USEPA Scientific Integrity Policy

I. Purpose

The Agency has established, and continues to promote, a culture of scientific integrity for all employees, contractors, grantees, and other covered entities. The purpose of this policy is to enhance and promote a continuing culture of scientific integrity. This policy aims to ensure the integrity of all aspects of activities that include proposing, conducting, reviewing, managing, communicating about science and scientific activities, and using the results of science. This policy replaces the Environmental Protection Agency's (EPA) 2012 Scientific Integrity Policy[1] and reaffirms and reestablishes the expectations and procedures needed to maintain scientific integrity at EPA. It also reaffirms the scope and role of a Scientific Integrity Official (SIO), a standing committee of Agency-wide deputy SIOs (DSIOs), and establishes the role of the Chief Scientist.

II. Background and Core Values

EPA's ability to pursue its mission to protect human health and the environment depends upon the integrity of the science upon which it relies. The environmental policies, decisions, guidance, and regulations that impact the lives of the residents of the United States every day must be grounded, at a most fundamental level, in robust, independent, high-quality science. The Agency has a longstanding commitment to scientific integrity.

[1] EPA Scientific Integrity Policy as updated, available at https://www.epa.gov/sites/default/files/2014-02/documents/scientific_integrity_policy_2012.pdf

At EPA, promoting a culture of scientific integrity is closely linked to transparency. The Agency remains committed to transparency in its interactions with all members of the public and its internal processes and procedures as allowable by applicable law. These values were made explicit in then Administrator William Ruckelshaus' "Fishbowl Memo" (May 19, 1983)[2]. This memorandum established a culture of integrity and openness for all employees by promising EPA would operate "in a fishbowl" and "will attempt to communicate with everyone from the environmentalists to those we regulate, and we will do so as openly as possible[3]."

In 1999, EPA developed Principles of Scientific Integrity[4] in conjunction with EPA's National Partnership Council, a partnership of Agency labor unions and management. These principles set forth the Agency's commitment to conducting science objectively, presenting results fairly and accurately, and avoiding conflicts of interest.

In 2003, EPA released Order 3120.5, Policy and Procedures for Addressing Research Misconduct[5], addressing fabrication, falsification, and plagiarism. Fabrication and falsification of research are investigated by the Office of the Inspector General (OIG) along with fraud, waste, and abuse. Plagiarism is normally investigated by the SIO and DSIOs.

In 2012, EPA issued its first Scientific Integrity Policy, and in 2013 appointed its first full-time SIO based on provisions in both the 2009 Presidential Memorandum on Scientific Integrity[6], and the 2010 Office of Science and Technology Policy (OSTP) Memorandum on Scientific Integrity[7]. Those documents, together with the 2021 Presidential Memorandum on Restoring Trust in Government Through Scientific Integrity and Evidence-based Policymaking[8], informed this Policy update. As stated in the 2021 Memorandum, "Scientific and technological information, data, and evidence are central to the development and iterative improvement of sound policies, and to the delivery of equitable services and programs, across every area of government[9]." This Policy was informed not only by these documents, but also EPA's decade of experience implementing the 2012 Policy, including analysis of each loss of scientific integrity brought to the SIO and the results of Agency-wide scientific integrity surveys[10]. Also critical to the development of this Policy were the experiences of Federal agencies, and the informed engagement of stakeholders both inside and outside of government as reflected in the actions of the 2022 National Science and Technology Council Scientific Integrity Fast Track Action Committee and their report, *Protecting the Integrity of*

[2] Ruckelshaus Takes Steps to Improve Flow of Agency Information [Fishbowl Policy]. May 19, 1983. EPA. Available at: https://www.epa.gov/scientific-integrity/ruckelshaus-takes-steps-improve-flow-agency-information-fishbowl-policy

[3] Ibid.

[4] EPA's Principles of Scientific Integrity Fact Sheet. 1999. EPA. Available at: https://www.epa.gov/scientific-integrity/epas-principles-scientific-integrity-fact-sheet

[5] Order 3120.5 Policy and Procedures for Research Misconduct. 2003. Available at https://www.epa.gov/sites/default/files/2014-04/documents/epapolicy.pdf

[6] Presidential Memorandum for the Heads of Executive Departments and Agencies on Scientific Integrity. March 9, 2009. The White House. Available at: https://obamawhitehouse.archives.gov/the-press-office/memorandum-heads-executive-departments-and-agencies-3-9-09

[7] Memorandum for the Heads of Executive Departments and Agencies on Scientific Integrity. December 17, 2010. Office of Science and Technology Policy. Available at: https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/scientific-integrity-memo-12172010.pdf

[8] Presidential Memorandum on Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policy Making, January 27, 2021. Available at:https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/memorandum-on-restoring-trust-in-government-through-scientific-integrity-and-evidence-based-policymaking/

[9] Ibid.

[10] Scientific Integrity Surveys Available at: https://www.epa.gov/scientific-integrity/scientific-integrity-surveys

Government Science[11] (SI-FTAC Report) and the National Science and Technology Council 2023 *Framework for Federal Scientific Integrity Policy and Practice*[12].

III. Scientific Integrity Definition and the Scientific Integrity Official

EPA has adopted the official Federal definition of scientific integrity found in the National Science and Technology Council 2023 *Framework for Federal Scientific Integrity Policy and Practice*[13]:

> *Scientific integrity is the adherence to professional practices, ethical behavior, and the principles of honesty and objectivity when conducting, managing, using the results of, and communicating about science and scientific activities. Inclusivity, transparency, and protection from inappropriate influence are hallmarks of scientific integrity.*

While the responsibility for upholding scientific integrity lies with all of EPA and other covered entities, EPA has designated a senior career employee as the Agency's SIO to champion and promote scientific integrity throughout the Agency, and to oversee implementation and iterative improvement of scientific integrity policies and processes. The SIO chairs a standing committee of DSIOs representing each EPA office and region.

The SIO is empowered with the independence necessary to further a culture of scientific integrity. The SIO gathers and protects information to support the review and evaluation of scientific integrity concerns. The SIO supports the Scientific Integrity Committee, which ensures implementation of corrective actions to restore or strengthen scientific integrity and coordinates with appropriate Agency authorities to enforce corrective and administrative actions, including those that may prevent scientific integrity concerns. The SIO, in conjunction with the Chief Scientist, the most senior career scientist in the Agency, advocates for appropriate engagement of career scientists with relevant decision-making expertise.

IV. Effective Date and Policy Amendments

This policy is effective when issued. This policy will be reviewed at least every three years by the Scientific Integrity Committee to ensure its effectiveness and adherence with applicable laws and regulations. Updates to this policy will be led by the SIO, recommended by the Scientific Integrity Committee, and approved by the Chief Scientist. Future revisions will be communicated to the Director of OSTP and posted to EPA's public website no less than 30 days prior to their implementation.

[11] A report by the Scientific Integrity Fast-Track Action Committee of the National Science and Technology Council. "Protecting the Integrity of Government Science." January 2022. Available at: https://www.whitehouse.gov/wp-content/uploads/2022/01/01-22-Protecting_the_Integrity_of_Government_Science.pdf

[12] A Framework for Federal Scientific Integrity Policy and Practice, January 2023. Available at: https://www.whitehouse.gov/wp-content/uploads/2023/01/01-2023-Framework-for-Federal-Scientific-Integrity-Policy-and-Practice.pdf

[13] Ibid.

V. Applicability and Scope

Scientific integrity is the responsibility of the entire EPA workforce. Covered entities who must adhere to the provisions of this policy include: all EPA employees, political appointees, contractors[14], grantees[15], special government employees and advisory committee members. The policy applies when covered entities propose, conduct, or review science, communicate about science or scientific activities, or apply science to decision making; and to all levels of employees who manage or supervise scientific activities or use scientific information.

All trainees, interns, fellows, partners, co-regulators (e.g., other federal agencies, states, Tribes, local municipalities), permittees, lessees, volunteers, and any other cooperators who engage or assist in scientific activities are expected to uphold the principles of scientific integrity established by this policy and may be required to do so as part of their respective agreements with EPA. Provisions of the policy will be set forth in individual agreements, contracts, statements of work, memoranda of understanding, etc., and/or established via issuance of a rule or policy.

VI. Authorities

This Scientific Integrity Policy is issued under Reorganization Plan No. 3 of 1970, 84 Stat. 2086 (July 9, 1970), which is the source of the Agency's housekeeping authority, and builds upon federal law and existing Agency and government-wide policies and guidance documents, enhancing EPA's overall commitment to scientific integrity. This policy will be implemented consistent with applicable law.

Pursuant to the 2021 Presidential Memorandum on Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policymaking[16], and consistent with the 2009 Presidential Memorandum on Scientific Integrity[17] and the 2010 OSTP Memorandum on Scientific Integrity[18], all Federal agencies must establish a scientific integrity policy. This policy is established in accordance with the following statutes:

1. The America COMPETES Act, as amended USC Pub. L. 110-69, section 1009
2. The Foundations for Evidenced-based Policymaking Act of 2018, USC Pub. L. 115-435
3. The Whistleblower Protection Act (WPA) of 1989, as amended USC Pub. L. 101-12
4. Standards of Ethical Conduct for Employees of the Executive Branch, 5 CFR Part 2635
5. The Federal Advisory Committee Act of 1972, 5 USC Pub. L. 92–463, §1, Oct. 1972, 86 Stat. 770
6. Employee Responsibilities and Conduct, 5 CFR Part 735
7. Federal Conflict of Interest Laws, 18 USC 201-209
8. The Federal Managers Financial Integrity Act, Pub. L. 97-255

[14] Environmental Protection Agency Acquisition Regulation (EPAAR); Scientific Integrity. October 19, 2020. EPA. Available at: https://www.federalregister.gov/documents/2020/10/19/2020-20665/environmental-protection-agency-acquisition-regulation-epaar-scientific-integrity

[15] EPA General Terms and Conditions Effective October 1, 2018. October 1, 2018. EPA. Available at: https://www.epa.gov/grants/epa-general-terms-and-conditions-effective-october-1-2018

[16] Presidential Memorandum on Restoring Trust in Government Through Scientific Integrity and Evidence-Based Policy Making, January 27, 2021. Available at: https://www.whitehouse.gov/briefing-room/presidential-actions/2021/01/27/memorandum-on-restoring-trust-in-government-through-scientific-integrity-and-evidence-based-policymaking/

[17] Presidential Memorandum for the Heads of Executive Departments and Agencies on Scientific Integrity. March 9, 2009. The White House. Available at: https://obamawhitehouse.archives.gov/the-press-office/memorandum-heads-executive-departments-and-agencies-3-9-09

[18] Memorandum for the Heads of Executive Departments and Agencies on Scientific Integrity. December 17, 2010. Office of Science and Technology Policy. Available at: https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/scientific-integrity-memo-12172010.pdf

VII. Definitions for the Purposes of this Policy

Advice: information or assistance provided by the SIO or any DSIO, including general discussions of administrative processes and procedures, clarifications of potential scientific integrity issues, clarification of any aspect of EPA's Scientific Integrity Policy, and discussion of whether a concern is a scientific integrity issue. Early consultations are not considered allegations of a violation of the Scientific Integrity Policy.

Allegation: an accusation of a suspected loss of scientific integrity or violation of the EPA Scientific Integrity Policy that is specifically designated as an allegation by the submitter.

Appearance of Conflict of Interest: when an employee is involved in a particular matter involving specific outside parties (including individual, corporate entities, etc.) and the circumstances are such that a reasonable person with knowledge of the relevant facts would question the employee's impartiality in the matter. Such circumstances include, but are not limited to, the involvement of a relative, spousal employer, or former employer in the matter .[19].

Conduct of Science: formulation of hypotheses, study design, testing, data collection and analysis, modeling, systematic review, statistical analysis, interpretation, findings, conclusions, and peer review.[20]

Covered Entities: all EPA employees, political appointees, contractors[21], grantees[22], special government employees, and Federal advisory committee members. The policy applies when they propose, conduct, or review science, communicate about science and scientific activities, and apply science to decision making; and to all levels of employees who manage or supervise scientific activities and use scientific information. All cooperators, trainees, interns, fellows, partners, co-regulators (e.g., other federal agencies, states, tribes, local municipalities), permittees, lessees, and volunteers who engage or assist in scientific activities are expected to uphold the principles of scientific integrity established by this policy and may be required to do so as part of their respective agreements with EPA.

Delay: cause something to take longer than reasonably expected or planned, postpone, or slow the completion or release of something. Delay in this policy refers to purposeful and unreasonable actions and not to normal time frames or the time needed for the completion of required processes.

Differing Scientific Opinion (DSO): a differing opinion of an EPA scientist who is or was substantively engaged in the science that may inform an EPA decision. It generally contrasts with a prevailing staff opinion included in a scientific product under development. The differing opinion must concern scientific data, analysis, interpretations, or conclusions, not policy options or decisions. Substantively engaged in the science refers to having contributed scientific expertise in an official capacity as a co-author or subject matter expert in the development of a scientific product, beyond presence at meetings or on mailing lists. If a scientist serves as a technical or peer reviewer, their scientific opinions should be lodged as part of

[19] Conflict of Interest. March 2023. National Institutes of Health Ethics Program. Available at: https://ethics.od.nih.gov/coi#:~:text=An%20appearance%20of%20a%20conflict,employee's%20impartiality%20in%20the%20matter

[20] A Framework for Federal Scientific Integrity Policy and Practice. January 2023. Available at: https://www.whitehouse.gov/wp-content/uploads/2023/01/01-2023-Framework-for-Federal-Scientific-Integrity-Policy-and-Practice.pdf

[21] Environmental Protection Agency Acquisition Regulation (EPAAR); Scientific Integrity. October 19, 2020. EPA. Available at: https://www.federalregister.gov/documents/2020/10/19/2020-20665/environmental-protection-agency-acquisition-regulation-epaar-scientific-integrity

[22] EPA General Terms and Conditions Effective October 1, 2018. Available at: https://www.epa.gov/grants/epa-general-terms-and-conditions-effective-october-1-2018

that process as governed by EPA's Peer Review Handbook. Scientific differences of opinion do not constitute insubordination or research misconduct and are part of the scientific process. A differing scientific opinion does not include personal opinions about scientific issues that are not accompanied by scientific arguments.

Diversity, Equity, Inclusion, and Accessibility: the practice of including the many communities, identities, races, ethnicities, backgrounds, abilities, cultures, and beliefs of the residents of the United States, including underserved communities; and the consistent and systematic fair, just, and impartial treatment of all individuals, including those who belong to underserved communities that have been denied such treatment. It is also the recognition, appreciation, and use of the talents and skills of employees of all backgrounds and the design, construction, development, and maintenance of facilities, information and communication technology, programs, and services so that all people, including those with disabilities, can fully and independently use them.[23]

Environmental Information: includes data and information that describe environmental processes or conditions which support EPA's mission of protecting human health and the environment.[24]

Ethical Behavior: activities that reflect the norms for conduct that distinguish between acceptable and unacceptable behavior such as honesty, lawfulness, equity, and inclusion.[25]

Fabrication: making up data or results and recording or reporting them.[26]

Falsification: manipulating research materials or equipment or processes or changing or omitting data or results such that the research is not accurately represented in the research record.[27]

Inappropriate Influence: the attempt to shape or interfere in scientific activities, or the communication about or use of scientific activities or findings, against well-accepted scientific methods and theories without scientific justification.

Inclusivity: the practice of intentionally ensuring full participation of all people and all groups, including marginalized, underserved, and underrepresented contributors, without bias or prejudice. Full participation is enabled through equitable access and fair treatment in the organization. Inclusivity also means asking questions and conducting scientific activities that serve diverse constituencies and contribute to the equitable delivery of government services.[28]

[23] Derived from Executive Order on Diversity, Equity, Inclusion, and Accessibility in the Federal Workforce. June 25, 2021. Available at: https://www.whitehouse.gov/briefing-room/presidential-actions/2021/06/25/executive-order-on-diversity-equity-inclusion-and-accessibility-in-the-federal-workforce/

[24] Environmental Information Quality Policy, April 10, 2023, Policy Directive No: CIO 2105.3. Available at: https://www.epa.gov/system/files/documents/2023-04/environmental_information_quality_policy.pdf

[25] A Framework for Federal Scientific Integrity Policy and Practice. January 2023. Available at: https://www.whitehouse.gov/wp-content/uploads/2023/01/01-2023-Framework-for-Federal-Scientific-Integrity-Policy-and-Practice.pdf

[26] Fostering Integrity in Research. 2017. National Academies of Sciences, Engineering, and Medicine. The National Academies Press. Available at: https://nap.nationalacademies.org/catalog/21896/fostering-integrity-in-research

[27] Ibid.

[28] Executive Order on Diversity, Equity, Inclusion, and Accessibility in the Federal Workforce. June 25, 2021. Available at: https://www.whitehouse.gov/briefing-room/presidential-actions/2021/06/25/executive-orderon-diversity-equity-inclusion-and-accessibility-in-the-federal-workforce/

Interference: inappropriate, scientifically unjustified intervention in the conduct, management, communication, or use of science. It includes censorship, suppression, or distortion of scientific or technological findings, data, environmental information, or conclusions; inhibiting scientific independence during clearance and review; scientifically unjustified intervention in research and data collection; and/or inappropriate engagement or participation in the peer review process or on Federal advisory committees. [29]

Loss of Scientific Integrity: failure to adhere to the Scientific Integrity Policy or to the principles of honesty, objectivity, and transparency; professional practices; and/or ethical behavior when conducting, managing, using the results of and communicating about science and scientific activities.

Peer Review: a documented process for enhancing a scientific or technical work product so that the decision or position taken by the Agency, based on that product, has a sound, credible basis. It is performed by credible individuals who are independent of those who performed the work and who are collectively equivalent in technical expertise to those who performed the original work.[30]

Plagiarism: the appropriation of another person's ideas, processes, results, or words without giving appropriate credit.[31]

Policy: a high-level statement of principles that defines a course of action for a specific purpose and establishes broad elements that govern EPA's decision making.[32]

Political Interference: interference conducted by political officials and/or motivated by political considerations.[33] It also includes interference by career employees acting under the direction of a political appointee or for their own political purposes.

Professional Practices: conducting oneself with the qualities that are characterized by skill, competence, ethics, and courtesy.[34]

Quality: the totality of processes, procedures, features, and characteristics of a product or service that bear on its ability to meet the stated or implied needs and expectations of the user.[35]

[29] A Framework for Federal Scientific Integrity Policy and Practice. January 2023. Available at: https://www.whitehouse.gov/wp-content/uploads/2023/01/01-2023-Framework-for-Federal-Scientific-Integrity-Policy-and-Practice.pdf

[30] U.S. Environmental Protection Agency Science and Technology Policy Council Peer Review Handbook 4th Edition (2015). October 2015. EPA. Available at: https://www.epa.gov/osa/peer-review-handbook-4th-edition-2015

[31] Federal Policy on Research Misconduct, Dec. 6, 2000. Office of Science and Technological Policy. Available at: https://www.govinfo.gov/content/pkg/FR-2000-12-06/pdf/00-30852.pdf

[32] EPA Terms & Acronyms. January 2023. Available at: https://sor.epa.gov/sor_internet/registry/termreg/searchandretrieve/termsandacronyms/search.do?search=&term=Policy&matchCriteria=Contains&checkedAcronym=true&checkedTerm=true&hasDefinitions=true#formTop

[33] Adapted from A Framework for Federal Scientific Integrity Policy and Practice. January 2023. Available at: https://www.whitehouse.gov/wp-content/uploads/2023/01/01-2023-Framework-for-Federal-Scientific-Integrity-Policy-and-Practice.pdf

[34] Ibid.

[35] Environmental Information Quality Policy, April 10, 2023 Policy Directive No: CIO 2105. Available at: https://www.epa.gov/system/files/documents/2023-04/environmental_information_quality_policy.pdf

Quality Assurance: The management of an integrated system of activities involving planning, implementation, documentation, assessment, reporting, and quality improvement to ensure that a process, item, or service is of the type and quality needed and expected by the organization.[36]

Research Misconduct: fabrication, falsification, or plagiarism in proposing, performing, or reviewing research, or in reporting research results; or ordering, advising, or suggesting that subordinates engage in research misconduct. Research misconduct does not include honest error or differences of opinion.[37]

Research Security: safeguarding the research enterprise against the misappropriation of research and development to the detriment of national or economic security, related violations of research integrity, and foreign government interference.[38]

Science: the careful study of the structure and behavior of the physical world, especially by watching, doing experiments, and developing theories to describe the results.[39] "Science" and "scientific" are expansive terms that refer to the full spectrum of scientific endeavors, e.g., basic science, applied science, engineering, technology, economics, social sciences, and statistics.[40]

Scientific Activities: activities that involve the development and application of scientific methods and theories in a systematic manner, including, but not limited to: data collection, inventorying, monitoring, statistical analysis, surveying, observations, experimentation, study, research, integration, economic analysis, forecasting, predictive analytics, inference, modeling, technology development, scientific assessment[41], and qualitative analysis.

Scientific Integrity: the adherence to professional practices, ethical behavior, and the principles of honesty and objectivity when conducting, managing, using the results of, and communicating about science and scientific activities. Inclusivity, transparency, and protection from inappropriate influence are hallmarks of scientific integrity.[42]

Scientific Products: work products that contain scientific information. These include but are not limited to: journal publications, reports, abstracts, posters, presentations, audio recordings, videos, web content, risk assessments, technical studies and guidance, analytic methods, scientific database designs, technical tools and models, technical protocols, statistical surveys/studies, technical background materials, technical guidance, research plans, and research strategies. They can support a research agenda, regulatory program, policy position, or other EPA position or action[43].

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[36] Ibid.

[37] Policy and Procedures for Addressing Research Misconduct EPA Order 33120.5 (March 18, 2003). Available at: https://www.epa.gov/sites/default/files/2014-04/documents/epapolicy.pdf

[38] Protecting the Integrity of Government Science. January 2022. NSTC. Available at: https://www.whitehouse.gov/wp-content/uploads/2022/01/01-22-Protecting_the_Integrity_of_Government_Science.pdf

[39] Science. February 2023. The Cambridge Dictionary. Available at: https://dictionary.cambridge.org/us/dictionary/english/science

[40] Protecting the Integrity of Government Science. January 2022. NSTC. Available at: https://www.whitehouse.gov/wp-content/uploads/2022/01/01-22-Protecting_the_Integrity_of_Government_Science.pdf

[41] Based on the definition in A Framework for Federal Scientific Integrity Policy and Practice. January 2023. Available at: https://www.whitehouse.gov/wp-content/uploads/2023/01/01-2023-Framework-for-Federal-Scientific-Integrity-Policy-and-Practice.pdf

[42] Ibid.

[43] EPA Peer Review Handbook 4th Edition. October 2015. EPA. https://www.epa.gov/sites/production/files/2016-03/documents/epa_peer_review_handbook_4th_edition.pdf

Scientist: anyone who collects, generates, uses, or evaluates scientific data, environmental information, analyses, or products.[44]

Suppression: Preventing something from being expressed or known[45].

Transparency: ensuring all relevant data and information used to inform decision making or actions are visible, accessible, and easily usable by affected parties to the extent permitted by law.[46]

VIII. Policy Provisions

Promoting a Culture of Scientific Integrity

EPA reaffirms and will promote a culture of scientific integrity across EPA by enhancing transparency and protecting Agency scientists. This means (1) creating an empowering environment conducive to innovation and progress, (2) protecting scientists, and (3) preserving the integrity of the scientific process and the communication of science. Scientific findings and products must not be interfered with, suppressed, unreasonably delayed, or altered for political purposes and must not be subjected to inappropriate influence. Policies and guidance that determine how scientific information is collected, evaluated, or used should be based on peer reviewed information.

Scientific integrity is everyone's responsibility. Both appointed and career EPA leadership at all levels will recognize, support, and promote this policy and its underlying principles, as well as model behavior exemplary of a strong culture of scientific integrity. EPA Assistant, Associate, and Regional Administrators are required to submit a certification of internal controls for scientific integrity as part of their compliance with the Federal Managers Financial Integrity Act (FMFIA).

A strong culture of scientific integrity begins with ensuring a professional environment that is safe, equitable, inclusive, and free from harassment. Issues of diversity, equity, inclusion, and accessibility are integral to the scientific process, including the responsible and ethical conduct of research and other scientific activities.

Successful application of science to inform Agency decisions relies on the integrity of the scientific process both to ensure the validity of scientific information and to engender public trust in the Agency. Thus, it is essential that EPA's decision makers involve scientists on scientific issues and that the scientific information and processes relied upon for decision making manifest scientific integrity.

To enhance our culture of scientific integrity, EPA will post this policy prominently on its website[47] and take other measures such as Agency-wide meetings, trainings, and mass mailers to keep scientific integrity visible at EPA. As part of its mandate, the Scientific Integrity Committee oversees the development and implementation of training related to scientific integrity for all Agency employees and as permitted by law, for other covered entities.

All appointed and career employees and other covered entities will receive scientific integrity training within 6 months of when their work at or with EPA commences to make them aware of their

[44] A Framework for Federal Scientific Integrity Policy and Practice. January 2023. Available at: https://www.whitehouse.gov/wp-content/uploads/2023/01/01-2023-Framework-for-Federal-Scientific-Integrity-Policy-and-Practice.pdf

[45] Cambridge Dictionary

[46] Ibid.

[47] EPA Scientific Integrity Policy. Available here: https://www.epa.gov/scientific-integrity/epas-2023-scientific-integrity-policy

responsibilities under this Scientific Integrity Policy. EPA will also provide biennial training for those who propose, review, conduct, manage, and use the results of and communicate about science and scientific activities. Training will be tracked to ensure completion.

To promote scientific integrity at EPA, this policy details seven specific areas:

1. Protecting Scientific Processes
2. Reviewing Science, Including the Use of Federal Advisory Committees
3. Ensuring the Free Flow of Scientific Information
4. Supporting Decision Making Processes
5. Ensuring Accountability
6. Protections for Employees
7. Professional Development for Government Scientists

1. Protecting Scientific Processes

Scientific integrity is essential for and fosters honest scientific investigation, open discussion, refined understanding, and a firm commitment to evidence. It also requires consideration of differing scientific opinions (DSOs) and their transparent documentation and other well-established processes that ensure scientific integrity. Science, and public trust in science, thrive in an environment that shields data, analysis, scientific or environmental information and their use in decision making from political interference or inappropriate influence.

To protect the integrity of the scientific process, it is the policy of EPA to:

a. Prohibit the interference or inappropriate influence or unreasonable delay by any covered entity such as political appointees and employees and by any external party in the design, proposal, conduct, review, management, evaluation or reporting of scientific activities and the use of scientific information, including directing or suggesting that another covered entity interfere or inappropriately influence or unreasonably delay scientific activities. Violations of this Policy include attempts to purposefully interfere with scientific processes regardless of the outcome of those attempts.
b. Require both appointed and career leadership and management to ensure that employees and other covered entities engaged in scientific activities can conduct their work free from reprisal, or concern for reprisal.
c. Prohibit inappropriate restrictions on resources and capacity that limit and reduce the availability of science and scientific products outside of normal budgetary or priority-setting processes or without scientific justification.
d. Ensure that all conflicts of interest, or the appearance of a conflict of interest with external parties are eliminated when possible and publicly documented when unavoidable. Require that all employees and other covered entities design, conduct, manage, evaluate, and report scientific research and other scientific activities honestly and thoroughly, and disclose any conflicts of interest to their supervisor or other appropriate Agency official(s) for their determination whether a recusal, disclaimer, or other notification would be appropriate.
e. Ensure the independence and objectivity of personnel conducting and managing program evaluation activities. EPA will insulate the implementation of program evaluations, including how program evaluation staff and managers are selected and how they operate, from political and other undue influences that may affect staff/managers' objectivity, impartiality, and professional judgment.

f. Require that all employees and other covered entities represent their contributions to scientific work fairly and accurately and neither accept nor assume unauthorized and/or unwarranted credit for another's accomplishments. To be named as an author, contributors should have made a substantial intellectual contribution, written, or provided editorial revisions that include critical intellectual content, approved the final version, and agreed to be accountable for their contributions to the work.

g. Design and implement scientific products and activities independent of any pre-determined desired outcome. The scope of scientific activities should be appropriate to the hypotheses being tested. Outcomes of the work must be based on evidence and transparently documented inference methods and approaches and not on a pre-determined opinion, decision, or outcome.

h. Require reasonable efforts by all employees and other covered entities to ensure the accuracy of the scientific record, show appropriate diligence toward protecting and conserving records of data, results, and environmental information that are entrusted to them, correct identified inaccuracies that pertain to their contribution to any scientific records, and comply with Agency policies and procedures for planning and conducting scientific activities.

i. Prohibit research misconduct, including fabrication, falsification, or plagiarism in proposing, performing, or reviewing scientific and research activities, or in the publication or reporting of these activities; or ordering, advising, or suggesting that subordinates or other covered entities engage in research misconduct. Research misconduct does not include honest errors or differences of opinion.[48]

j. Require the use of proper and appropriate methods and processes in conducting research and adherence to practices that ensure the quality of research and other scientific activities. Standard Operating Procedures (SOPs) and processes that determine the development or review of scientific products should be adhered to and applied consistently, including EPA's quality directives and standards[49], and all appropriate scientific guidelines.

k. Ensure the independent review of Agency scientific facilities and testing activities, as occurs with accreditation by a nationally or internationally recognized sanctioning body and as called for by Agency policy directives.

l. Ensure the independent validation of scientific and laboratory methods and models and that all novel methods or models are appropriately peer reviewed prior to use. Appropriate instruction on the application of the methods or models and the peer review of these instructions should be developed and finalized before the method or model is used in Agency scientific products or decision making.

m. Ensure the right of last review for scientists for products that significantly rely on that scientist's research, identify them as an author, or represent their scientific opinion. The scientist(s) should be given the option and sufficient time to review the scientific content of the proposed product. In the case of differing scientific opinions, scientist(s) are encouraged to consult the Approaches to Differing Scientific Opinion document[50] and, as needed, their management chain, DSIO, the SIO, or the Chief Scientist.

[48] Federal Policy on Research Misconduct 65 FR 76260-76264. Available at: https://www.federalregister.gov/documents/2000/12/06/00-30852/executive-office-of-the-president-federal-policy-on-research-misconduct-preamble-for-research

[49] Environmental Information Quality Policy, April 10, 2023 Policy Directive No: CIO 2105.2 (July 19, 2022). Available at: https://www.epa.gov/system/files/documents/2023-04/environmental_information_quality_policy.pdf

[50] Approaches for Expressing and Resolving Differing Scientific Opinions. Oct. 8, 2020. EPA. Available at: https://www.epa.gov/system/files/documents/2021-09/epas_approaches_for_expressing_and_resolving_differing_scientific_opinions.pdf

n. Ensure that science-based decisions are informed by best available science. As permitted by law and necessary to ensure all regulatory decisions are fully informed and based on the best available science, EPA should request scientific data and full documentation from registrants, permittees, coregulators or other sources.

o. Ensure that, as appropriate, EPA consults and collaborates with Tribal Nations and Indigenous peoples to include Indigenous Knowledge in decision making. Ensure that Indigenous Knowledge is not obtained and included in Federal decision making without first obtaining consent or communicating Federal abilities and limitations to protect Indigenous Knowledge from disclosure or re-use, when provided to EPA.

p. Require that Dual Use Research of Concern,[51] research involving the participation of human subjects and the use of non-human animals,[52] are conducted in accordance with applicable, established laws and regulations, and ethical considerations.

q. Identify and follow timelines for scientific products and activities in a manner that ensures the accuracy, completeness, and quality of scientific information.

r. Prohibit directing economists, analysts, and other scientists to change the quantification and valuation of benefits and costs based on internal or external policy or political concerns. The Agency's economic analyses, including benefit-cost analyses, are scientific products intended to inform the decision-making process, like risk assessments and other scientific assessments. In an economic analysis, the decision of whether and how to quantify and value the benefits and costs of a policy option are scientific decisions. Further, an economic assessment should not be changed except as needed to correct technical errors in the science or application of science or incorporate scientifically justified information. EPA's *Guidelines for Performing Economic Analyses*[12] provides scientific considerations for assessing benefits, costs, and economic impacts, and should be followed.

s. Ensure that emerging modes of science, such as participatory science and community-engaged research, are transparent about their use of standards of scientific integrity that traditional modes are expected to uphold. Further, scientific integrity practices must be applied in ways that are inclusive of these emerging modes of science.

t. Ensure that artificial intelligence tools are used consistent with Agency and Federal government policy and care should be taken that any future permitted uses are closely monitored to be sure they do not violate this Policy, for example as concerns authorship and attribution.

u. Enhance the security and integrity of the research enterprise and protect against foreign government interference and misappropriation, while maintaining an open environment to foster research discoveries and innovation. Research security policies, such as the National Security Presidential Memorandum 33 (NSPM-33)[53] and subsequent Guidance for Implementing NSPM-

[51] Policy and Procedures for Managing Dual Use Research of Concern, EPA Order 1000.19 (09/14/2016). Available at: https://www.epa.gov/sites/default/files/2017-03/documents/1000_19.pdf

[52] 2017 Human Subjects Rule (Federal Register /Vol. 82, No. 12 /Thursday, January 19, 2017 /Rules and Regulations). Activities Deemed Not to Be Research: Public Health Surveillance and Federal Policy for Protection of Human Research Subjects (the Common Rule) outlined in 45 C.F.R. §§ 46.101-46.124 and the FDA Policy for the Protection of Human Subjects outlined in 21 C.F.R. §§ 50, 56, 312 and 812 and United States Department of Agriculture Animal Welfare Act (AWA) and regulations (AWAR), the Public Health Service Policy on Humane Care and Use of Laboratory Animals (PHS Policy) administered by the National Institutes of Health, Office of Laboratory Animal Welfare and the *Guide for the Care and Use of Laboratory Animals*.

[53] Presidential Memorandum on United States Government-Supported Research and Development National Security Policy. January 14, 2021. Available at: https://trumpwhitehouse.archives.gov/presidential-actions/presidential-memorandum-united-states-government-supported-research-development-national-security-policy/

33[54], provide guidance for guarding against foreign abuses and protecting intellectual property rights by focusing on coordinating appropriate and effective risk management.

2. Reviewing Science, Including the Use of Federal Advisory Committees

Independent review of Agency science is crucial to EPA scientific integrity. To ensure that scientific products undergo appropriate peer review by qualified experts, the EPA relies on its Peer Review Policy[55] and Peer Review Handbook.[56] The Peer Review Handbook describes the range of peer review options, from individual letter reviews from outside experts to large, formal reviews by EPA Federal Advisory Committees (FACs) or the National Academies of Sciences, Engineering, and Medicine.

All reviewers of EPA science should take the mandatory onboarding scientific integrity training if they have not already done so and Designated Federal Officials should provide them with access to this Policy.

a. Peer Review[57]

It is the policy of EPA to:

i. Ensure adherence to applicable Agency peer review policies and procedures, ensuring that the Agency produces scientific products of the highest quality, rigor, and objectivity for use in Agency decisions.

ii. Ensure peer review charge questions address all relevant scientific questions, including those raised in DSOs, and are free from any interference, especially interference that may inappropriately limit the scope of the review.

iii. Ensure the recruitment process for peer reviewers is as transparent as practicable. When peer reviewers are needed and when practicable and appropriate, notice of the need for reviewers should be made widely available, including notification in the Federal Register with an invitation for the public to recommend individuals for consideration and for self -nominations to be submitted.

iv. Ensure the selection of peer reviewers, including internal scientific reviewers, is based on expertise, knowledge, contribution to the relevant subject area, and balance of the scientific or technical points of view represented by the reviewers. External peer reviewers must be evaluated for conflicts of interest and any such conflicts of interest should be transparently addressed to determine whether the conflicts are substantive and warrant preclusion of the reviewer from selection or participation in the review.

v. Make professional biographical information (including current and past professional affiliations) for appointed peer reviewers widely available to the public (e.g., via a website) subject to the Privacy Act of 1974 and other statutory/regulatory considerations. Such information should clearly illustrate the individuals' qualifications for serving.

vi. Ensure all best practices for selecting reviewers and conducting scientific review are followed for contractor-led peer reviews, including review for conflicts of interest and selection based

[54] Guidance for Implementing National Security Presidential Memorandum 33 (NSPM-33) on National Security Strategy for the United States Government-Supported Research and Development. January 2022. Available at: https://www.whitehouse.gov/wp-content/uploads/2022/01/010422-NSPM-33-Implementation-Guidance.pdf

[55] Memorandum on Peer Review and Peer Involvement at EPA. January 31, 2006. EPA. Available at: https://www.epa.gov/sites/default/files/2015-01/documents/peer_review_policy_and_memo.pdf

[56] U.S. Environmental Protection Agency Science and Technology Policy Council Peer Review Handbook 4th Edition (2015). October 2015. EPA. Available at: https://www.epa.gov/osa/peer-review-handbook-4th-edition-2015

[57] Excluding peer review conducted by journals in their consideration of a manuscript for publication.

on expertise and familiarity with the subject matter with as much transparency as is practicable. For technical documents designated as Influential Scientific Information (ISI) or Highly Influential Scientific Assessment (HISA) where independent peer reviews will be conducted by an independent contractor under contract with EPA, the contractor and the EPA contracting officer will adhere to the Conflict of Interest Review Process for Contractor-Managed Peer Reviews.[58]

vii. Ensure EPA decisions are based on or informed by science that has completed independent peer review and has been finalized.

viii. Not substitute expert elicitation and peer consultation for external peer review.

ix. Ensure that Agency managers and other Agency appointed and career leadership not suggest scientifically unjustified changes to scientific content. Their reviews should be focused on scientific quality considerations (e.g., the methods used are clear and appropriate, the presentation of results and conclusions is impartial and does not include proscriptive policy unless the authors are otherwise authorized to include such content).

x. When scientifically justified, allow managers to edit or ask for additional scientific review.

b. Review by EPA Scientific or Technical Federal Advisory Committees

Federal Advisory Committees (FACs) are an important tool for ensuring the credibility, quality, and transparency of Agency science, and enhancing the transparency of the peer review process. In almost all cases, FACs meet and deliberate in public, and materials prepared by or for the FAC are made available to the public. At the EPA, FACs are overseen by the Federal Advisory Committee Management Division (FACMD) with legal support from the Office of General Counsel (OGC). All EPA FACs are expected to comply with the requirements of the Federal Advisory Committee Act (5 USC Chapter 10)[59], the Federal Advisory Committee Management regulations issued by the General Services Administration (41 CFR Part 102-3),[60] EPA's Federal Advisory Committee Handbook,[61] and guidance that lobbyists not serve on FACs.[62]

Agency employees, including Special Government Employees, are to adhere to the current standards governing conflict of interest as defined in statutes and related regulations. The Office of General Counsel's Ethics Office develops standard procedures and ethics training for Special Government Employees (SGEs) who serve on scientific FACs. These procedures include the requirement that SGEs submit, and Deputy Ethics Officials review and certify, Confidential Financial Disclosure reports (EPA Form 3110-48) of SGEs and regular government employees serving on advisory committees, government employees (EPA Form 3110-48 and OGE Form 450, respectively)[63], and complete an online and/or in-person ethics training course.

[58] Conflicts of Interest Review Process for Contractor-Managed Peer Reviews of EPA Highly Influential Scientific Assessment (HISA) and Influential Scientific Information (ISI) Documents. March 21, 2013. EPA. Available at: https://www.epa.gov/osa/conflicts-interest-review-process-contractor-managed-peer-reviews-epa-highly-influential

[59] Federal Advisory Committee Act Title 5 United States Code, Chapter 10 (1972). October 7, 2010. Available at: https://uscode.house.gov/view.xhtml?path=/prelim@title5/part1/chapter10&edition=prelim

[60] Title 41 Code of Federal Regulations, Part 102-3 (2006) Federal Advisory Committee Management. July 19, 2001. Available at: https://www.ecfr.gov/current/title-41/subtitle-C/chapter-102/subchapter-A/part-102-3

[61] EPA Federal Advisory Committee Handbook (August 2021).

[62] The White House, Office of the Press Secretary (2010) Presidential Memorandum – Lobbyists on Agency Boards and Commissions. June 18, 2010. Available at: https://obamawhitehouse.archives.gov/the-press-office/presidential-memorandum-lobbyists-agency-boards-and-commissions

[63] U.S. EPA Ethics Advisory 2022-01A, February 16, 2022. Available at: https://usepa.sharepoint.com/sites/OGC_Work/ethics/Shared%20Documents/EPA%20%20Ethics%20Advisory%202022-01A%20on%20SGEs%20-%20signed%202-16-22.pdf

It is the policy of EPA to:

i. Make the recruitment process for new FAC members as transparent as practicable. EPA will announce FAC member vacancies widely, including notification in the Federal Register, with an invitation for the public to recommend individuals for consideration and for self-nominations to be submitted.[64]
ii. Make professional biographical information (including current and past professional affiliations) for appointed committee members widely available to the public (e.g., via a website) subject to relevant statutory and regulatory considerations. Such information should clearly illustrate the individuals' qualifications for serving on the committee.[65]
iii. Select members to serve on a scientific or technical FAC based on expertise, knowledge, contribution to the relevant subject area, balance of the scientific or technical points of view represented by the members, and the consideration of conflicts of interest. When an EPA scientific or technical FAC conducts a peer review, the Agency should ensure that all necessary scientific viewpoints and expertise are represented.[66]
iv. Ensure the selection process is overseen by career EPA officials.
v. Except when prohibited by law, appoint members of scientific and technical FACs as Special Government Employees and make all conflict of interest waivers granted to committee members publicly available (e.g., via website).[67]
vi. Ensure that members of scientific and technical FACs appointed as Special Government Employees receive training in scientific integrity and on EPA's Scientific Integrity Policy.
vii. Treat all reports, recommendations, and products produced by FACs as solely the findings of such committees rather than of the EPA, and thus not subject them to intra- or inter-agency revision except when explicitly stated in a prior agreement between EPA and a FAC.[68]
viii. Ensure FAC charge questions address all relevant scientific questions, including those raised in DSOs, and are free from any interference, especially interference that may inappropriately limit the scope of the review.

c. Other Scientific Review

The Agency conducts research, and its products are subject to other kinds of scientific review. It is the policy of EPA to:

i. Ensure that comments received on draft scientific documents during any interagency review are made in writing and made public.
ii. Ensure career EPA employees make the final determination concerning changes or suggested changes to scientific documents or other scientific products in response to external (including interagency) comments.

[64] Presidential Memorandum for the Heads of Executive Departments and Agencies on Scientific Integrity. December 17, 2010. Office of Science and Technology Policy. Available at: https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/scientific-integrity-memo-12172010.pdf
[65] Ibid.
[66] Ibid.
[67] Ibid.
[68] Ibid.

iii. Ensure offices and regions are consulted early on cross-agency products and given sufficient time to provide appropriate review. When there are differences of scientific opinion, DSO approaches[69] should be undertaken and completed.

3. Ensuring the Free Flow of Scientific Information

Scientific research and analysis comprise the foundation of many EPA policy decisions. Therefore, the Agency should vigilantly ensure that scientific research and results are presented openly and with integrity, accuracy, and timeliness when developing high-quality science. This policy outlines the Agency's expectations for developing and communicating scientific information to the public, to the scientific community, to Congress, and to the news media by further providing for and protecting the EPA's longstanding commitment to the timely dissemination of its scientific information — uncompromised by political interference or inappropriate influence. This policy recognizes the importance of, and the need to foster, a culture of openness regarding the results of research, scientific activities, evaluation, and technical findings. To that end, the EPA strongly encourages and supports transparency and active, open communications through various forms including, but not limited to, publication in peer-reviewed or refereed journals, conference papers and presentations, media interviews, responses to Congressional inquiries, Web postings, and news releases. EPA makes its reports, data, tools, and models and associated code publicly available, to allow the public to reproduce EPA scientific results, and to use publicly available tools and models. Scientific and technological information produced by or funded by EPA will be disseminated to the extent allowed by and consistent with privacy and classification standards, government policies, and responsible communication of scientific information.

It is the policy of EPA to:

a. Facilitate the free flow of scientific and technological information, consistent with privacy and classification standards. Consistent with Open Government requirements, EPA promotes access to scientific and technological information produced by or funded by the EPA by making it available freely to the public in an online digital format as described in OSTP's 2022 memo *Ensuring Free, Immediate, and Equitable Access to Federally Funded Research*[70], OSTP's 2013 memo on public access[71], and EPA's 2016 *Plan to Increase Access to Results of EPA-funded Scientific Research*[72].
b. Ensure that scientific findings and products are not suppressed, unreasonably delayed, or altered for non-scientific reasons or due to political interference or inappropriate influence. This includes scientific findings and products generated by contractors, grantees, or other Agency partners who assist with developing or applying the results of scientific activities.
c. Ensure that mechanisms are in place to resolve disputes that may arise related to releases of scientific and technological information.

[69] Approaches for Expressing and Resolving Differing Scientific Opinions. Oct. 8, 2020. EPA. Available at: https://www.epa.gov/system/files/documents/2021-09/epas_approaches_for_expressing_and_resolving_differing_scientific_opinions.pdf

[70] Memorandum for the Heads of Executive Departments and Agencies; Ensuring Free, Immediate, and Equitable Access to Federally Funded Research. OSTP. August 2022. Available at: https://www.whitehouse.gov/wp-content/uploads/2022/08/08-2022-OSTP-Public-Access-Memo.pdf

[71] OSTP Memo on Public Access. 2013. Available at: https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/ostp_public_access_memo_2013.pdf

[72] Plan to Increase Access to Results of EPA-funded Scientific Research. Available at: https://www.epa.gov/sites/default/files/2016-12/documents/epascientificresearchtransperancyplan.pdf

d. Ensure covered entities are aware of the Agency's Elevation Policy and associated web tool for providing Agency senior management with notice of a perceived unaddressed significant risk to public health or the environment that is within the scope of the EPA's authorities.[73]
e. Support, but not require, Agency employees to participate in communications with the media regarding their scientific activities and areas of scientific expertise in their official capacities at EPA. Agency employees will notify their supervisors or other appropriate officials after responding to media inquiries in their official capacity. When speaking or writing on behalf of EPA, scientists will refrain from making or publishing statements that could be construed as being judgments of, or recommendations on, EPA or any other Federal Government policy, unless they have secured appropriate prior approval to do so. When acting in their official capacity, such communications should remain within the bounds of their scientific or technological findings, unless specifically otherwise authorized.
f. During outreach activities and media interactions, adhere to Agency ethics regulations and clearance procedures associated with ensuring accuracy and disseminating scientific information and scientific assessments. Scientists and managers are also expected to 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. In communicating with the media, scientists should take advantage of advice or assistance from EPA-trained career communications experts.
g. As resources allow, offer communication and media training to Agency employees to expand their ability to clearly communicate their scientific findings and understand their role in communicating.
h. Ensure that the work and conclusions of work funded/supported by the Federal government are accurately represented in Agency communications.
i. Ensure that Agency employees may communicate their scientific activities objectively without political interference or inappropriate influence. Scientific products (e.g., manuscripts for scientific journals, presentations for workshops, conferences, and symposia) should adhere to Agency clearance and peer review procedures.
j. Allow EPA employees to review, correct, and approve the scientific content of any proposed Agency document intended for public dissemination that significantly relies on their research or analysis, or identifies them as an author.
k. Ensure that disputes associated with the dissemination plan for a scientific product will be resolved first by the employees' direct supervisors, and if necessary, the SIO or DSIO.
l. Allow employees a Personal Views Exception, which means they are allowed to communicate with the media or the public in their personal capacities subject to the applicable federal ethics rules including misuse of position[74]. Employees are obliged to abide by the applicable ethics regulations. For example, if writing or speaking in a personal capacity on topics that relate to official duty, then employees may not necessarily be able to refer solely to their EPA positions and titles and may need to include a disclaimer that meets the requirements of EPA Ethics. Employees are encouraged to consult with an Agency ethics official in advance.
m. Require that covered entities, including public affairs officers, not alter nor direct that Agency experts alter their scientific or technological findings or the presentation of those findings in a

[73] EPA's Elevation Policy. Available at: https://www.epa.gov/aboutepa/reaffirming-epas-elevation-policy-december-28-2022
[74] Federal ethics rules at 5 C.F.R. Part 2635, EPA Supplemental Ethics Regulations at 5 C.F.R. Part 6401, the representational conflict of interest laws at 18 U.S.C. §§ 203, and Federal ethics rules at 5 C.F.R. Part 2635.

manner that may compromise the objectivity or accurate representation of the scientific information.

n. Make every effort to provide knowledgeable scientists as spokespersons in response to media requests about the scientific or technological aspects of EPA's work. This does not include describing the policy implications of such work. Public and media questions about any policy implications raised by scientific studies should be addressed by designated Agency officials responsible for conveying information about EPA policy matters, such as program policy experts or designated spokespersons.

o. Ensure that responses to Congressional inquiries, official testimony, and other requests that include scientific information accurately represent the science. If testifying before Congress in their official capacity (i.e., on behalf of the EPA), Agency experts should communicate on matters associated with their work or area(s) of expertise in an accurate and clearly understandable manner. Whenever possible, scientists should be permitted to testify on their scientific results.

p. Ensure that Office of Congressional and Intergovernmental Relations (OCIR) staff members coordinate with Agency scientists and managers to ensure that Congressional inquiries regarding EPA science receive accurate and responsive answers.

q. Accurately represent the work and conclusions of Agency employees in official Agency social media communications. When communicating on social media in their personal capacities, EPA scientists may express their personal views and opinions provided they do so pursuant to the applicable Federal ethics rules.[75] If employees disclose their EPA employment on their personal social media, a disclaimer clarifying that the account or communication represents personal views should be included.[76]

r. Ensure that social media managers correct any errors identified by scientists whose work is represented in EPA social media.

s. Require open and honest communication at all levels, including opportunities for staff to contact senior leaders regarding scientific issues without fear of retaliation, retribution or reprisal and encourage they report retribution, retaliation, or reprisal to the OIG or Office of the Special Counsel.

t. Allow EPA scientists to respond to internal or external scientific criticisms of EPA scientific products, findings, or conclusions that they were significantly involved in developing.

u. Require that technical review and clearance processes include provisions for timely clearance and expressly forbid unreasonable delay and suppression of scientific products without scientific justification. Authors are responsible for completion of manuscripts and other products subject to clearance to allow time for the clearance process. Clearance should generally not result in missing media and other publication deadlines or the removal of EPA scientists from joint publications with external co-authors.

v. Ensure the Office of Public Affairs closely coordinates with involved Agency scientists to ensure the accuracy of any Agency scientific information to be issued by the EPA in science-based communications including during a nationally significant incident or environmental crisis.

[75] Standards of Ethical Conduct for Employees of the Executive Branch, 5 C.F.R. Part 2635.

[76] Ethics Disclaimers chart or consult with your agency ethics official or EPA Ethics (ethics@EPA.gov).

4. Supporting Decision Making Processes

The science that informs EPA decisions must be derived from appropriate and accepted practices and procedures that ensure its credibility, accuracy, utility, rigor, independence and objectivity, transparency, ethics, and equity, as addressed by EPA's "Policy for Evaluations and Other Evidence-Building Activities".[77] Scientific integrity requires the distinction between scientific information, analyses, and results, and the policy decisions informed by that science. As allowed by law, policy makers within the Agency may weigh the science along with additional factors such as practicality, statutory authority, and societal impact such as distributional impacts, and environmental justice when making decisions that utilize that science.

It is the policy of EPA to:

a. Ensure the quality, accuracy, and transparency of scientific information used to support policy and decision making including:
    i. Using scientific information that is subject to well-established scientific processes.
    ii. Ensuring that science-based decisions are informed by the best available science. As permitted by law and necessary to ensure all regulatory decisions are fully informed and based on the best available science, EPA should request scientific data from registrants, permittees or coregulators.
    iii. Ensuring the accuracy of the communication of the science upon which a policy decision is based.
b. Prohibit decision makers from knowingly misrepresenting, exaggerating, or downplaying areas of scientific uncertainty in both scientific and policy documents and policy decisions.
c. Ensure that scientific data, environmental information, and research used to support policy decisions undergo review by qualified experts, where feasible and appropriate, and consistent with law.
d. Ensure that draft documents released as part of transparency efforts are not relied upon for decision making. These documents are not considered disseminated. Reflect scientific information appropriately and accurately and ensure that it is free of misinformation; and make scientific work, findings or conclusions considered or relied on in policy decisions publicly available online and in open formats, to the extent practicable and consistent with law.
e. Use transparent criteria in instances where a statute gives the Agency discretion in weighing scientific information in its actions and make the criteria publicly available.
f. Use the Action Development Process (ADP)[78] for regulatory Agency actions that are informed by science and provide a publicly available justification when the ADP is not used.
g. Participating members and scientists in a regulatory workgroup should be cognizant of potential scientific integrity issues and seek to review and resolve any as early as possible within the ADP process or elevate them to their DSIO or the SIO.
h. Ensure that employees from relevant offices and regions on ADP workgroups for actions that are informed by science have the appropriate scientific expertise. Scientific perspectives of internal stakeholder offices should be considered in decisions informed by science.

[77] U.S. Environmental Protection Agency Policy for Evaluations and Other Evidence-Building Activities, Order 1000.33 (03/25/2022). Available at: https://www.epa.gov/system/files/documents/2022-05/epa-evaluation-evidence-building-policy.pdf

[78] EPA's Action Development Process. Guidance for EPA Staff on Developing Quality Actions. March 2011. EPA. Available at: https://nepis.epa.gov/Exe/ZyPURL.cgi?Dockey=940066AZ.txt

i. Recognize the expression of differing scientific opinions as a legitimate and necessary part of the scientific process and include differing scientific opinions, and when resolved, a description of the resolution, in draft materials during both policy and scientific decision-making processes where appropriate and allowable by law. When an Agency employee who is substantively engaged in a scientific project disagrees with the scientific data, environmental information, interpretations, or conclusions that are part of that project or that may be relied upon for any decision making, the employee is encouraged to express that opinion complete with rationale and in writing. "Substantively engaged in the science" refers to having contributed scientific expertise in an official capacity as a co-author or subject matter expert in the development of a scientific product, beyond presence at meetings or on mailing lists. EPA has developed *Approaches for Expressing and Resolving Differing Scientific Opinions*[79] to assist scientists with this process. If DSOs are not resolved during internal deliberations, they can be part of peer review charge questions with the results publicly available. When there is no peer review, the differing scientific opinion will be represented in the Agency draft and in deliberative documents for the decision maker's consideration.

j. Where legally permissible and appropriate and without recommending a specific Agency action, allow authors of scientific products to include a comprehensive listing of relevant policy possibilities. It is also appropriate to have descriptive policy content that describes the historical and current context for scientific content, as part of explaining the motivation for the work and the rationale for selection of hypotheses.

k. Where legally permissible and appropriate, enable scientists to directly participate in policy and management discussions that inform decisions where their science is being used to ensure that the science is accurately represented and interpreted.

5. Ensuring Accountability

Safeguarding scientific integrity includes procedures to encourage reporting of concerns and potential violations; addressing concerns; and when concerns or alleged violations are found to be valid, restoring scientific integrity, correcting the scientific record, and making recommendations for preventing potential future violations, regardless of whether the violation of scientific integrity was willful, intentional or inadvertent. Substantiated violations are communicated to management for their imposition of specific and appropriate consequences. Violations of scientific integrity policies should be taken as seriously as violations of government ethics rules and should lead to appropriate consequences.

It is the policy of EPA to:

a. Ensure the establishment of clear administrative actions for violations of this policy that designate responsibility for each aspect of accountability. Actions may be substantiated by administrative processes carried out by different parts of the Agency such as the management of the relevant office or region, the Scientific Integrity Program, the OIG, and the Office of Human Resources.

b. Mandate that both career and appointed supervisors, managers, and senior leaders exemplify firm commitment to scientific integrity and hold staff accountable for upholding this policy.

c. Mandate that the SIO, together with the Scientific Integrity Committee, draft procedures such that when responding to allegations of compromised scientific integrity, the response is done in

[79] Approaches for Expressing and Resolving Differing Scientific Opinions. Oct. 8, 2020. EPA. Available at: https://www.epa.gov/system/files/documents/2021-09/epas_approaches_for_expressing_and_resolving_differing_scientific_opinions.pdf

a timely, objective, and thorough manner. These procedures should include the following steps: an initial assessment and review, a fact-finding process, an Agency adjudication or determination including description of remedies and preventative measures to safeguard the science, an appeals process, follow-up to track implementation of remedies, and reporting. These procedures should document the necessary aspects for each step of the process including burden of proof, any necessary determination of intentionality, and reporting, as well as the roles of the SIO, DSIOs and Agency managers and staff.

d. Encourage and facilitate early informal or formal consultation with the SIO or any DSIO to seek advice on preventing a situation of concern, to determine if it is a potential violation of the Scientific Integrity Policy, and to ascertain if it should be referred to the OIG or elsewhere in the Agency for resolution. Early consultations are not considered allegations of a violation of the Scientific Integrity Policy.
e. Ensure that scientific integrity policy violations are promptly addressed with an emphasis on how to prevent them in the future.
f. To the extent possible, and as allowed by law, keep confidential the identities of submitters, subjects, witnesses, and experts interviewed by the Scientific Integrity Program as part of an initial assessment, fact-finding, or investigation.
g. Expect all parties to cooperate with the Scientific Integrity Program during the assessment, fact-finding, or investigation of scientific integrity concerns.
h. Ensure correction of the scientific record when inaccuracies or deficiencies are identified or an allegation of a loss of scientific integrity is substantiated.
i. Provide clear guidance on how to formally report concerns and allegations of Scientific Integrity Policy violations. Those who report concerns and allegations need not be directly involved or witness a violation.
j. Allow EPA offices and regions to enact stronger Scientific Integrity policies and procedures than are detailed in this Policy. These policies and procedures may not be less stringent than this Policy.
k. Allow EPA scientists to speak with OIG, Government Accountability Office, or other appropriate investigative bodies privately regarding scientific issues.

6. Protections for Employees

The Whistleblower Protection Act of 1989 and the Whistleblower Protection Enhancement Act of 2012 protect government employees who make covered disclosures from retaliation. The Agency encourages the discussion and resolution of differing scientific opinions as outlined in the *Approaches for Expressing and Resolving Differing Scientific Opinions* document. EPA employees are not required to follow that document to receive these protections. Not all differing scientific opinions or reports of allegations are covered disclosures. In 2002, the U.S. Congress passed the Notification and Federal Employee Antidiscrimination and Retaliation Act ("No FEAR Act")[80] to promote a federal work environment that is free of discrimination and retaliation. All Agency employees should be familiar with these protections and avoid the taking or the appearance of taking retaliatory actions.

It is the policy of EPA to:

a. Prohibit managers and other Agency appointed and career leadership from intimidating or coercing scientists to alter scientific activities, scientific products scientific data, scientific and

[80] H.R. 169 Notification and Federal Employee Antidiscrimination and Retaliation Act of 2002. May 15, 2002. Available at: https://www.congress.gov/bill/107th-congress/house-bill/169/text

environmental information, findings, or scientific opinions or inappropriately influencing scientific advisory boards.

b. Require that both appointed and career leadership and management ensure that employees and other covered entities engaged in scientific activities can conduct their work free from reprisal or concern for reprisal. Likewise, ensure that scientists and other technical experts engaged in field and response technical work are not removed, reassigned, or otherwise excluded from their appointed duties and activities, solely for the purpose of suppressing the accurate and complete communication of collected data, environmental assessments, critical reviews, or action plans arising from those activities.

c. Protect individuals who in good faith report allegations of potential losses of scientific integrity or raise a differing scientific opinion, and those Agency employees and other covered entities alleged to have compromised scientific integrity from retribution, retaliation, and reprisal and other prohibited personnel practices (as defined in 5 U.S.C. § 2302(b)).

d. Prohibit the inclusion of good faith employee expression of DSOs as negative behavior in performance appraisals.

e. Comply with whistleblower protections, specifically by enforcing the requirements of the Whistleblower Protection Act of 1989[81], 5 U.S.C. § 2302(b)(8)-(9), Pub. L. 101-12 as amended and the Whistleblower Protection Enhancement Act of 2012[82], Pub. L. 115-73, Kirkpatrick Whistleblower Protection Act of 2017.

   i. By recognizing the expansion of certain whistleblower protections to employees of Federal government contractors, subcontractors, and grant recipients. 41 U.S.C. § 4712; and

   ii. By adhering to Presidential Policy Directive 19[83], which includes a prohibition of taking, failing to take, or threatening to take or fail to take any action affecting an employee's eligibility for access to classified information in reprisal for making a protected disclosure.

f. Encourage that all allegations of retaliation, retribution or reprisal, whether experienced or observed, be promptly reported to EPA Labor and Employee Relations, the EPA OIG Hotline or the United States Office of Special Counsel[84]. Employees may also report these concerns to their unions or Congress[85].

g. Select and retain candidates for scientific and technical positions based on the candidate's scientific and technical knowledge, credentials, experience, and integrity, and hold them and their supervisors to the highest standard of professional and scientific ethics.

h. Promote diversity, equity, inclusion, and accessibility in the scientific workforce and work to create safe workspaces that are free from harassment and discrimination[86, 87].

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[81] S.20 Whistleblower Protection Act of 1989. April 10, 1989. Available at: https://www.congress.gov/bill/101st-congress/senate-bill/20/text

[82] Whistleblower Protection Enhancement Act of 2012. November 27, 2012. Available at: https://www.congress.gov/bill/112th-congress/senate-bill/743/text

[83] Presidential Policy Directive 19. October 10, 2012. Available at: https://www.va.gov/about_va/docs/president-policy-directive-ppd-19.pdf

[84] EPA OIG Hotline information available at: https://www.epa.gov/office-inspector-general/epa-oig-hotline-information#:~:text=OIG%20Hotline%3A%201%2D888%2D546%2D8740. Office of the Special Council. Available at: https://osc.gov/Agency

[85] The Notification and Federal Employee Antidiscrimination and Retaliation Act of 2002 (No-FEAR Act) Pub. L. 107-174.

[86] Procedure for Addressing Allegations of Workplace Harassment EPA Order 4711. November 20, 2015. Available at: https://www.epa.gov/sites/default/files/2016-01/documents/epa_order_4711_workplace_harassment_final.pdf

[87] Executive Order on Diversity, Equity, Inclusion, and Accessibility in the Federal Workforce. June 25, 2021. Available at: https://www.whitehouse.gov/briefing-room/presidential-actions/2021/06/25/executive-order-on-diversity-equity-inclusion-and-accessibility-in-the-federal-workforce/

7. Professional Development for Government Scientists

The Agency encourages its scientists and other employees and covered entities involved in Agency scientific activities to interact with the broader scientific community in a manner that is consistent with federal law, rules of ethics, job responsibilities, and to the extent that is practicable given the availability of funding to support such interactions and agency priorities.

It is the policy of EPA to:

a. Encourage timely publication of research findings such as in peer-reviewed, professional, scholarly journals, EPA technical reports, and publications or other appropriate outlets.
b. Encourage the sharing of scientific activities, findings, and materials through appropriate avenues including digital repositories.
c. Encourage attendance and presentation of research at professional meetings including but not limited to workshops, conferences, and symposia.
d. Encourage service on editorial boards, as peer reviewers, or as editors of professional or scholarly journals in personal capacity consistent with federal ethics rules[88] and EPA supplemental ethics regulations.[89]
e. Encourage participation in professional societies, committees, task forces, and other specialized bodies of professional societies in official or personal capacity, to the extent allowed by the representational conflict of interest laws[90] and federal ethics regulations[91].
f. Encourage government scientists to receive honors, awards, and rewards for patentable inventions, contributions to scientific activities and discoveries, and to accrue the professional recognition of such honors or awards.
g. Permit scientists to perform outreach and engagement activities, such as speaking to community and student groups, as part of their official duties.
h. Encourage and enable Agency scientists to obtain training to keep their scientific qualifications and professional certifications current.

IX. Scientific Integrity Committee

EPA has established a Scientific Integrity Committee, which comprises senior Agency career employees designated as DSIOs for their office or region, and is chaired by the SIO. The Scientific Integrity Committee will provide oversight for the implementation of the Scientific Integrity Policy at EPA, act as liaisons for their respective Agency units, assist with training and policy assessment, updates and amendments, and be available to address any questions or concerns regarding this policy. The SIO together with the Committee has drafted a Scientific Integrity Committee Charter[92] outlining criteria for selection as a member, duties of members, and the frequency of meetings. The Charter may be amended by the SI Committee and will be reviewed every three years.

[88] Federal ethics rules at 5 C.F.R. Part 2635.
[89] EPA Supplemental Ethics Regulations at 5 C.F.R. Part 6401.
[90] The representational conflict of interest laws at 18 U.S.C. §§ 203.
[91] Federal ethics rules at 5 C.F.R. Part 2635.
[92] U.S. Environmental Protection Agency Scientific Integrity Charter. March 2020. EPA. Available at: https://www.epa.gov/sites/default/files/2020-03/documents/scic_charter_final_march2020.pdf

X. Procedures

The SIO, in conjunction with the Scientific Integrity Committee, will expeditiously draft and prominently post on EPA's website necessary procedures including those on addressing scientific integrity concerns, addressing DSOs, and others such as clearance of scientific products, scientific communications, authorship and attribution, and other topics as needed.

XI. Roles and Responsibilities

While scientific integrity is everyone's responsibility, the following individuals have specific scientific integrity roles and responsibilities:

1. **EPA Administrator and Deputy Administrator**
   a. Provide leadership for EPA on scientific integrity such as leading through example, upholding scientific integrity, and regularly communicating the importance of scientific integrity.
   b. Ensure that all Agency activities associated with scientific and technological processes are conducted in accordance with the policy.
   c. Ensure all supervisors and managers comply with the scientific integrity policy and ensure accountability for those who do not.
   d. Provide adequate resources and funding to implement this policy including staffing, annual evaluation and reporting, and training.
   e. Regularly communicate with and consult the SIO and support, respect, and ensure the implementation of their recommendations and designation of, and Agency compliance with, corrective scientific actions.
   f. Ensure the Agency takes as necessary, clear administrative actions for substantiated violations of scientific integrity policies, designating responsibility for each aspect of accountability.
   g. Regularly communicate the importance of scientific integrity to the Agency, including an annual mass mailer.

2. **EPA Science Advisor**
   a. Is the Assistant Administrator for the Office of Research and Development and serves as the principal advisor to the EPA Administrator and both appointed and career senior leadership on scientific issues, and ensures that the Agency's research programs are scientifically and technologically well-founded and conducted with integrity.
   b. Is aware of and upholds the principles contained in this policy and the Code of Scientific Conduct (when released). Attends and actively participates in all required training.
   c. Provides strategic science direction with focus on Administration priorities.
   d. Provides Agency science viewpoint when participating in meetings with the Administrator and external organizations.
   e. Regularly communicates with and consults the SIO; supports, respects, and safeguards their recommendations; and ensures Agency compliance with corrective scientific actions.

3. **EPA Chief Scientist**
   a. Is the Principle Deputy Assistant Administrator for the Office of Research and Development and a designated, full-time equivalent, career employee who holds a permanent tenured appointment and has EPA-appropriate scientific credentials such that this official may provide the Agency with the needed technical expertise across the widest possible variety of contexts; and is appointed at

a senior level, for example as an ST (scientific or professional), Senior Leader (SL), or a Senior Executive Service (SES) member.

b. In cooperation with the SIO and Scientific Integrity Committee, oversees the implementation and iterative improvement of policies and processes affecting the integrity of science funded, conducted, communicated, managed, or used by the Agency, as well as policies affecting Federal and non-Federal scientists who support the scientific activities of the Agency, including policies related to scientific integrity.

c. Is aware of and upholds the principles contained in this policy and the Code of Scientific Conduct (when released). Attends and actively participates in all required training.

d. Ensures Agency compliance with corrective scientific actions when violations of this policy are substantiated, and along with administrative actions for substantiated violations of scientific integrity policies, designates responsibility for each aspect of accountability. May seek assistance from the National Science and Technology Council Subcommittee on Scientific Integrity in cases of disagreement.

e. Provides science oversight and management of the Science and Technology Policy Council (STPC), including ensuring the consistency of their actions with this Policy.

4. **Scientific Integrity Official (SIO)**

a. Is a designated, full-time equivalent, career employee who holds a permanent tenured appointment, has Agency-appropriate scientific credentials and is appointed at a senior level, for example as an ST (scientific or professional) or Senior Leader (SL). Oversees implementation and iterative improvement of scientific integrity policies and processes providing leadership, acting to champion scientific integrity, and serving as the primary Agency-level contact for questions regarding scientific integrity. Ensures that scientific integrity activities and outcomes are appropriately monitored and evaluated.

b. Leads training and outreach initiatives to facilitate employee awareness and understanding of this Policy.

c. Chairs the EPA Scientific Integrity Committee and leads their regular meetings.

d. Serves as a neutral point of contact for receiving scientific integrity questions and concerns and allegations of compromised scientific integrity.

e. Provides independent oversight of Agency responses to allegations of compromised scientific integrity referred for an inquiry or investigation, including:

   i. Reviewing Agency-submitted reports of allegations and their disposition.

   ii. Conducting initial assessments of allegations and submitted materials.

   iii. Following established procedure to make determinations.

   iv. Maintaining a status report of responses to allegations as a means of monitoring the progress toward resolution.

f. Reports to the Chief Scientist on matters involving scientific integrity.

g. Coordinates with the Office of the General Counsel (OGC), OIG, the EPA Ethics Office, the Office of Human Resources, the OPA, and other offices, as needed.

h. Reports to the OIG any potentially criminal behavior, immediate and significant risk to public health or safety, immediate or significant threats to Agency resources or interests, retaliation, retribution, or reprisal against employees, fraud, waste, and abuse in EPA programs, circumstances where action is required to safeguard evidence or protect the rights of whistleblowers, and misconduct in research procured through EPA contracts or assistance agreements that is uncovered while responding to an allegation of a loss of scientific integrity; and coordinates as appropriate regarding the OIG referral.

i. Keeps the EPA Administrator, Deputy Administrator, EPA Science Advisor and Chief Scientist informed on the status of the implementation of this Policy and any compliance concerns.
j. Delegates responsibilities to DSIOs, as appropriate.
k. Releases a publicly available annual scientific integrity report in conjunction with the Scientific Integrity Committee, as described below.
l. Leads efforts to update this policy and any accompanying policies, procedures and practices, and leads efforts for the iterative improvement of this policy and scientific integrity initiatives overall, including development and implementation of an evaluation plan to regularly monitor and evaluate ongoing scientific integrity activities and outcomes.
m. To the extent possible, is involved in high level discussions and strategic planning on the processes for recruitment, retention, development, and advancement of scientists to help ensure that scientific integrity is appropriately and carefully considered.
n. Oversees appropriate administrative records when addressing allegations.
o. Ensures that the scientific integrity policy considers, supplements, and supports Agency plans for forming evidence-based policies, including the evidence-building plans required by 5 U.S.C. 312(a) and the annual evaluation plans required by 5 U.S.C. 312(b). The SIO will coordinate with EPA's Evaluation Officer, Chief Data Officer, and Statistical Official to ensure effective and consistent implementation of the Scientific Integrity Policy and Policy for Evaluations and Other Evidence-Building Activities.

5. Deputy Scientific Integrity Official (DSIO)

a. Annually certifies compliance at the office/region level with the Scientific Integrity Policy. Provides, through the annual Federal Managers Financial Integrity Act process, descriptions of their office's or region's efforts to ensure scientific integrity. This annual reporting will include scientific integrity successes, as well as identifying areas for improvement.
b. Serves as needed on review panels to evaluate allegations of a loss of scientific integrity.
c. Convenes and leads meetings within their respective units to update and inform colleagues on the status of scientific integrity at EPA, as well as their office or region.
d. Prepares for and attends Scientific Integrity Committee meetings including providing comments on scientific integrity documents as needed.
e. Encourages and ensures appropriate training within their office or region.
f. Notifies the SIO ahead of discussions or decisions if a potential or actual conflict of interest exists between their interests and the Scientific Integrity Committee's commitments or obligations, such as may arise in the SI Committee or a review panel's discussion of an allegation or other matter.
g. Communicates any concerns or allegations of a loss of scientific integrity received from their office or region, or from other sources to the SIO.
h. As appropriate, oversees implementation and iterative improvement of scientific integrity policies and processes.
i. Is available to address any questions or concerns regarding scientific integrity and this policy.
j. Assists the SIO or Chief Scientist as needed and agreed to.

6. Scientific Integrity Committee

a. Provides leadership for the Agency on Scientific Integrity.
b. Implements this policy across the Agency in a consistent manner.
c. Promotes Agency compliance with this policy, including creating mechanisms to ensure accountability for safeguarding against political interference or inappropriate influence by managers and other Agency appointed and career leadership.

d. Addresses Scientific Integrity Policy concerns, updates, and amendments and offers suggestions for implementation improvements.
e. Provides an annual meeting and annual report on scientific integrity implementation.
f. Keeps the Agency's senior appointed and career leadership informed on and involved with the Agency-wide status of scientific integrity, as necessary and appropriate.
g. Develops Agency-wide best practices for the approval of scientific products and communications for use by each office and region to develop and document consistent, transparent, and predictable procedures for clearance with the goal of standard practices across the Agency.
h. Oversees the development and implementation of training related to scientific integrity for all Agency employees.
i. Ensures offices and regions' participation in Agency scientific integrity surveys and other evaluation and assessment of EPA scientific integrity.

7. EPA Public Affairs Officials

a. With input from program managers, designate knowledgeable and articulate scientific spokespersons from offices or regions to coordinate with EPA scientists and managers for the purpose of ensuring that Agency research is clearly, accurately, and accessibly presented, in a timely manner, thereby best serving the needs of both the media and the public.
b. Are aware of and uphold the principles contained in this policy. Attend and actively participate in all required training.
c. Alert and coordinate with involved scientists and managers when they receive media inquiries about their research or other scientific activities.
d. Ensure that the science is plainly and clearly communicated for the intended audience in a timely fashion. Under no circumstances should the Public Affairs staff attempt to alter or change scientific information, findings, or results.
e. May, but are not required to, attend interviews of scientists with members of the media, to ensure that the Agency is being fully responsive to media questions in a timely manner and to ensure responsiveness, consistency, and accuracy both on the part of the interviewer and when responding to future information requests.

8. Managers and Supervisors

a. Comply with and ensure Agency and employee compliance with the scientific integrity policy.
b. Listen to and advise employees and other covered entities about allegations of compromised scientific integrity and take action as appropriate when allegations are substantiated.
c. Are aware of and uphold the principles contained in this policy and the Code of Scientific Conduct (when released). Attend and actively participate in all required training.
d. Lead through example by upholding scientific integrity principles and communicating the importance of doing so.
e. Report any knowledge of potential losses of scientific integrity to the SIO or any Deputy SIO.
f. Refrain from committing prohibited personnel practices (as defined in 5 U.S.C. 2302(b)) against all employees including those Agency employees and other covered entities who uncover and report allegations of compromised scientific integrity in good faith, as well as those Agency employees alleged to have compromised scientific integrity.
g. Consult, as appropriate depending upon the nature of the allegation or assistance needed, with the SIO, human resources officer, OIG, OGC, Office of Environmental Justice and Civil Rights, contracting and grant personnel, and ethics officials.

9. **Employees and other covered entities**
    a. Are aware of the principles contained in this policy and how the policy applies to their duties. Attend and actively participate in all required training.
    b. Are aware of and abide by the Code of Scientific Conduct when released and adhere to accepted professional values and practices of the relevant research/scientific communities to ensure scientific integrity.
    c. Report to the SIO or any DSIO any knowledge of and/or allegations of compromised scientific integrity.
    d. Participate as needed and appropriate in any investigation of alleged Scientific Integrity Policy violations.
    e. Cooperate with any scientific integrity inquiry or investigation.

XII. Monitoring and Evaluating Scientific Integrity Activities and Outcomes

EPA will develop and implement an evaluation plan to regularly measure, monitor, and evaluate ongoing scientific integrity activities and outcomes. The plan will include a roadmap of activities and expected outcomes, the steps needed to assess them, the methods and metrics used in that assessment, and how the data will be analyzed on a regular basis and used for ongoing improvement of scientific integrity processes, procedures, and policies. The plan will include a timeline for implementation and frequency of data collection, analysis, review, recommendations, and implementing these recommendations. Monitoring and evaluation results, recommendations, and policy/procedure changes based on results will be reported to Agency leadership and will be made available to Agency staff and the public in a timely manner.[93]

XII. Annual Review, Annual Reporting, and Annual Meeting

Annual Review and Certification

DSIOs will conduct an annual review of scientific integrity in their respective Office or Region. Certification of their respective Office or Region's compliance with the Scientific Integrity Policy, and a summary of accomplishments and challenges, are to be included in this review. The Agency will utilize its Federal Managers Financial Integrity Act (FMFIA) Management Integrity Program to collect these certifications and annual reviews.

Annual Report

The SIO, with input from the Scientific Integrity Committee, will generate and release an annual report on the status of scientific integrity at EPA, making it prominently available on the Agency's public facing website, and delivering it to the EPA Chief Scientist, EPA Science Advisor, Administrator, Deputy Administrator, and other leadership. The report will highlight scientific integrity successes and accomplishments across EPA, such as any new scientific integrity hires, training, and changes to scientific integrity practices and policies. It will identify areas for improvement and weaknesses and include a plan for addressing critical weaknesses, if any are identified. It will report on progress toward achieving the critical criteria and metrics in the Framework for Federal Scientific Policy and Practice, including comparisons to the same metrics from prior years to show trends over time. It will also include the number of scientific integrity administrative investigations overseen by the SIO or Deputy SIO, requests for assistance, inquiries and appeals involving alleged or actual deviations from the scientific integrity policy,

[93] M-20-12 — OMB Phase 4 Implementation of the Foundations for Evidence-Based Policymaking Act of 2018: Program Evaluation Standards and Practices.

and the number of investigations and pending appeals that were completed that year and any that are ongoing. Annual reporting will also include anonymized individual closed scientific integrity allegation summaries. These summaries may be posted in a timely manner after completion of inquiries and/or incorporated into the annual report. The identities of complainants, respondents, witnesses, and others involved in the investigations will be protected subject to applicable federal law.

The report will also include lessons learned during the previous year, input from the annual meeting, and recommendations for action/deliberation by the Scientific Integrity Committee during the upcoming fiscal year, to ensure continuous improvement in implementation of the Scientific Integrity Policy.

Annual Meeting

The Scientific Integrity Committee will conduct an Agency-wide annual meeting on scientific integrity that will include the attendance of the Administrator or Deputy Administrator. The Annual Agency Scientific Integrity Meeting will summarize the status of scientific integrity at EPA, accomplishments and challenges, and reports from offices and regions, and provide an opportunity for attendees to ask the SIO and Chief Scientist questions.