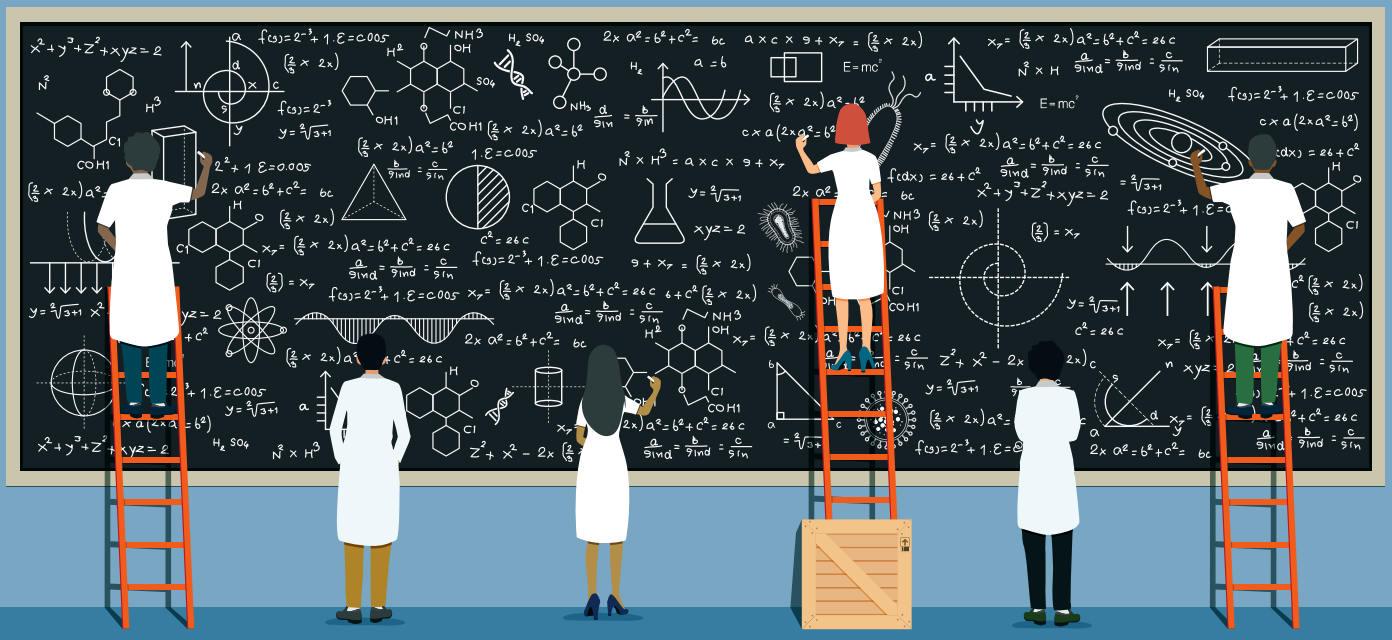
The policy incorporates a significant number of other relevant policies including, but not limited to:

- NASA Policy Directive (NPD) 1000.0A: NASA Governance and Strategic Management Handbook
- NPD 1080.1: Policy for the Conduct of NASA Research and Technology
- NPR1080.1, Requirements for the Conduct of NASA Research and Technology
- 14 CFR § 1275: Research Misconduct
- NPR 3335.1: Internal Placement of NASA Employees
- 5 CFR § 300.102: Employment Practices
- NPD 1000.0A: NASA Governance and Strategic Management Handbook
- NPR 7120.8: NASA Research and Technology Program and Project Management Conduct
- NPR 2200.2: Requirements for Documentation, Approval, and Dissemination of NASA Scientific and Technical Information
- 14 CFR § 1213: Release of Information to News and Information Media

- Guidebook for Proposers Responding to a NASA Research Announcement or Cooperative Agreement Notice
- Science Mission Directorate Policy Document (SPD)-01: Handling Conflicts-of-Interest for Peer Reviews
- SPD-05: Preventing Financial Conflicts for IPA Employees (not publicly available)
- Human Research Program (HRP)-47053: Science Management Plan

8 REPRESENTATIVE CASES AND OUTCOMES

Unlike some other scientific agencies, NASA does not appear to make the outcomes of past cases public.



A QUICK GUIDE TO THE SCIENTIFIC INTEGRITY POLICY AT THE

National Institutes of Health (NIH)

NIH Table of Contents

1 SUMMARY

The National Institutes of Health Policies and Procedures for Promoting Scientific Integrity (referred to as the policy and SIP in this guide) has notable strengths. NIH funds external research and conducts research, and the policy is separated into two sections, so it is clear which provisions apply to which type of research.

NIH developed the policy so the public understands how the agency addresses scientific integrity. It focuses on disseminating NIH research and has detailed provisions to ensure that research findings are easily accessible to the public. It uses clear language, and serves a secondary purpose of bringing together all NIH policies without being overwhelming or confusing.

For internal or intramural research, the policy works with Guidelines and Policies for the Conduct of Research in the Intramural Research Program at the NIH (referred to in this guide as the guidelines).

For external or extramural research funded by NIH, the policy stands alone and does not work with another NIH set of guidelines.

The policy also has weaknesses. Sections are not numbered or sequentially labeled, making it difficult to navigate. The policy fails to define scientific integrity or describe procedures for investigating allegations of scientific integrity violations. While the policy links to a detailed, well-organized manual for investigating claims of research misconduct, it is unclear what would happen if there's a scientific integrity violation at the NIH that doesn't constitute research misconduct.

2 WHAT DOES THE POLICY GOVERN?

Research Misconduct

Extramural research. The policy defines research misconduct as fabrication, falsification, or plagiarism in proposing, performing, or reviewing research or reporting research results (defined in 42 CFR, Part 93). Research misconduct does not include honest errors or differences of opinion. According to the policy, the NIH and institutions that receive NIH funding must have policies and procedures for addressing research misconduct allegations.

The policy states that all NIH extramural staff members should receive biannual training on handling allegations of research misconduct properly.

Intramural research. The guidelines have the same definitions and information (guidelines, page 14).

Conflicts of Interest

Extramural research. NIH requires institutions that apply for or that receive funding under grants or cooperative agreements to address financial conflicts of interest under the requirements of 42 CFR, Part 50, Subpart F, Promoting Objectivity in Research.

The policy links to the regulation and provides a brief overview of what it contains. The regulation says that research design, conduct, and reporting should be free from bias involving an investigator's financial conflicts of interest. NIH defines an investigator as the project director, principal investigator, or any other person, regardless of title or position, responsible for the design, conduct, or reporting of research (SIP, page 7). The policy includes a link to the NIH Office of Extramural Research Financial Conflict of Interest website.

Intramural research. Intramural scientists are subject to the Standards of Ethical Conduct for Employees of the Executive Branch. NIH scientists are also subject to the requirements found in 5 CFR Part 2636, 5 CFR Part 2640, 5 CFR Part 2641, 5 CFR Part 5501, and 5 CFR Part 5502. Each NIH institute or center has dedicated ethics officials to help scientists understand and comply with the ethics rules; the policy links to a list of these officials' names and contact information.

Political Interference

The policy does not address political interference.

Threats and Intimidation

The policy does not address threats, intimidation, or other forms of interference with research as violations of scientific integrity.

Use of Science in Agency Decision-Making

In addition to being a research institution and funder, NIH is a policymaking agency that develops policies around science management and safety, and future scientific inquiry directions. Policy issues fall under the NIH Office of Science Policy (OSP), which advises the NIH Director on science policy issues affecting the biomedical research community, NIH, and the public.

The policy contains an overview of the OSP's mission and its role serving diverse stakeholders, including the national and international scientific communities, patients, other federal agencies, and the public. The policy links to the OSP website, which has detailed information about the office and the programs it administers to promote sound policymaking (SIP, page 21).

Science Communication

Science communication is a cornerstone of the NIH policy. For both extramural and intramural research, the NIH Public Access Policy ensures the public has access to the published results of research funded and conducted by NIH.

The policy requires scientists to submit their final, peer-reviewed journal manuscripts resulting from NIH-funded or conducted research to a digital archive once a manuscript is accepted for publication. Papers must be made available to the public through the archive no later than 12 months after publication.

The NIH Office of Communications & Public Liaison (OCPL) makes the public aware of extramural and intramural research findings. The NIH information program includes ClinicalTrials.gov, a federal repository of data on research sponsored by NIH and other entities.

The policy states that the OCPL offers various mechanisms for direct public contact, and it recognizes the need for immediate, reliable responses to public inquiries (SIP, pages 9-10 and 16-17).

Timeliness: The results of extramural and intramural NIH research must be submitted to the NIH digital archive upon publication. The archive must make these papers available to the public within 12 months of their publication.

Press: The NIH policy has clear guidance for communicating with the media about intramural research: "NIH employees may speak to members of the press about their work but are not required to do so. A number of specific requirements may apply, for example, those related to official duty activities for NIH employees and disclaimers to be used when scientists are not speaking in an official capacity" (SIP, page 18).

Social media: The policy does not specifically address social media. It links to the digital communications page of the Department of Health and Human Services (HHS), NIH's parent agency, which contains a link to the HHS Social Media Policies web page.

Testifying before Congress: The policy doesn't refer to testifying before Congress, but Congress is referenced as one of the potential audiences for NIH communications. Federal law also protects the right to testify before Congress.

Right of scientists to review and/or correct agency communications: The NIH policy does not address whether scientists have the right to review agency communications that rely on their work or attribute them as authors or correct inaccuracies in agency communications.

Publishing and lecturing: The intramural research section says scholarly writing, lecturing, editing, and publishing are essential parts of research and professional development at NIH; the policy has a section titled Publication of Research Findings (SIP, page 15).

NIH has policies and procedures for the review, approval, and distribution of scientific, technical, and other professional information by individual employees, including intramural and extramural researchers and Office of the Director staff. Guidance is available for written, electronic, or oral presentations to ensure that NIH employees disseminate high-quality information.

Scientific and professional information presented by NIH employees is considered differently from the information presented in other professional settings, such as when scientists from universities or industry laboratories

speak in public forums. A clear distinction must be made between the presentation of scientific data and opinions that could be construed as an NIH position. The policy links to several additional webpages with guidance on the publication process (SIP, pages 16 and 17).

Scientific Societies: The policy does not mention scientific societies.

Opinion statements: In the intramural research section, the policy states that requirements may apply for certain types of communication with the press. These include communications related to official activities for NIH employees and disclaimers scientists should use when they are not speaking in an official capacity (SIP, page 18).

Hiring Practices

The policy emphasizes the hiring practices for intramural scientists to ensure that high productivity, equal opportunity, integrity, and safety standards are met (SIP, pages 11 and 12). The policy does not state that qualifications and expertise are the basis for hiring for scientific positions, but it links to the hiring guidelines in the Intramural Research Sourcebook, which has links to detailed criteria for hiring at NIH.

Federal Advisory Committees

According to the policy, NIH often seeks the assistance of Federal Advisory Committees (FACs) to guide policy discussions and engage key stakeholders with different perspectives on a proposed policy's impact. NIH currently maintains over 150 FACs; the FAC section of the policy (SIP, page 22) has an analysis of the use of these committees and guidelines for selecting FAC members and meetings. The NIH has an Office of Federal Advisory Committee Policy (OFACP), and the policy links to the OFACP website.

Human and Animal Research Subject Protections

The policy references animal and human research subject protection for both extramural and intramural research. For extramural research, the Office of Extramural Research maintains the Office of Laboratory Animal Welfare.

The intramural research section of the policy does not mention animal subject protections. But the section on research ethics links to Guidelines and Policies for the Conduct of Research in the Intramural Research Program at NIH, which discusses animal subject welfare.

The extramural research section references Human Subjects Protections (SIP, page 6). It states that both extramural and intramural research are subject to the HHS Office for Human Research Protections, which is responsible for applying 45 CFR, Part 46, Protections of Human Subjects.

For intramural research, the Guidelines and Policies for the Conduct of Research in the Intramural Research Program at NIH also describes human subject protections.

Whistleblower Protections

In the intramural research section, the policy defines the term whistleblower and explains how the concept

works in a scientific organization. The policy states that the federal government has enacted provisions to protect whistleblowers from retaliation.

The NIH Office of the Ombudsman Center for Cooperative Resolution can assist whistleblowers and provide a haven for scientists who might otherwise not report their concerns. This office allows NIH scientists and scientific personnel to speak with the NIH Ombudsman without fear of having their identities disclosed, and enables NIH ombudsmen to relay information between whistleblowers and those in authority. The ombudsman office's flexible nature allows whistleblowers more control over the process (SIP, page 12). The policy does not provide a link to the office or its contact information.

3 WHO DOES THE POLICY GOVERN?

The policy applies to NIH's Extramural Research Program, which constitutes nearly 80 percent of NIH's budget and funds more than 300,000 research personnel at more than 3,000 universities and research institutions. It also applies to research conducted by NIH scientists in its Intramural Research Program, which has more than 5,000 scientists working at 27 Institutes and Centers.

According to the policy, "[e]nsuring the integrity of science and science-based policymaking is at the heart of everything NIH does in fulfilling its mission" (SIP, page 2). However, the policy doesn't say what roles within its programs it applies to.

4 WHAT IS THE PROCESS FOR FILING A COMPLAINT?

This guide is not a substitute for legal advice about a specific situation. If you are considering filing a scientific integrity complaint, or are the subject of a complaint, please contact the Climate Science Legal Defense Fund or another attorney for advice about your situation.

What follows is general information about what the process of filing a complaint may entail.

The NIH policy does not have information about the process of filing a loss of scientific integrity complaint. The policy only references the rules that pertain to claims of research misconduct, which are described in the NIH Intramural Research Program Policies & Procedures for Research Misconduct Proceedings. These rules do not address scientific integrity violations, so it is unclear how the rules might apply to a scientific integrity complaint.

We discuss the processes for filing and addressing research misconduct claims at NIH because they demonstrate

how claims of scientific integrity violations might be handled. Claims of research misconduct are addressed differently for extramural and intramural research and are discussed separately.

Extramural Research Misconduct

According to the policy, research misconduct for extramural research is as follows:

- There must be a significant departure from accepted practices of the relevant research community.
- The misconduct must be committed intentionally, knowingly, or recklessly.
- A preponderance of the evidence must prove the allegation.

Institutions that receive NIH funding must have written policies and procedures for addressing research misconduct allegations.

The NIH and the Office of Research Integrity (ORI) also have procedures to address allegations of research misconduct. NIH extramural staff members should receive biannual training on how to handle research misconduct allegations correctly (SIP, page 8).

An institution that receives NIH funding will typically address an allegation of research misconduct through its own procedures. NIH generally allows grantees to correct wrongdoing before taking action unless public health or welfare considerations require immediate action. NIH findings of research misconduct may result in special award conditions or enforcement actions, depending on the circumstances (SIP, page 8).

Intramural Research Misconduct

The NIH Intramural Research Program Policies & Procedures for Research Misconduct Proceedings (referred to as the manual in this guide) describes the procedures for addressing intramural research misconduct at NIH. The manual is based on the Public Health Service (PHS) Policies on Research Misconduct, 42 C.F.R. Part 93, also known as the PHS regulations. NIH is part of PHS, the division of HHS concerned with public health.

The ORI has responsibility for addressing research integrity and misconduct issues.

Who can make a claim under the policy?

The manual does not specify who can make a claim.

Where and how can a scientist make a claim?

According to the manual, allegations of research misconduct may be communicated by written or oral means to NIH or HHS officials, and scientists are encouraged to directly communicate claims to the Agency Intramural Research Integrity Officer (AIRIO) (Manual § VI. A).

What should a complaint contain?

The manual does not say what a complaint should contain. It suggests that, where possible, the allegation should be sufficiently documented and include information about relevant parties, witnesses, dates, locations, publications, and the subject of the research in question (Manual § VI. A).

Is there a deadline for filing a complaint?

The provisions do not specify how long a person making a complaint, known as the complainant, has to file it after learning of alleged research misconduct.

5 WHAT HAPPENS AFTER A COMPLAINT IS FILED?

Who investigates?

The AIRIO investigates allegations of violations of scientific integrity. Their investigation has three phases: assessment, inquiry, and investigation. Section IV of the manual has definitions and explanations of the role of the AIRIO and other officials involved in the complaint proceedings.

Assessment

Once a formal complaint is received, the AIRIO will review the allegations and decide whether to initiate a formal inquiry. At this stage, the AIRIO must determine whether the allegation is credible and specific, including whether potential evidence of research misconduct can be identified, falls within the jurisdiction of the manual and the PHS regulations, and is within the definition of research misconduct in the manual and PHS regulations.

The AIRIO must initiate an inquiry if these criteria are met. There is no timeframe for the inquiry; the manual says only that the assessment period should be brief (Manual § VI.B). If an inquiry isn't initiated, the matter is closed, and the AIRIO may notify the complainant to resolve any questions concerning the assessment.

Inquiry

If the AIRIO determines an inquiry is warranted, they will immediately initiate the inquiry process, which is described in Manual § VII. The purpose of the inquiry is to conduct a preliminary review of the evidence and determine whether the allegation has enough substance to warrant an investigation. The AIRIO must make an effort to notify the respondent in writing and, if possible, verbally explain the inquiry process and advise the respondent that he or she may retain legal counsel.

The AIRIO should appoint an inquiry committee with three voting members who are federal employees; they can be employees of a different federal agency. The AIRIO should provide the respondent the names of the inquiry committee members and give the respondent seven days to object to a proposed member. The AIRIO may prepare a written charge for the committee, which will meet as necessary to evaluate the complaint. The

inquiry should be completed within 60 calendar days of its initiation, defined as the date of the first meeting of the inquiry committee.

The inquiry committee and the AIRIO must prepare a written draft inquiry report (Manual § VIII). The report should be provided to the HHS Office of the General Counsel for legal review, and the office can make appropriate modifications. The AIRIO will notify the respondent of the inquiry committee's decision and include a copy of the draft report. The NIH may choose to provide the complainant with a copy of the inquiry report. The respondent and complainant have 14 days to comment on the report. Based on their comments, the inquiry committee may revise the draft report or add a written reply to the comments before preparing a final version.

The final inquiry report will be delivered to the AIRIO, who then sends the final report to the Deciding Official (DO); the DO will determine whether an investigation is warranted (note that the Deputy Director for Intramural Research is the DO for inquiries).

The AIRIO must provide the ORI with a copy of the DO's decision within 30 days of the decision to launch an investigation. If the DO decides an investigation is not warranted, they must notify the respondent, the complainant, and anyone else with knowledge of the proceedings. The respondent may ask the AIRIO to take steps to restore the respondent's reputation (the steps are described in Manual § XIII(B)).

Investigation

If the DO decides an investigation is warranted, it must begin within 30 calendar days (investigations are addressed in Manual § IX). The AIRIO must inform the ORI Director of the decision to start an investigation and give the ORI a copy of the inquiry report. The AIRIO must notify the respondent in writing of the allegations being investigated, including any new allegations not addressed in the inquiry.

The AIRIO will appoint an investigation committee consisting of five voting members who should be federal employees; they may be employees of a different federal agency. The AIRIO will notify the respondent of the investigation committee members' names and allow the respondent to object to a committee member within seven calendar days.

The AIRIO will prepare a charge to the committee containing details of the allegation and the investigation process (Manual § IX. D. describes what this charge should include). One member will serve as the committee chair.

The investigation committee and the AIRIO must examine the evidence, take steps to ensure an impartial investigation, and interview each known respondent and complainant. Interviews should be recorded and transcripts prepared and entered into the record of the proceedings.

For a finding of research misconduct, there must be a significant departure from the relevant research community's accepted practices, the misconduct must have been committed intentionally, and a preponderance of the evidence must prove the allegation.

The NIH has the burden of proof for research misconduct findings. The respondent has the burden of proving by a preponderance of the evidence any affirmative defenses raised, including honest errors or differences of opinion. The respondent also has the burden of proof regarding any mitigating factors that lead to a decision to impose administrative actions.

The investigation must be completed within 120 days of its initiation, or the date the investigation committee first meets. This timeframe includes preparing the draft investigation report, providing the draft report to the DO for comment, review, and a final decision, and sending the final decision to the ORI.

The DO for investigations is the NIH Agency Research Integrity Liaison Officer, who oversees the NIH's intramural and extramural research integrity programs.

The investigation committee and the AIRIO will prepare the written draft investigation report, which should include all relevant details (found in Manual § X). A draft of the report will be sent to the HHS Office of the General Counsel for legal review. The AIRIO must provide the respondent with a copy of the draft report; the respondent has 30 days to submit comments.

The AIRIO will help the investigation committee finalize the draft investigation report, including considering respondent and complainant comments, and send the final report to the DO.

Is the confidentiality of the parties protected?

A complainant may bring an allegation anonymously or request that their name be withheld; in some cases, an inquiry and investigation can't proceed without identifying the complainant. There is no provision for protecting the respondent's confidentiality, but the proceedings for examining research misconduct accusations are clear about who should be notified at various stages.

Do the parties have a right to a hearing?

While there is no right to a formal hearing, both parties must be interviewed at the investigation stage. The interviews should be recorded, transcribed, and entered into the proceeding record.

Do the parties have a right to respond to the findings of the investigation?

Both parties have the right to submit comments on the draft inquiry report. Comments are attached to the final report, which is used to determine whether an investigation is warranted. If an investigation takes place, the respondent must receive a copy of the draft investigation report and have the opportunity to submit written comments, which will be considered and included in the final report. The complainant may receive and comment on the portions of the draft investigation report that address their role in the investigation. Their comments will be considered and included in the final report.

6 WHAT HAPPENS AFTER THE INVESTIGATION ENDS?

Once the final investigation report is sent to the DO, that person will determine in writing whether the NIH accepts the investigation report, its recommended findings and actions, and the suggested actions to take in response to this finding. The DO may issue a different decision than the committee recommends and may return the report to the committee for further fact-finding.

When a final decision is reached, the AIRIO will notify both the respondent and the complainant (if known) in writing. The AIRIO must submit a copy of the report to the ORI within 120 days, along with a statement of whether NIH accepts the findings, a statement of whether NIH found research misconduct and who committed it, and a description of pending or completed administrative actions against the respondent.

Once NIH makes a research misconduct finding and notifies the ORI, NIH must notify other relevant people and groups about it. The manual has sample language to use when responding to press inquiries about research misconduct (Manual § X. D).

Admission

The respondent has the opportunity to admit that research misconduct happened and that he or she committed the research misconduct any time during the research misconduct proceeding. If this occurs, the DO may terminate the NIH review of the allegation if the ORI approves the NIH acceptance of the admission and any proposed settlement.

The ORI will typically prepare a Voluntary Settlement Agreement for review by the respondent. The NIH proceeding is terminated once the agreement is approved and signed by the respondent and HHS (Manual § IV. E).

If a scientific integrity is found to have been compromised, who decides what the resolution/remedy should be?

If the investigation report recommends a finding of research misconduct, the investigation committee can suggest administrative actions NIH should take, including actions against the respondent. The DO will refer to appropriate the NIH officials to decide what, if any, administrative actions to take.

Do the parties have the right to appeal if initial decision is not in their favor?

The respondent may submit comments for inclusion with the final investigation report, but they do not have the right to appeal the decision.

What are the penalties for misconduct?

The manual lists potential administrative actions (Manual § XII). These include, but are not limited to:

- Retraction or correction of all pending or published abstracts and papers that resulted from the research
- Removal of the responsible person from the project
- Letter of reprimand
- Special monitoring of future work
- Probation
- Suspension
- Salary reduction
- Initiation of steps leading to possible rank reduction or termination of employment

7 ADDITIONAL RELEVANT POLICIES AND RESOURCES

NIH Office of Extramural Research Financial Conflict of Interest website

Standards of Ethical Conduct for Employees of the Executive Branch

NIH Public Access Policy

NIH Office of Extramural Research Financial Conflict of Interest website

NIH Office of Science Policy website

HHS digital communications page

Intramural Research Sourcebook

Office of the Federal Advisory Committee Policy website

Guidelines and Policies for the Conduct of Research in the Intramural Research Program at NIH

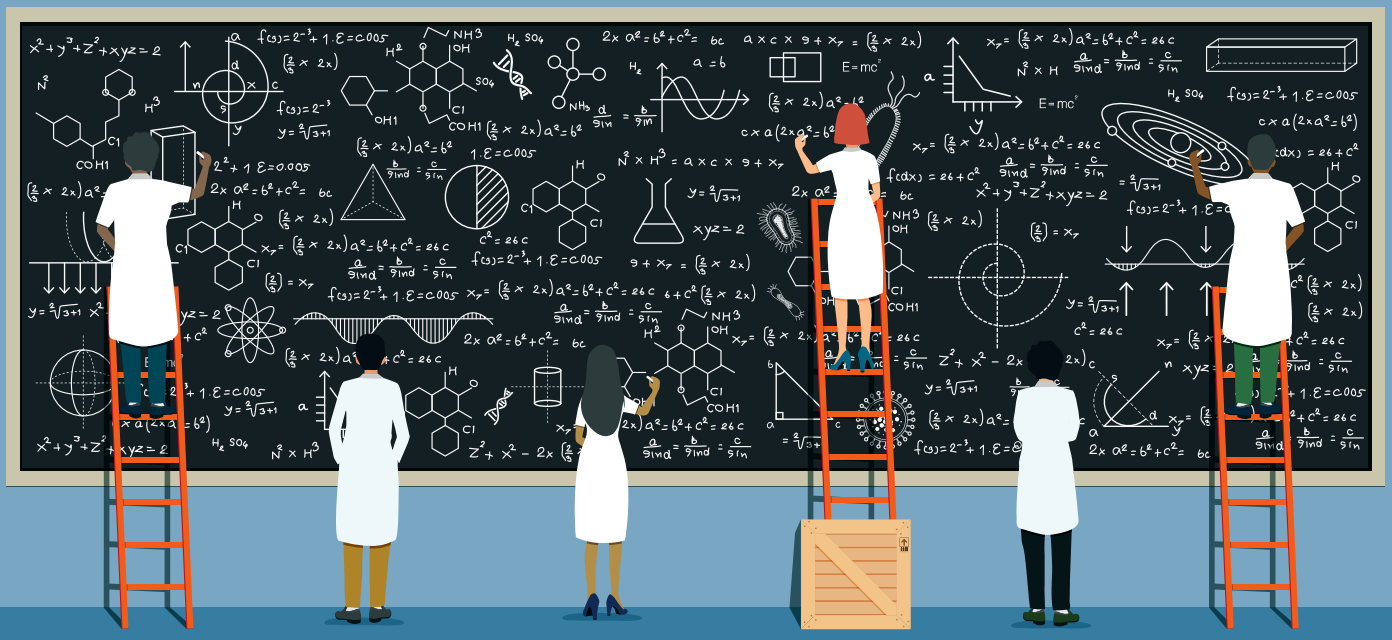
8 REPRESENTATIVE CASES AND OUTCOMES

NIH does not address violations of scientific integrity, but summaries of research misconduct claims by NIH scientists and grantees are available on the HHS Office of Research Integrity case summaries webpage. The following examples are from the webpage.

Falsifying data is considered research misconduct. A researcher who reused and relabeled data to support different findings and falsified data was found to have committed research misconduct. The respondent agreed to have her research supervised for three years, exclude herself from serving in an advisory capacity to PHS, and request the retraction of papers containing the falsified data.

Falsifying laboratory records is considered research misconduct. A researcher fabricated data regarding mice behavior and laboratory entry logs and reported the fabricated data to his laboratory supervisors. The respondent agreed that if he received or applied for PHS support within two years, he would have his research supervised for one year. He also agreed to exclude himself from serving in any advisory capacity to PHS including, but not limited to, service on a PHS advisory committee, board, or peer review committee, or as a consultant for one year.

Widespread instances of research misconduct result in debarment. A researcher who recklessly caused and permitted 23 cases of research misconduct in grant applications, research papers, and posters was debarred from contracting or subcontracting with any United States government agency five years. The researcher was prohibited from serving in an advisory capacity to PHS including, but not limited to, service on PHS advisory committees, board, or peer review committees, or as a consultant for five years.



A QUICK GUIDE TO THE SCIENTIFIC INTEGRITY POLICY AT THE

National Oceanic and Atmospheric Administration (NOAA)

NOAA Table of Contents

1 SUMMARY

The NOAA scientific integrity policy, NOAA Administrative Order 202-735D (referred to as the policy and SIP in this guide), promises to ensure the free flow of scientific information and "preserve the integrity of the scientific activities it conducts, and activities that are conducted on its behalf" (SIP § 5.02).

The policy's definition of scientific integrity extends beyond research misconduct and includes the right to communicate scientific findings without interference or censorship. It addresses key areas of scientific integrity and provides clear procedural guidance for scientific integrity complaints while clearly explaining its scope, principles of scientific integrity, and NOAA policies. It also includes a code of scientific conduct and a code of ethics for scientific supervision and management, which provide valuable context for the principles the policy contains. NOAA also stands out from other agencies in that it actively maintains a scientific integrity website "NOAA Scientific Integrity Commons" which includes an FAQ page that helps to clarify many of the issues raised in the SIP.

The Department of Commerce is the parent agency of NOAA, so NOAA employees are also subject to Department of Commerce policies. This can lead to confusion about whether the Commerce policies supersede NOAA policies; for example, in the case of communicating with the press, the Department of Commerce policy is more restrictive than the NOAA policy.

The NOAA procedures for investigating claims of a violation of scientific integrity have strengths and weaknesses. The policy contains a detailed, multi-stage process. However, it doesn't afford as many rights as it should to the parties involved; it also fails to address the consequences of what happens when scientific integrity is compromised.

2 WHAT DOES THE POLICY GOVERN?

The NOAA policy is strong primarily because it defines scientific integrity as follows: "The condition resulting from adherence to professional values and practices when conducting and applying the results of science that ensures objectivity, clarity and reproducibility, and that provides insulation from bias, fabrication, falsification, plagiarism, interference, censorship, and inadequate procedural and information security" (SIP § 3).

This definition covers more than traditional research misconduct. NOAA has developed a procedural handbook addressing scientific integrity (Procedural Handbook for NAO 202-735D: Scientific Integrity, referred to as the Handbook in this guide) describes the procedures for handling a scientific integrity complaint and states "coercive manipulation, intimidation, misrepresentation, censorship, or other misconduct that affects the quality or reliability of scientific information may involve the loss of scientific integrity" (Handbook at 3).

Research Misconduct

Scientific and research misconduct are defined in section 8 of the policy as "fabrication, falsification, or plagiarism in proposing, performing, or reviewing scientific and research activities, or in the products or reporting of these activities" (SIP § 8). It also states that violations of the NOAA Code of Scientific Conduct (SIP § 6) and the NOAA Code of Ethics for Science Supervision and Management (SIP § 7) constitute scientific and research misconduct, which explicitly exclude honest errors or differences of opinion.

Conflicts of Interest

According to the NOAA policy, a conflict of interest is any financial or non-financial interest which conflicts with the actions or judgments of an individual when conducting scientific research because it could impair the individual's objectivity, could create a competitive advantage for any person or organization, or could create the appearance of either of these items (SIP § 3).

Political Interference

Under no circumstance may a NOAA official ask or direct scientists or other NOAA employees to suppress or alter scientific findings (SIP 5.02(d)). In addition, NOAA will "[c]ommunicate scientific and technological findings by including a clear explication of underlying assumptions; accurate context of uncertainties; and a description of the probabilities associated with both optimistic and pessimistic projections, including best-case and worst-case scenarios except in extraordinary or emergency situations" (SIP § 5.02(g)).

Threats and Intimidation

NOAA science managers and supervisors must not suppress, alter, or otherwise impede the timely release of scientific or technological findings or conclusions unless expressly required by law. No NOAA employee may intimidate or coerce employees into altering or censoring scientific findings, and NOAA may not establish any institutional barriers to cooperation or the timely communication of scientific findings or technology (SIP § 7.02).

Use of Science in Agency Decision-Making

The policy recognizes that using scientific advice for decision-making is fundamental to NOAA (SIP § 4.01). The policy requires that when scientific or technological information is considered in policy decisions, it be subject to well-established scientific processes such as peer-review, and further requires that policy decisions reflect the best available science (SIP § 7.01. See also § 5.02(e)). Scientific findings and supporting data used in decision-making must be made available to the public where possible (SIP § 5.02(b)).

Science Communication

NOAA's policy distinguishes Fundamental Research Communications from other communications that are discussed in this guide. Fundamental Research Communications (FRCs) are public communications prepared as part of the employees official work regarding the products of basic or applied research in science or engineering,

the results of which are typically published and shared with the scientific community. A separate policy "NOAA Framework for Internal Review and Approval of Fundamental Research Communications" addresses these communications. The SIP highlights that the decision to approve FRCs must be based only on scientific merit and the approval/non-approval cannot be based on the policy, budget or management implications of the research (SIP §7.04).

Timeliness: NOAA will ensure that the scientific and technological findings, conclusions, and methodologies considered or relied on in policy decisions are made available to the public in a timely manner (SIP § 7.01).

Press: NOAA will provide knowledgeable spokespersons who can discuss the scientific and technological dimensions of their work in response to media requests for interviews (SIP § 4.04). NOAA scientists may speak freely to the media and the public about scientific and technical matters based on their official work. Email and other electronic communications sent in response to media inquiries and based on official work are considered the same as oral communications (SIP § 4.05).

NOAA's parent agency, the Department of Commerce, has more stringent guidelines than NOAA does for scientists' communications with the press. For example, the Department of Commerce guidelines give the head of the operating unit final approval of written or audiovisual materials for certain communications, something NOAA's policy does not do.

The inconsistencies between the two policies applicable to NOAA scientists creates room for significant confusion. This is particularly true since the NOAA scientific integrity policy states that it "is in addition to" and does not alter the requirements of the Department of Commerce policy. This lack of clarity could potentially be an issue for a scientist speaking to the press who believes they are complying with the NOAA policy but who may be in violation of the Department of Commerce policy.

Social media: The use of social media by NOAA employees is described in the Department of Commerce Social Media and Web 2.0 policy. It is not clear whether a violation of this policy also constitutes a violation of the NOAA scientific integrity policy; the NOAA policy states that NOAA's social media communications are "governed by" this policy.

Testifying before Congress: While the policy does not expressly state that agency scientists have a right to testify before Congress, it does reference that testimony before Congress is addressed by other NOAA policies and federal guidelines (SIP § 2.04(c)).

Right of scientists to review and/or correct agency communications: The press section of the NOAA policy does not mention scientists' right to review or correct agency communications discussing their work or attributing them as authors. However, there is a sentence in the section of the NOAA policy dealing with the ethics of supervising science that states managers should provide the right to review or correct official documents that cite their work (such as a press release or report) to ensure accuracy has been maintained after editing (SIP § 7.01).

Publishing and lecturing: NOAA scientists are encouraged to publish data and findings, including online in open formats and through peer-reviewed, professional or scholarly journals (SIP § 4.03). NOAA encourages its researchers to present their work at scientific meetings, publish in appropriate journals and media outlets, and serve on editorial boards and scientific or technological expert review panels (SIP § 4.07).

Scientific societies: NOAA encourages its researchers to become scientific leaders by "actively participating in professional societies and national/international scientific advisory and science assessment bodies" (SIP §4.07). NOAA also supports the election or appointment of its scientists to fellowships or positions in professional organizations. However, these activities may be subject to restrictions under ethics rules; employees should consult an ethics official before accepting such an appointment (SIP § 4.08).

Opinion statements: NOAA scientists are free to present views that extend beyond their scientific findings and that incorporate their expert or personal opinions, but they must make it clear that they are presenting their personal opinion and not the views of NOAA or the Department of Commerce. Personnel may note their NOAA affiliation as part of their biographical information as long as it is one of several biographical details. If the information will be published in a scientific or technical journal, one's NOAA affiliation may be listed with an appropriate disclaimer. According to NOAA, it will make examples of disclaimers available on its scientific integrity commons website but none are currently listed on the site (SIP § 4.06).

Hiring Practices

NOAA must ensure that the selection of employees in scientific positions or positions that rely on the results of scientific activities are based on the candidate's integrity, knowledge, credentials, and experience relevant to the position (SIP § 5.02(c)). Similar requirements are found in the section on the ethics of science supervision and management (SIP § 7.01).

Federal Advisory Committees

Unlike some other scientific agencies, NOAA's policy explicitly addresses scientific Federal Advisory Committees (SIP § 7.01). The policy requires that the recruitment process for new committee members, as well as the biographical information of current members and any conflict of interest waivers they receive, be transparent and publicly available. It also requires that committee member selection be based on expertise, knowledge, and contributions to the relevant subject area.

Whistleblower Protections

The policy acknowledges the Whistleblower Protection Act and states that it does not conflict with it (SIP § 2.05). The policy says it will provide information to employees on, and abide by, existing whistleblower protections, but it does not provide further details (SIP § 5.02(f)).

3 WHO DOES THE POLICY GOVERN?

The policy applies to "[a]ll NOAA employees, political and career, who are engaged in, supervise or manage scientific activities, analyze and/or publicly communicate information resulting from scientific activities, or use scientific information or analyses in making bureau or office policy, management or regulatory decisions." It also applies to contractors who engage in these activities (SIP § 2.02).

4 WHAT IS THE PROCESS FOR FILING A COMPLAINT?

This guide is not a substitute for legal advice about any specific situation. If you are considering filing a scientific integrity complaint, or are the subject of a complaint, please contact the Climate Science Legal Defense Fund or another attorney for advice about your particular circumstances. Nonetheless, we will provide below general information about what the process may entail.

NOAA's definition of what constitutes a loss of scientific integrity—and what the standard is for finding that such a loss has occurred—are clearer than those of some other scientific agencies. At NOAA, a finding of scientific misconduct resulting in the loss of scientific integrity requires a determination by a preponderance of the evidence that a person or entity has significantly departed from accepted practices of the relevant research community. In doing so, the person or entity violated the Code of Scientific Conduct/Code of Ethics for Scientific Supervision and Management found in the policy and engaged in the misconduct intentionally, knowingly, or in intentional disregard of the Code of Scientific Conduct/Code of Ethics for Scientific Supervision and Management (Handbook § 2.01).

Who can make a claim under policy?

An allegation can be submitted by both internal and external NOAA individuals or entities (Handbook §3.03).

Where and how can a scientist make a complaint?

Complaints should be submitted in writing to the NOAA Scientific Integrity Officer (SIO) via email or the mail to the Office of the NOAA Deputy Under Secretary for Operations (DUS/O) (Handbook § 3.02).

What should a complaint contain?

The following should be included in the complaint (Handbook § 3.04):

- Name of the person or organization alleged to have committed the misconduct
- A statement of facts including how the complainant learned the facts

- A list of documents supporting the allegation
- A list of witnesses who may corroborate the allegation
- An explanation of how the criteria for a loss of scientific integrity are met
- An explanation of any conflict of interest
- A statement indicating whether the allegation has been submitted elsewhere (i.e., NOAA Employee and Labor Relations Division)

Is there a deadline for filing a complaint?

Complaints must be filed within 90 calendar days of the discovery of the misconduct (Handbook § 3.02). Prior to filing a complaint, interested persons are advised to contact members of the NOAA Scientific Integrity Committee and the SIO to discuss the situation; the Handbook states this pre-allegation consultation is optional but recommended (Handbook § 4.02).

5 WHAT HAPPENS AFTER A COMPLAINT IS FILED?

Who investigates?

The SIO investigates scientific integrity complaints. The handling of each complaint proceeds in three distinct phases: assessment, inquiry, and investigation.

Assessment

Once it receives a complaint, the SIO has 30 days to assess the allegation (Handbook § 4.03). The SIO must determine two things. First, whether the misconduct alleged meets the definition that would bring it under the SIO's jurisdiction; specifically, whether the complainant has alleged fabrication, falsification, or plagiarism in scientific activities, or other actions that violate NOAA's Code of Ethics for Science Supervision and Management or its Code of Scientific Conduct (SIP § 8.01). Second, the SIO must determine whether the allegation is sufficiently credible and specific.

Once the SIO has made the initial assessment of the allegation, his or her finding must be communicated to the DUS/O and the complainant. The SIO decides whether to notify the person who is the subject of the allegation, known as the respondent, at this stage.

Inquiry

If the assessment shows that the allegation falls within the scope of the SIO's jurisdiction and is sufficiently credible and specific that further action is needed, the SIO will conduct an inquiry (Handbook § 4.04).

The SIO has 30 days to appoint an inquiry team from the time he or she determines that further evaluation of an allegation is required. The inquiry team is chaired by the SIO and includes the relevant Line Office Scientific Integrity Officer and an unrelated Line Office Scientific Integrity Officer, as well as other Scientific Integrity Points of Contact and NOAA employees in the chain of command of the respondent. Members of the inquiry team are required to disclose any actual and potential conflicts of interest to the SIO prior to their appointment.

The SIO must notify the respondent at this stage. Both the respondent and the person filing the complaint, known as the complainant, must be given an opportunity to provide written testimony, including third-party witness statements, or documentary evidence to the inquiry team.

The inquiry team has 90 days to collect information, assess the merits of the investigation, and develop an inquiry report. This report must be provided to both the complainant and the respondent, who have five calendar days after receiving it to provide written objections to the findings. The final report, along with any objections from the parties, must be provided to the DUS/O and the appropriate Line Office Assistant Administrator.

The inquiry report must contain, among other things, a recommendation that the DUS/O or Line Office Assistant Administrator either: 1) dismiss the allegation, 2) take a specific action to restore scientific integrity, or 3) open an investigation. Note that in certain cases a different action may be required. For example, findings of fraud will be referred to the Department of Commerce Inspector General and findings of criminal activity may be referred to the Department of Justice.

Investigation

If the inquiry report recommends an investigation and the DUS/O concurs, an investigation will be opened in the case (Handbook § 4.05). The purpose of the investigation is to determine whether scientific misconduct or loss of scientific integrity has occurred, and to recommend corrective action.

The DUS/O has 30 days from the time he or she determines that an investigation is required to appoint a determining officer (DO) and an integrity review panel chair (IRPC). The DO is the NOAA official who makes the final determination on an allegation of scientific misconduct and proposes administrative action. The DO must be at the level of Deputy Assistant Administrator or above, have no prior involvement with the agency's inquiry, and not be in the chain of command for either the complainant or the respondent.

The IRPC is the agency official responsible for chairing the investigation and is a subject matter expert designated for a special investigation. The DUS/O, SIO, and IRPC propose members for an integrity review panel. Members must disclose any conflict of interest that could disqualify them from serving on the panel.

The integrity review panel may collect any additional information it deems necessary; it may also broaden the scope of its inquiry beyond the initial allegation (although it must notify the respondent and allow him or her to respond if it does so). Both the complainant and the respondent must be given an opportunity to provide written testimony to the panel. The panel may request oral testimony from either or both parties. The panel's investigation must conclude within 120 days from the date it began, unless the SIO grants more time.

Once the panel has completed its investigation, it must develop an investigation report. As with the inquiry report, the investigation report must be provided to both the complainant and the respondent, who have 10 calendar days from receiving the report to provide written objections. The investigation report, along with any objections from the parties, is then given to the DO.

Among other things, the report must contain a recommendation for the DO to either 1) dismiss the allegation, or 2) determine that scientific misconduct or loss of scientific integrity has occurred, and recommend specific actions by NOAA to restore scientific integrity.

Is the confidentiality of the parties protected?

NOAA's policy protects those who uncover and report allegations of scientific research and misconduct from prohibited personnel practices and offers the same protections to those accused of scientific misconduct (SIP § 5.04).

Complainants may remain anonymous. All NOAA officials involved in the proceedings will guard the confidentiality of the proceedings, and the disclosure of the identity of complainant and respondent is limited to those who need to know (Handbook § 8). The complainant is also required to maintain confidentiality at the risk of losing the right to be informed of the status of the allegation (Handbook § 6.01).

Do the parties have a right to a hearing?

As described above, the policy does not provide any explicit right to a hearing.

Do the parties have a right to respond to the findings of the investigation?

As described above, following a final decision, the parties have five calendar days to submit written objections to the findings of the investigation.

6 WHAT HAPPENS AFTER THE INVESTIGATION ENDS?

Once the DO receives the final investigation report, he or she has 30 days to determine whether to accept the report and its recommendations, modify them, or decline them entirely. The DO also has the option to return the report to the panel for further fact-finding or analysis. If the DO accepts findings of scientific misconduct or loss of scientific integrity, he or she must specify appropriate agency actions, if any, in response. Once the DO makes a final decision, the panel must provide the findings, report, and any recommended action to the SIO and D/USO within 10 days. The parties must also be notified in writing at this stage.

If a loss of scientific integrity is found, who decides what the resolution/remedy should be?

If the DO finds that scientific misconduct has occurred, the DUS/O will refer the matter to the appropriate manager within the respondents reporting structure for action (Handbook § 4.06).

Do the parties have a right to appeal if initial decision is not in their favor?

As noted above, the parties can submit written objections. However, the policy lacks a formal appeal process.

What are the penalties for misconduct?

The policy does not specify any specific penalties, but it describes factors that should be considered (Handbook § 4.06). These include:

- The nature of the misconduct
- The nature and degree of the damage to the scientific record caused by the actions
- The nature and degree of real or potential damage to the public caused by the actions
- The degree of damage to NOAA's reputation for quality science
- The respondent's cooperation with the inquiry or investigation
- Whether the respondent engaged in retaliation or intimidation of the complainant
- The professional experience of the respondent
- Whether the respondent destroyed or altered evidence

7 ADDITIONAL RELEVANT POLICIES AND RESOURCES

- Department of Commerce Administrative Order (DAO) 219-1 on Public Communications
- Department of Commerce Policy on the Approval and Use of Social Media and Web 2.0
- NOAA Framework for Internal Review and Approval of Fundamental Research Communications

8 REPRESENTATIVE CASES AND OUTCOMES

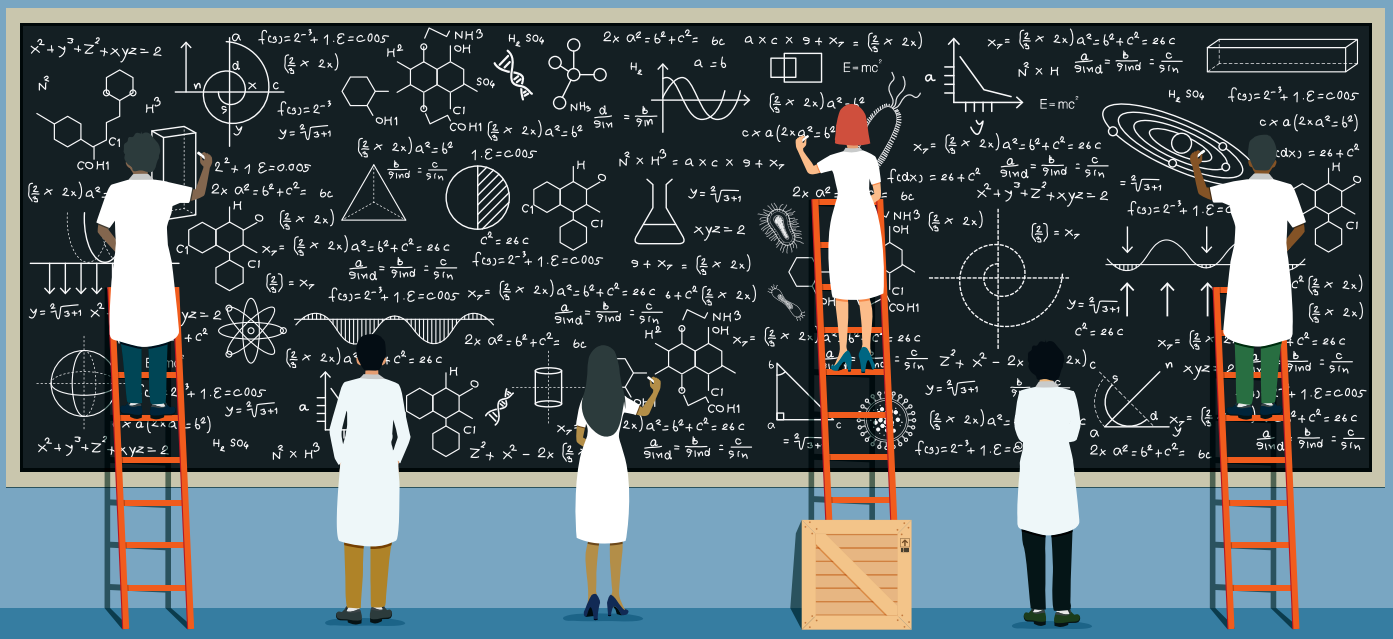
NOAA publishes Scientific and Research Misconduct Annual Reports, which summarize cases and their outcomes. Two of these publications can be found here and here. A few examples demonstrate how scientific integrity complaints may typically be handled at NOAA.

Complaints Dismissed After Initial Assessment: A NOAA employee alleged routine scientific studies conducted by the National Marine Fisheries Service constituted research misconduct. The DUS/O delegated the action to the SIO; after assessment the SIO found it was a policy and management issue—not an issue of scientific integrity—and dismissed the allegation.

A NOAA employee alleged that the agency and a number of employees across the agency were not complying with federal statutes and regulations with regard to research. The DUS/O delegated the allegations to the SIO who, after consultation with the Office of General Counsel, found the allegations to be unsubstantiated and dismissed them.

Complaint Referred Elsewhere After Initial Assessment: A NOAA employee alleged scientific misconduct by supervisors with regard to participation in external scientific organizations. The DUS/O delegated the allegation to the SIO and after an initial assessment the SIO found it was a personnel issue and not a question of scientific integrity. The allegation was dismissed and referred to the NOAA Workforce Management Office.

Complaint Referred Elsewhere After Inquiry Phase: A NOAA employee alleged scientific misconduct against supervisors and leadership with regard to internal review of fundamental research communications at the National Marine Fisheries Service. The DUS/O opened an inquiry and, based on the inquiry report from the inquiry review panel, the DO dismissed the allegation of scientific misconduct and referred the claims to the NOAA Workforce Management Office for the appropriate action.



A QUICK GUIDE TO THE SCIENTIFIC INTEGRITY POLICY AT THE

National Science Foundation (NSF)

NSF Table of Contents

1 SUMMARY

The National Science Foundation (NSF) scientific integrity policy (referred to as the policy and SIP in this guide) focuses on research misconduct and producing objective scientific data that is free from conflicts of interest. The policy emphasizes ensuring transparency of scientific data, details procedures for investigating research misconduct claims, and describes specific penalties when misconduct is found to have occurred. The policy also discusses the use of Federal Advisory Committees.

However, the policy fails to address the broader concept of scientific integrity. The procedures for investigating research misconduct, while detailed, do not address what happens for any other type of scientific integrity violation. The policy also contains links to other policies rather than describing them in the policy; these links are only in footnotes which makes them easy to overlook or ignore.

At only two pages, the NSF policy is far shorter than the policies for most other agencies and fails to address science communication beyond the concept of making data publicly available. While transparency is key, providing no guidance on how scientists should communicate their work beyond making data available leaves a lot of room for misunderstanding. The policy would be stronger if it provided guidance for scientists on communicating with the press, using social media, and making public opinion statements.

2 WHAT DOES THE POLICY GOVERN?

Research Misconduct

According to the policy, NSF awardees should adhere to high standards of ethical conduct; a policy footnote links to the Code of Federal Regulations section that addresses research misconduct at NSF (45 C.F.R. §689.5). This section defines research misconduct as fabrication, falsification, or plagiarism in proposing or performing research funded by NSF, reviewing research proposals submitted to NSF, or in reporting research results funded by NSF. Misconduct does not include honest errors and differences of opinion. The footnotes also link to an NSF web page that details how to report fraud, waste, or abuse.

Conflicts of Interest

The policy addresses the fact that NSF has internal procedures that reflect various government conflict rules and provide clear standards regarding conflict of interest. A footnote to the policy links to NSF Manual 15 “Conflicts of Interest and Standards of Ethical Conduct” but does not describe what type of information the manual contains.

Political Interference

The policy states that scientific and technological findings should not be suppressed or altered by political officials; it does not expand any further on this subject (SIP I).

Threats and Intimidation

The policy does not address threats, intimidation, or other interference with research as violations of scientific integrity.

Use of Science in Agency Decision-Making

The policy does not include requirements about how science should be used in agency decision-making.

Science Communication

The NSF policy references the importance of the free flow of scientific and technological information as well as the importance of open communication. NSF participates in the Open Government Initiative and maintains an Open Government plan. The plan describes how NSF ensures open science but does not provide any sort of framework to guide scientists. NSF also promotes science communication by maintaining the website Research.gov which provides information on research spending and results.

Timeliness: The NSF policy does not address timeliness of science communication.

Press: The NSF policy does not address communication between scientists and the press as part of scientific integrity at the agency. A footnote links to NSF's Open Government Plan 4.0; this discusses how NSF uses the press to communicate its work but it does not provide any guidance for agency scientists.

Social media: The policy does not address social media. Scientists should be aware that NSF has a separate Policy for Social Media Use.

Testifying before Congress: While the policy does not specifically state whether scientists have the right to testify before Congress, that right is protected elsewhere in federal law.

Right of scientists to review and/or correct agency communications: The NSF policy does not address whether scientists have the right to review agency communications that rely on their work or attribute them as authors, or to correct inaccuracies in such agency communications.

Publishing and lecturing: NSF considers the professional development of scientists to be a key part of scientific integrity. The policy permits staff (including scientists and engineers) to pursue research and development activities related to NSF's mission and goals, such as attending or giving presentations at conferences or involvement in committees on government time (SIP III).

Scientific Societies: NSF allows staff to participate in research or educations institutions, scientific societies or professional association or editorial boards provided written permission is obtained from a supervisor and ethics counselor (SIP III).

Opinion statements: The policy does not address scientists' right to make public statements of personal opinion.

Hiring Practices

The policy states that candidates for scientific and technical positions are selected on the basis of their knowledge, credentials, experiences, and integrity (SIP I).

Federal Advisory Committees

NSF operates scientific advisory committees pursuant to the Federal Advisory Committee Act of 1972. These committees provide advice and recommendations to NSF concerning science research and education (SIP II). Suggestions for advisory committee membership can be made on the NSF website. NSF also issues Federal Register notices that provide contact information for specific committees for those interested in becoming a member or nominating someone to become a member. NSF provides biographical information for all committee members. Selection of committee members is based on expertise, knowledge, and contribution to the relevant subject area.

The policy also details the disclaimer language to be used on all advisory committee reports, recommendations, and products. This language reads as follows:

> The function of Federal Advisory Committees is advisory only. Any opinions, findings, conclusions, or recommendations expressed in this material are those of the Advisory Committee, and do not necessarily reflect the view of the National Science Foundation.

Whistleblower Protections

The policy states that NSF staff who report potential violations of rules and regulations are protected from retaliation (SIP I); a footnote links to the No Fear Act Notice on the NSF website. This page provides general information on whistleblower protection but does not detail any NSF specific provisions or protections. NSF does not appear to provide any additional protections for whistleblowers beyond those offered by existing federal laws.

3 WHO DOES THE POLICY GOVERN?

The policy introduction states that it applies to all civil service employees; visiting scientists, engineers and educators; fellows, students and intermittent experts; those working at NSF under the Intergovernmental Personnel Act; and political appointees.

This policy does not appear to include NSF awardees. However, the policy does state that NSF awardees, whether current or prospective, are expected to adhere to high standards of ethical conduct (SIP I). Federal regulations prohibiting research misconduct at NSF, 45 C.F.R. § 689, discussed more below, also explicitly apply to NSF grantee organizations and individual awardees.

4 WHAT IS THE PROCESS FOR FILING A COMPLAINT?

This guide is not a substitute for legal advice about any specific situation. If you are considering filing a scientific integrity complaint, or are the subject of a complaint, please contact the Climate Science Legal Defense Fund or another attorney for advice about your particular circumstances. Nonetheless, we will provide below general information about what the process may entail.

The NSF policy does not provide any details on the process of filing a complaint regarding a loss of scientific integrity, a significant omission. The closest it comes is referencing the rules regarding research misconduct, which are detailed in 45 C.F.R. § 689. However, these rules are specific to research misconduct and do not address scientific integrity violations more broadly. The scientific integrity policy does not summarize or discuss these rules. It merely states that allegations of research misconduct should be reported in accordance with NSF policy and provides a footnote linking this statutory section. It is therefore not clear to what extent the rules regarding research misconduct would be applied to a scientific integrity complaint.

The rules in the C.F.R. aren't easy to understand, inviting considerable confusion for scientists about how to file a scientific integrity complaint. Below we discuss the processes for filing and addressing claims of research misconduct at NSF, as detailed in 45 C.F.R. § 689, since these provide insight into how claims of scientific integrity violations are handled.

Who can make a claim under the policy?

The provisions for handling a claim of research misconduct do not specify who may make a claim.

Where and how can a scientist make a claim?

The policy states that allegations of research misconduct should be reported to the Office of the Inspector General (OIG). Additionally, the policy provides an email address for comments or questions regarding scientific integrity: scientificintegrity@nsf.gov.

What should a complaint contain?

The provisions do not specify what a complaint should contain.

Is there a deadline for filing a complaint?

The provisions do not specify how long the person making the complaint (known as the complainant) has after learning of the alleged research misconduct to file a complaint.

5 WHAT HAPPENS AFTER A COMPLAINT IS FILED?

Who investigates?

Due to the nature of research conducted by NSF, recipients of NSF grants bear primary responsibility for preventing and detecting research misconduct and for the inquiry, investigation, and adjudication of any alleged misconduct. When NSF becomes aware of misconduct at an awardee institution, NSF should inform that institution of the allegation. If the OIG determines that alleged research misconduct involves potential civil or criminal violations, the OIG may refer the matter to the Department of Justice.

In most cases, NSF will rely on awardee institutions to initiate an inquiry and, if necessary, an investigation. NSF may also defer to investigations of the matter by another federal agency or NSF may choose to proceed with its own inquiry.

When an awardee institution conducts its own inquiry, it should inform NSF if that inquiry determines that an investigation is warranted, keep NSF updated on the status of the investigation, and provide NSF with the final investigation report (45 C.F.R. § 689.4).

While NSF encourages institutions to conduct their own inquiries/investigations, they must promptly notify the OIG should they become aware during an inquiry or investigation that:

1. Public health or safety is at risk.
2. NSF's resources, reputation, or other interests need protecting.
3. There is reasonable indication of possible violations of civil or criminal law.
4. Research activities should be suspended.
5. Federal action may be needed to protect the interests of a subject of the investigation or of others potentially affected.
6. The scientific community or the public should be informed.

An inquiry consists of preliminary information-gathering and preliminary fact-finding to determine whether an allegation or apparent instance of research misconduct has substance and if an investigation is warranted. An investigation must be undertaken if the inquiry determines the allegation or apparent instance of research misconduct has substance. An investigation is the formal development, examination, and evaluation of a factual record to determine whether research misconduct has taken place, to assess its extent and consequences, and to evaluate appropriate action (45 C.F.R. § 689.2(b)).

In some instances, after an inquiry or during an external or NSF investigation, the Deputy Director may order that interim actions be taken to protect federal resources or guard against continuation of any suspected or alleged research misconduct (examples of interim actions include suspending an existing reward, proscribing or restricting particular research activities, and restricting or suspending participation as an NSF reviewer, advisor, or consultant (45 C.F.R. §689.3(c))).

When NSF handles the claim of research misconduct, the OIG oversees the process and conducts inquiries and investigations (45 C.F.R. § 689.2(f)).

Is the confidentiality of the parties protected?

To the extent possible, the identity of sources who wish to remain anonymous are to be kept confidential, and files are to be treated in a way that exempts them from disclosure under the Freedom of Information Act (45 C.F.R. § 689.5).

How long will the investigation take?

When an awardee institution chooses to conduct an inquiry, the process and decision about whether an investigation is warranted should be completed within 90 days. An investigation and disposition should be completed within 180 days. If the OIG does not receive the results of this investigation within the 180 days, NSF may launch its own investigation.

If the OIG proceeds with its own inquiry it should complete the inquiry within 90 days and, if an investigation is warranted, complete the investigation within 180 days of initiating it.

Do the parties have a right to a hearing?

If the OIG initiates a formal investigation into alleged research misconduct, that investigation may include "an opportunity for the respondent to be heard." Such an opportunity does not appear to be guaranteed; there is no provision for an opportunity for the complainant to be heard (45 C.F.R. § 689.6(d)(6)).

Do the parties have a right to respond to the findings of the investigation?

Upon an investigation finding of no research misconduct, the OIG will notify the subject of the investigation and, if appropriate, the informant of this finding.

If misconduct is found, the OIG should provide the subject of the investigation with the investigation report and invite them to submit comments or rebuttal. Comments or rebuttal submitted within the period allowed, normally 30 days, will receive full consideration and may lead to revision of the report or of a recommended disposition (45 C.F.R. § 689.9(c)(2)(i)).

6 WHAT HAPPENS AFTER THE INVESTIGATION ENDS?

The NSF investigation report (or a report from a satisfactory external investigation) must be sent to the Deputy Director within 45 days of completion of the NSF investigation or receiving the report from a satisfactory external investigation. The OIG will submit the investigation report to the Deputy Director together with any comments or rebuttal from the subject of the investigation as well as the recommended disposition. The recommended disposition will propose any final actions to be taken by NSF (45 C.F.R. § 689.9(c)(2)(ii)).

Prior to issuing a disposition, the Deputy Director may initiate further hearings or investigation. Within 120 days after receiving the OIG's recommendations or after completion of any further proceedings, the Deputy Director will send the affected individual or institution a written disposition, specifying actions to be taken. The decision will include instructions on how to pursue an appeal to the Director (45 C.F.R. § 689.9(c)(2)(iii)).

If a loss of scientific integrity is found, who decides what the resolution/remedy should be?

The Deputy Director decides the resolution (if debarment is determined to be the appropriate resolution then the procedures for determining the remedy are set forth in 45 C.F.R . § 620).

Do the parties have the right to appeal if initial decision is not in their favor?

An affected individual or institution may appeal to the Director in writing within 30 days after receiving the Deputy Director's written decision. The Director may appoint an uninvolved NSF officer or employee to review an appeal and make recommendations. The Director will normally inform the appellant of a final decision within 60 days after receiving the appeal. That decision will be the final administrative action of NSF (45 C.F.R. § 689.10).

What are the penalties for misconduct?

45 C.F.R. § 689.3 lists different categories of final actions to be taken in the event that research misconduct is found. These are categorized as Group I, Group II, and Group III actions with Group I being minimal restrictions and Group III being the most severe restrictions. When considering the action to take, NSF officials should consider how serious the misconduct was; the degree to which the misconduct was knowing, intentional, or reckless; whether it was an isolated event or part of a pattern; whether it had a significant impact on the research record, research subjects, other researchers, institutions, or the public welfare; and; any other relevant circumstances.

The penalties imposed may include:

- Group I actions
  - Send a letter of reprimand to the individual or institution.
  - Require as a condition of an award that for a specified period an individual or institution obtain special prior approval of particular activities from NSF.

- Require for a specific period that an institutional official other than those guilty of misconduct certify the accuracy of reports generated under an award or provide assurance of compliance with particular policies, regulations, guidelines, or special terms and conditions.

- Group II actions
  - Totally or partially suspend an active award, or restrict for a specified period designated activities or expenditures under an active award.
  - Require for a specified period special reviews of all requests for funding from an affected individual or institution to ensure that steps have been taken to prevent repetition of the misconduct.
  - Require a correction to the research record.

- Group III actions
  - Terminate an active award.
  - Prohibit participation of an individual as an NSF reviewer, advisor, or consultant for a specified period.
  - Debar or suspend an individual or institution from participation in Federal programs for a specified period after further proceedings

7 ADDITIONAL RELEVANT POLICIES AND RESOURCES

- NSF Manual 15: Conflicts of Interest and Standards of Ethical Conduct
- NSF Research Misconduct 45 CFR Part 689
- NSF Open Government site (contains NSF Open Government Plan 4.0)
- Research.gov
- NSF Award and Administration Guide, Chapter II

8 REPRESENTATIVE CASES AND OUTCOMES

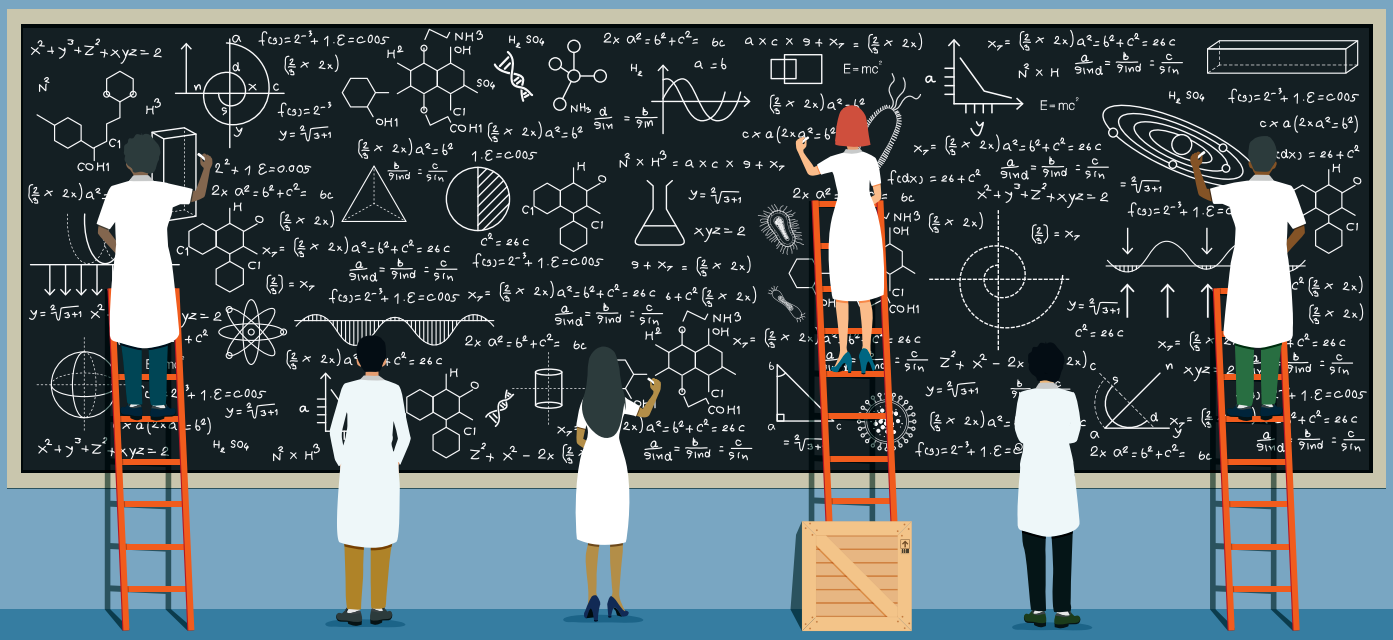
While NSF does not address violations of scientific integrity beyond research misconduct, it does make anonymized summaries of claims of research misconduct publicly available in OIG's Semiannual Report to Congress (found here). The following examples demonstrate trends gleaned from the summaries.

Falsifying examples to support conclusions is considered an act of research misconduct. For example, an NSF-funded graduate student falsified examples to support conclusions in a paper submitted to a conference. Following an investigation by the student's university that found misconduct, the NSF OIG conducted an independent investigation and found that the university's finding of misconduct was correct and discovered additional likely examples of falsification. The student received a letter of reprimand from NSF, in addition to the university's decision to implement a 6-month suspension.

Fabricating data is research misconduct. For example, a university professor funded by NSF altered data in a manuscript to show a desired result and during the investigation blamed students for not properly analyzing the data and also attributed some data to a colleague who did not exist. The university terminated his employment and NSF debarred him for 3 years and imposed additional restrictions following the end of the debarment.

Falsifying letters of support and plagiarizing proposals is research misconduct. For example, a principal investigator (PI) falsified letters of support and included plagiarized material in proposals. NSF found that the actions constituted research misconduct and barred the PI from serving as an NSF reviewer, advisor, or consultant for 3 years.

Plagiarizing from a declined NSF proposal may not constitute research misconduct. For example, a former NSF program officer was initially found to have committed research misconduct in plagiarizing content from a declined NSF proposal. However, on appeal NSF vacated the finding but required him to be subject to certain other restrictions including agreeing that for six years he would not seek employment with NSF in any capacity, would not serve as an Intergovernmental Personnel Act assignee to NSF, and would not participate as an NSF peer reviewer, advisor, or consultant.



A QUICK GUIDE TO THE SCIENTIFIC INTEGRITY POLICY AT THE

United States Department of Agriculture (USDA)

USDA Table of Contents

1 SUMMARY

The USDA scientific integrity policy is primarily contained within two documents. One is Departmental Regulation Number DR 1074-001 on Scientific Integrity (referred to in this guide as the policy and SIP). The second document is the Departmental Manual on Procedures for Responding to Allegations of Compromised Scientific Integrity (referred to in this guide as the departmental manual and manual). The policy addresses the main concerns related to scientific integrity, while the manual describes the process of investigating a claim.

The USDA policy has important strengths. It clearly defines scientific integrity, which includes traditional research misconduct, as well as political interference and other inappropriate influence on scientific products. The manual sets out a comprehensive process for evaluating scientific integrity claims, which ensures opportunities for the accused person to respond to the complaint, for the person making the complaint to ask for reconsideration of the decision, and also for a right to appeal if a scientific integrity violation is found. The manual also describes potential disciplinary actions and steps that can be taken to restore scientific integrity.

But there are ways in which the USDA could improve its scientific integrity policy. For example, unlike some agencies, it does not recognize and protect scientists' ability to freely communicate with the press and the public as part of scientific integrity. In addition, information in the policy is complex and hard to follow despite the inclusion of a flow chart meant to guide readers through the claim process.

2 WHAT DOES THE POLICY GOVERN?

The policy defines scientific integrity as "the condition resulting from adherence to professional values and practices when conducting, reporting and applying the results of science that ensures objectivity, clarity and reproducibility, and that provides insulation from bias, fabrication, falsification, plagiarism, inappropriate influence, political interference, censorship, and inadequate procedural and information security" (SIP § 9(dd)).

This definition goes beyond traditional research misconduct and includes important issues such as political interference and inappropriate interference. The definitions section of the policy contains examples of what types of actions constitute compromises of scientific integrity. These include inappropriately altering or misrepresenting scientific products in public communications and using scientific products that are not representative of current research to inform decision making and policy formation. The policy also mentions that ethical improprieties and regulatory non-compliance do not constitute a compromise of scientific integrity.

Research Misconduct

According to the policy, one way to compromise scientific integrity is to commit research misconduct (SIP § 8(a) and (c)). Such misconduct is defined as "fabrication, falsification, or plagiarism in proposing, performing

or reviewing research, or in reporting research results. Research misconduct does not include honest error or differences of opinion" (SIP § 9(z)).

Conflicts of Interest

The USDA Code of Scientific Ethics, Appendix A of the policy, requires scientists to disclose conflicts of interest (SIP Appendix A at A-1). A conflict of interest is defined as "any financial or non-financial interest that conflicts with the judgment of an individual when conducting scientific activities because it could: 1) impair an individual's objectivity, 2) create an unfair competitive advantage for any person or organization, or 3) create the appearance of either (1) or (2)" (SIP § 9(g)).

Political Interference

According to the policy, "scientific findings and products must not be suppressed or altered for political purposes and must not be subject to inappropriate influence" (SIP § 6(a)).

The policy discusses the free flow of scientific and technological information and states that USDA priorities are to ensure that:

- USDA scientists can communicate their scientific findings without political interference or inappropriate influence.
- USDA officials do not direct USDA scientists and technological experts to alter scientific and technological research findings for political or public relations purposes.
- USDA officials do not ask nor suggest that USDA scientists and technological experts alter the presentation of their scientific findings in a manner that compromises the objectivity or accurate representation of those findings.

Aside from general statements that scientific findings must not be subject to inappropriate influence, the USDA policy does not deal with scientists being subjected to threats or intimidation regarding their work. In this respect, the policy is not nearly as comprehensive as the policies of some other agencies that explicitly make political interference, threats, and intimidation independent violations of scientific integrity.

Threats and Intimidation

Aside from general statements that scientific findings must not be subject to inappropriate influence, the USDA policy does not deal with scientists being subjected to threats or intimidation regarding their work.

Use of Science in Agency Decision-Making

A goal of the policy is to ensure the quality, accuracy, and transparency of the scientific information used to support policy and decision making (SIP § 6(c)). This includes using scientific information derived from well-established scientific processes; ensuring that the data used to support policy decisions undergoes independent peer review; ensuring scientific information used for policy decisions is reflected accurately; and making the scientific findings or conclusions considered or relied on in policy decisions available online and in open formats.

Science Communication

Timeliness: The policy does not address the need for timeliness in the dissemination of scientific information.

Press: The USDA aims to facilitate the free flow of scientific and technological information. While the policy does not expressly grant scientists the right to talk to the press, it implies such a right exists by encouraging (but not requiring) USDA scientists to communicate with the media about their scientific findings, data, and results (SIP § 6(e)).

The policy says scientists should coordinate any interactions with the press with their immediate supervisors and public affairs office(s). This provision could have a chilling effect by giving scientists the impression that they cannot speak freely to the press about their work.

In addition, the policy gives USDA agencies and staff offices the right to "identify and offer knowledgeable spokespersons, other than the scientist who originally received the media query, to respond..." This provision is concerning because it could be interpreted as giving the USDA the right to, at its own discretion, prevent a scientist from speaking to the press about their work and direct inquiries to a spokesperson of the agency's choice instead.

Social media: The policy does not expressly cover social media. The USDA has a separate policy on new media technologies that provides detailed guidance on social media use.

Testifying before Congress: While the policy does not explicitly state that agency scientists have a right to testify before Congress, that right is protected elsewhere in federal law.

Right of scientists to review and/or correct agency communications: The policy does not grant scientists the right to review or correct agency communications that rely on their work or attribute them as authors. However, the USDA Office of Communications is intended to ensure that the work and views of scientists are accurately represented in agency communications (SIP § 6(e)((1)(b)).

Publishing and lecturing: The policy encourages scientists to interact with the scientific community by publishing their research findings in peer-reviewed, professional, or scholarly journals; presenting their findings at professional meetings; and serving on editorial boards of journals (SIP § 6(f)).

Scientific societies: The policy encourages scientists to participate in professional societies, committees, and task forces, and serve as officers or on governing boards of such organizations (SIP § 6(f)).

Opinion statements: Scientists can communicate with and express their personal views or opinions to the media and public, but they should not claim to officially represent the USDA or its policies (SIP § 6(e)(1)(c)(2)). When speaking to the media in an official capacity, USDA scientists should avoid making statements that could be construed as judgments of or recommendations on official USDA policy unless they have prior approval to do so.

Hiring Practices

Candidates for scientific and technical positions must be selected and retained based on their scientific and technical knowledge, credentials, experience, and integrity (SIP § 6(b)).

Federal Advisory Committees

The USDA recognizes that Federal Advisory Committees are important to maintaining the agency's scientific integrity. It requires that the recruitment process for new committee members be as transparent and public as possible, and that the selection of members be based on expertise, knowledge, and contributions to the relevant subject area. Similarly, committee members' professional biographical information and conflict of interest waivers must be publicly available. Finally, the policy ensures that all reports and recommendations produced by such committees will not be subject to intra- or inter-agency revision (SIP § 6(d)).

Whistleblower Protections

The policy cites the Whistleblower Protection Act (WPA) and other existing protections in federal law for whistleblowers, but it does not provide any additional rights or protections for whistleblowers (SIP § 6(i)). It also says that the USDA will comply with applicable department and agency-specific WPA regulations, rules, and policies, but there is no further information about what these may be or where they can be found.

3 WHO DOES THE POLICY GOVERN?

The policy governs all USDA political and career employees who engage in, supervise, manage, or report on scientific activities, analyze and/or publicly communicate information resulting from scientific activities, and/or use information derived from scientific activities in policy and decision making (SIP § 3(a)(2)).

It also applies to "contractors, cooperators, partners, permittees, lessees, grantees, and volunteers" who engage in those same activities (SIP § 3(b)).

4 WHAT IS THE PROCESS FOR FILING A COMPLAINT?

This guide is not a substitute for legal advice about any specific situation. If you are considering filing a scientific integrity complaint, or are the subject of a complaint, please contact the Climate Science Legal Defense Fund or another attorney for advice about your particular circumstances. Nonetheless, we will provide below general information about what the process may entail.

The procedures for filing, investigating, and resolving allegations of compromised scientific integrity are described in the departmental manual that accompanies USDA's policy. This manual contains a detailed structure meant to facilitate the oversight of scientific integrity.

Before examining the process for filing a complaint, it is helpful to understand this structure and how the internal roles relate to the different stages of the complaint process.

- The USDA Chief Scientist oversees all aspects of the scientific integrity policy.
- The Chief Scientist designates a Departmental Scientific Integrity Officer (DSIO), who is responsible for implementing the scientific integrity policy under the direction of the Chief Scientist. This should be a senior career staff person with scientific and/or scholarly credentials. The DSIO serves as the department-level contact for all questions related to the scientific integrity policy.
- The USDA Science Counsel is responsible for providing oversight of departmental and agency responses to allegations of compromised scientific integrity.
- Each USDA agency will appoint an employee to serve as the Agency Research Integrity Officer (ASIO) and the agency-level contact for all questions relating to the scientific integrity policy. The ASIO should be a career appointee (not a political appointee) and have previous experience conducting scientific activities.

The last page of the manual features a flow chart that summarizes the claim evaluation process and a guide to the options at each step of the process (see Appendix A).

Who can make a claim under the policy?

USDA employees and members of the public can bring scientific integrity claims under the USDA's policy (Manual § 7(b)(1) and (2)).

Where and how can a scientist make a claim?

In most cases, USDA employees should submit allegations to the ASIO at the agency or staff office employing the person accused of the violation (known as the respondent). Members of the public can report allegations to the appropriate ASIO, DSIO, and/or the Office of the Inspector General (OIG) (Manual § 7(b)(1) and (2)). USDA employees with a scientific concern are encouraged (but not required) to consult with the appropriate AISO or DSIO before deciding whether to file a formal complaint.

What should a complaint contain?

The complaint should contain details of the alleged compromise of scientific integrity, to the extent known, including:

- A description of the scientific action in question
- The name(s) of the persons involved in the scientific action
- The name(s) of the persons believed to have compromised scientific integrity
- Bibliographic information for publications etc. where the scientific activity in question was reported
- Relevant dates and chronologies

- The current storage location of the data in question
- Any evidence that suggests the compromise was committed intentionally
- The basis for the allegation including relationship to the respondent, the individual reporting's access to the evidence and any other witnesses

The allegation should be accompanied by all relevant evidence in the individual's authorized possession (Manual § 7(b)(4)).

Is there a deadline for filing a complaint?

The policy does not specify how long a complainant has to file a claim after an alleged violation.

5 WHAT HAPPENS AFTER A COMPLAINT IS FILED?

The USDA is better than some other agencies at describing what is required for a finding that scientific integrity has been compromised and establishing a clear evidentiary standard (Manual § 7(e)(2)). For a finding that scientific integrity has been compromised:

- There must be a breach of scientific integrity in the conducting or reporting of scientific activities and/or the use of the results of scientific activities.
- There must be a failure to comply with the scientific integrity policy or a significant departure from accepted practices of the relevant scientific community.
- The allegation must be proven by a preponderance of evidence.
- The USDA views research misconduct as a specific subset of compromised scientific integrity. For a finding that research misconduct has occurred:
  - The alleged behavior must fall within the definition of research misconduct, which is fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results.
  - There must be a significant departure from accepted practices of the relevant research community.
  - The misconduct must be committed intentionally, knowingly, or recklessly.
  - The allegation must be proven by a preponderance of the evidence.

Who investigates?

The ASIO investigates allegations that scientific integrity has been compromised; the investigation has three phases: assessment, inquiry, and investigation.

Assessment

Once a formal complaint is received, the ASIO will review and assess the allegations, and decide whether to initiate a formal inquiry. At this stage, the ASIO must determine whether the allegation, on its face, falls within the scope of the departmental manual, pertains to a compromise of scientific integrity, and is credible and specific.

If these criteria are met, the ASIO must initiate an inquiry. The ASIO must make this determination within 10 days of receiving the complaint, and the person making the complaint, known as the informant, must be notified in writing of the ASIO's decision and its basis. (Manual § 7(c)). The complainant then has 30 days to submit a request for reconsideration to the AISO and DSIO.

Inquiry

The ASIO will open an inquiry if the assessment shows that the complaint passes the basic jurisdictional and credibility thresholds (Manual § 7(d)).

The purpose of the inquiry is to conduct a preliminary review of the readily available evidence and determine whether the allegation has sufficient substance to warrant an investigation. The inquiry does not involve a full review of all evidence or exhaustive interviews. It is simply a review of the allegations submitted for inquiry, the evidence submitted by the informant and the respondent, and other available evidence. The respondent should receive written notice of the inquiry and must be given reasonable access to evidence supporting an allegation and the opportunity submit their own evidence.

ASIO should conduct the inquiry in coordination with an employee relations or human relations specialist. Those conducting the inquiry should have no conflicts of interest with the issue in question, the informant, or the respondent. They may also consult subject matter experts to aid in evidence review.

The inquiry should culminate in a report containing, among other things, a recommendation about whether or not to open an investigation and an analysis of how the evidence reviewed supports that recommendation. The report should be given to the DSIO and agency staff/leadership; it may also be provided to employee relations or human resources.

In some cases, even if the inquiry determines that an investigation is not required, agency staff or office leadership may override the decision and call for an investigation. The justification for doing so must be documented in writing; the complainant and the respondent must be notified of the decision.

The inquiry should be completed within 60 days of the date the ASIO determined an inquiry was warranted. If the inquiry results in a determination that an investigation is not warranted and agency/staff office leadership does not issue a decision to the contrary, the ASIO must notify the complainant, who has a right to request reconsideration within 30 days.

Investigation

An investigation will be opened if the inquiry determines that the allegation and evidence raise a reasonable suspicion that scientific integrity was compromised (Manual § 7(e)). Both the informant and the respondent must be notified in writing that the allegation was referred to an investigation. At this stage, the respondent must be provided with a copy of the inquiry report, and have an opportunity to comment on it.

The investigation should be conducted by a panel composed of a credentialed USDA personnel misconduct investigator and two or more agency/staff office employees with experience conducting or overseeing scientific activities. The ASIO may not be assigned to the panel but can provide administrative support. The investigation must involve a thorough review of the evidence and, if possible, written or oral statements from the complainant, the respondent, and any other witnesses able to provide reliable documentary or testimonial evidence (Manual § 7(e)(4)).

After reviewing the evidence and testimony, the panel must make recommendations about whether and to what extent scientific integrity was compromised, who is responsible, and what corrective actions are appropriate. The panel will share its recommendations in an investigation report that includes a description of the evidence reviewed, an analysis of how the preponderance of evidence supports the finding that scientific integrity has or has not been compromised, and a response to any contrary evidence including the respondent's affirmative defense recommendations of corrective or other administrative actions (Manual § 7(e)(5)).

The investigation should be completed within 120 days of the date on which agency/staff office leadership is notified that the inquiry determined an investigation was warranted (Manual § 7(e)(3)). The respondent should receive a copy of the investigation report and the evidence cited in the report, and should have at least 15 days to provide comments. The respondent's comments should be included in the final investigation report (Manual § 7(e)(6)(b)).

Is the confidentiality of the parties protected?

During the process of evaluating a claim, the individuals involved should keep the information reviewed confidential to the extent possible (Manual § 7(a)(3)). However, certain information may be provided to USDA leadership on a need-to-know basis, such as when public health or safety is at risk.

A scientist can make a complaint anonymously, although this may make it more difficult to assess and investigate (Manual § 7(b)(5)).

Do the parties have a right to a hearing?

Both parties may be interviewed and the respondent has an opportunity to comment on findings, but the departmental manual does not mention a right to a formal, in-person hearing.

Do the parties have a right to respond to the findings of the investigation?

Respondents must be given an opportunity to respond to substantive allegations, the supporting evidence, and any proposed findings and corrective actions (Manual § 7(a)(6)(d)) (specific deadlines/details are set forth in the relevant sections). The manual also gives the complainant the opportunity to respond at most stages of the proceedings including requesting reconsideration should it be determined that an inquiry is not warranted (Manual § 7(c)(3)) and requesting reconsideration should an inquiry determine that an investigation is not warranted (Manual § 7(d)(8)).

6 WHAT HAPPENS AFTER THE INVESTIGATION ENDS?

The final adjudication is made by the Adjudicating Officer (AO), who is the head of the agency/staff office that employed the respondent at the time the alleged misconduct took place. The AO should not be someone who has been involved in conducting the inquiry or investigation and must not have a conflict of interest. The AO reviews the investigation report, the evidence cited in it, and any comments from the respondent (Manual § 7(f)).

If a scientific integrity is found to have been compromised, who decides what the resolution/remedy should be?

The AO issues a written decision indicating whether scientific integrity was compromised and, if so, who compromised it, and the appropriate corrective action. This decision memorandum may concur with all, some, or none of the recommendations of the investigation report. This should be completed within 30 days of the AO's receipt of the investigation report.

Do the parties have the right to appeal if initial decision is not in their favor?

The ASIO or other designated official must provide the respondent a copy of the decision memorandum. If the adjudication results in a finding that the respondent compromised scientific integrity, the respondent must also be notified of the opportunity to appeal (Manual §7(g)). The respondent has 30 days from the day on which they are notified to appeal. The request for an appeal must be submitted to both the ASIO and the DSIO. There is no mention of whether an informant has the right to appeal.

If an appeal is submitted, the DSIO will convene a departmental scientific integrity review panel (DSIRP) to review the submission. The DSIRP will issue a memorandum to the USDA Chief Scientist for final review and determination whether to uphold, reverse, or modify the decision.

What are the penalties for misconduct?

The definitions section of the manual (§9(h)) lists the potential corrective actions, which include:

- Government-wide debarment
- Removal from a research project/suspension or termination of an active research award

- Correction or retraction of published scientific product
- Correction or retraction of USDA media releases
- Release of inappropriately suppressed scientific products
- Monitoring or supervision of future USDA scientific efforts/use of scientific information/dissemination of scientific information
- Required validation of data and/or sources
- Training and/or mentoring

7 ADDITIONAL RELEVANT POLICIES AND PROCEDURES

The policy incorporates a significant number of other relevant policies including, but not limited to:

- USDA DR 1495-001 New Media Roles, Responsibilities and Authorities
- 2 CFR 422, Research Institutions Conducting USDA-Funded Extramural Research; Research Misconduct
- USDA DR 1041-001 Advisory Committee Management
- USDA DR 1410-001 Publications Review/Clearance Policy
- USDA Ethics Issuance No. 09-1 Ethics Issues Related to USDA Scientists

8 REPRESENTATIVE CASES AND OUTCOMES

The USDA publishes summaries of scientific integrity cases and their outcomes online, making it more transparent than some scientific agencies. The following examples demonstrate how the USDA might handle certain scenarios.

Allegation determined not to meet standard of research misconduct: An allegation was made that research was falsified in a scientific report published by an advisory committee appointed by the USDA and another federal agency, which served as the lead agency for the advisory committee's activities. The lead department, ASIO, and ARIO each determined that the allegation pertained to a difference of opinion, which is excluded from the definition of research misconduct, and that no further action was warranted.

Allegation resolved by an inquiry: An allegation of plagiarism was made against a USDA-funded intern on the basis that they incorporated information into outreach program materials without attribution or permission. An inquiry determined that the content in question constituted a synthesis of general scientific information

(and not original research ideas, data, or unpublished findings that are covered by the USDA Code of Scientific Ethics) and it was prepared by a non-USDA federal entity for public outreach purposes. The matter was referred to employee relations and a decision was made by not to pursue the matter further because the intern had left the position and was no longer funded by the USDA. The materials were not used by USDA in its outreach efforts.

Allegations resolved by investigation and no finding of misconduct: An allegation of falsification and/or fabrication of research data involving publications published by USDA researchers. It was alleged that the same data was used in figures of two separate publications. An investigative committee determined that misconduct had not occurred because they could not identify any actual instances of fabrication or falsification.

Another instance of alleged plagiarism by a USDA researcher maintained that text was reused in official documents submitted to the agency. An investigation committee determined that misconduct had not occurred as the reused text was originally written by the respondent.

Allegation resolved by investigation and misconduct found: An allegation of research data falsification and/or fabrication involving a publication by USDA researchers; the claim was that the published data was not an accurate representation of the research record. An investigative committee determined that research misconduct had occurred. Corrective actions were taken to restore scientific integrity. These included correcting the publication to accurately reflect the research record and improving the agency review process to reduce the potential for future incidents.

Allegation resolved by another institution: An allegation of plagiarism was made in regard to USDA external research findings included in a manuscript submitted for publication in a journal. The university involved conducted an inquiry and determined that an investigation was warranted. The investigation resulted in a determination that research misconduct occurred; the ASIO accepted the university's findings and corrective actions and closed the case.

Allegation referred to another disciplinary board: An allegation was made that a USDA employee committed plagiarism by including verbatim text, which had been previously published by another (non-USDA affiliated) individual, in a book chapter without crediting or acknowledging the original source. A USDA Committee on Ethics in Science (CEIS) panel determined ethics misconduct occurred. Disciplinary actions were taken and the paragraphs in question were re-written.

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The Climate Science Legal Defense Fund produced this guide to help scientists understand their rights under federal agency scientific integrity policies. This guide concerns only U.S. laws, and nothing in it should be construed as legal advice for your individual situation.

CSLDF provides free counsel to scientists with legal questions pertaining to their work. Contact us at **(646) 801-0853** or email **lawyer@csldf.org** to arrange a free and confidential consultation with an attorney.

The Climate Science Legal Defense Fund (CSLDF) works to protect the scientific endeavor by helping defend climate scientists against politically and ideologically motivated attacks. CSLDF is a non-profit organization under section 501(c)(3) of the Internal Revenue Code.

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