

# USEPA Scientific Integrity Policy

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## **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<sup>1</sup> 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.

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<sup>1</sup> EPA Scientific Integrity Policy as updated, available at [https://www.epa.gov/sites/default/files/2014-02/documents/scientific\\_integrity\\_policy\\_2012.pdf](https://www.epa.gov/sites/default/files/2014-02/documents/scientific_integrity_policy_2012.pdf)

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

51  
52 In 1999, EPA developed Principles of Scientific Integrity<sup>4</sup> in conjunction with EPA's National Partnership  
53 Council, a partnership of Agency labor unions and management. These principles set forth the Agency's  
54 commitment to conducting science objectively, presenting results fairly and accurately, and avoiding  
55 conflicts of interest.

56  
57 In 2003, EPA released Order 3120.5, Policy and Procedures for Addressing Research Misconduct<sup>5</sup>,  
58 addressing fabrication, falsification, and plagiarism. Fabrication and falsification of research are  
59 investigated by the Office of the Inspector General (OIG) along with fraud, waste, and abuse. Plagiarism  
60 is normally investigated by the SIO and DSIOs.

61  
62 In 2012, EPA issued its first Scientific Integrity Policy, and in 2013 appointed its first full-time SIO based on  
63 provisions in both the 2009 Presidential Memorandum on Scientific Integrity<sup>6</sup>, and the 2010 Office of  
64 Science and Technology Policy (OSTP) Memorandum on Scientific Integrity<sup>7</sup>. Those documents, together  
65 with the 2021 Presidential Memorandum on Restoring Trust in Government Through Scientific Integrity  
66 and Evidence-based Policymaking<sup>8</sup>, informed this Policy update. As stated in the 2021 Memorandum,  
67 "Scientific and technological information, data, and evidence are central to the development and iterative  
68 improvement of sound policies, and to the delivery of equitable services and programs, across every area  
69 of government<sup>9</sup>." This Policy was informed not only by these documents, but also EPA's decade of  
70 experience implementing the 2012 Policy, including analysis of each loss of scientific integrity brought to  
71 the SIO and the results of Agency-wide scientific integrity surveys<sup>10</sup>. Also critical to the development of  
72 this Policy were the experiences of Federal agencies, and the informed engagement of stakeholders both  
73 inside and outside of government as reflected in the actions of the 2022 National Science and Technology  
74 Council Scientific Integrity Fast Track Action Committee and their report, *Protecting the Integrity of*

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<sup>2</sup> 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>

<sup>3</sup> Ibid.

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

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

<sup>6</sup> 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>

<sup>7</sup> 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>

<sup>8</sup> 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/>

<sup>9</sup> Ibid.

<sup>10</sup> Scientific Integrity Surveys Available at: <https://www.epa.gov/scientific-integrity/scientific-integrity-surveys>

75 *Government Science*<sup>11</sup> (SI-FTAC Report) and the National Science and Technology Council 2023 *Framework*  
76 *for Federal Scientific Integrity Policy and Practice*<sup>12</sup>.

77

### 78 **III. Scientific Integrity Definition and the Scientific Integrity Official**

79

80 EPA has adopted the official Federal definition of scientific integrity found in the National Science and  
81 Technology Council 2023 *Framework for Federal Scientific Integrity Policy and Practice*<sup>13</sup>:

82

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

87

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

93

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

101

### 102 **IV. Effective Date and Policy Amendments**

103

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

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<sup>11</sup> 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](https://www.whitehouse.gov/wp-content/uploads/2022/01/01-22-Protecting_the_Integrity_of_Government_Science.pdf)

<sup>12</sup> 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>

<sup>13</sup> Ibid.

109 **V. Applicability and Scope**

110  
111 Scientific integrity is the responsibility of the entire EPA workforce. Covered entities who must adhere to  
112 the provisions of this policy include: all EPA employees, political appointees, contractors<sup>14</sup>, grantees<sup>15</sup>,  
113 special government employees and advisory committee members. The policy applies when covered  
114 entities propose, conduct, or review science, communicate about science or scientific activities, or apply  
115 science to decision making; and to all levels of employees who manage or supervise scientific activities or  
116 use scientific information.

117  
118 All trainees, interns, fellows, partners, co-regulators (e.g., other federal agencies, states, Tribes, local  
119 municipalities), permittees, lessees, volunteers, and any other cooperators who engage or assist in  
120 scientific activities are expected to uphold the principles of scientific integrity established by this policy  
121 and may be required to do so as part of their respective agreements with EPA. Provisions of the policy will  
122 be set forth in individual agreements, contracts, statements of work, memoranda of understanding, etc.,  
123 and/or established via issuance of a rule or policy.

124  
125 **VI. Authorities**

126  
127 This Scientific Integrity Policy is issued under Reorganization Plan No. 3 of 1970, 84 Stat. 2086 (July 9,  
128 1970), which is the source of the Agency's housekeeping authority, and builds upon federal law and  
129 existing Agency and government-wide policies and guidance documents, enhancing EPA's overall  
130 commitment to scientific integrity. This policy will be implemented consistent with applicable law.

131  
132 Pursuant to the 2021 Presidential Memorandum on Restoring Trust in Government Through Scientific  
133 Integrity and Evidence-Based Policymaking<sup>16</sup>, and consistent with the 2009 Presidential Memorandum on  
134 Scientific Integrity<sup>17</sup> and the 2010 OSTP Memorandum on Scientific Integrity<sup>18</sup>, all Federal agencies must  
135 establish a scientific integrity policy. This policy is established in accordance with the following statutes:

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

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<sup>14</sup> 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>

<sup>15</sup> 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>

<sup>16</sup> 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/>

<sup>17</sup> 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>

<sup>18</sup> 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>

144 **VII. Definitions for the Purposes of this Policy**

145  
146 **Advice:** information or assistance provided by the SIO or any DSIO, including general discussions of  
147 administrative processes and procedures, clarifications of potential scientific integrity issues, clarification  
148 of any aspect of EPA’s Scientific Integrity Policy, and discussion of whether a concern is a scientific integrity  
149 issue. Early consultations are not considered allegations of a violation of the Scientific Integrity Policy.  
150

151 **Allegation:** an accusation of a suspected loss of scientific integrity or violation of the EPA Scientific  
152 Integrity Policy that is specifically designated as an allegation by the submitter.  
153

154 **Appearance of Conflict of Interest:** when an employee is involved in a particular matter involving specific  
155 outside parties (including individual, corporate entities, etc.) and the circumstances are such that a  
156 reasonable person with knowledge of the relevant facts would question the employee's impartiality in the  
157 matter. Such circumstances include, but are not limited to, the involvement of a relative, spousal  
158 employer, or former employer in the matter .<sup>19</sup>  
159

160 **Conduct of Science:** formulation of hypotheses, study design, testing, data collection and analysis,  
161 modeling, systematic review, statistical analysis, interpretation, findings, conclusions, and peer review.<sup>20</sup>  
162

163 **Covered Entities:** all EPA employees, political appointees, contractors<sup>21</sup>, grantees<sup>22</sup>, special government  
164 employees, and Federal advisory committee members. The policy applies when they propose, conduct,  
165 or review science, communicate about science and scientific activities, and apply science to decision  
166 making; and to all levels of employees who manage or supervise scientific activities and use scientific  
167 information. All cooperators, trainees, interns, fellows, partners, co-regulators (e.g., other federal  
168 agencies, states, tribes, local municipalities), permittees, lessees, and volunteers who engage or assist in  
169 scientific activities are expected to uphold the principles of scientific integrity established by this policy  
170 and may be required to do so as part of their respective agreements with EPA.  
171

172 **Delay:** cause something to take longer than reasonably expected or planned, postpone, or slow the  
173 completion or release of something. Delay in this policy refers to purposeful and unreasonable actions  
174 and not to normal time frames or the time needed for the completion of required processes.  
175

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

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

<sup>20</sup> 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>

<sup>21</sup> 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>

<sup>22</sup> 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>

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

187  
188 **Diversity, Equity, Inclusion, and Accessibility:** the practice of including the many communities,  
189 identities, races, ethnicities, backgrounds, abilities, cultures, and beliefs of the residents of the United  
190 States, including underserved communities; and the consistent and systematic fair, just, and impartial  
191 treatment of all individuals, including those who belong to underserved communities that have been  
192 denied such treatment. It is also the recognition, appreciation, and use of the talents and skills of  
193 employees of all backgrounds and the design, construction, development, and maintenance of facilities,  
194 information and communication technology, programs, and services so that all people, including those  
195 with disabilities, can fully and independently use them.<sup>23</sup>

196  
197 **Environmental Information:** includes data and information that describe environmental processes or  
198 conditions which support EPA’s mission of protecting human health and the environment.<sup>24</sup>

199  
200 **Ethical Behavior:** activities that reflect the norms for conduct that distinguish between acceptable and  
201 unacceptable behavior such as honesty, lawfulness, equity, and inclusion.<sup>25</sup>

202  
203 **Fabrication:** making up data or results and recording or reporting them.<sup>26</sup>

204  
205 **Falsification:** manipulating research materials or equipment or processes or changing or omitting data or  
206 results such that the research is not accurately represented in the research record.<sup>27</sup>

207  
208 **Inappropriate Influence:** the attempt to shape or interfere in scientific activities, or the communication  
209 about or use of scientific activities or findings, against well-accepted scientific methods and theories  
210 without scientific justification.

211  
212 **Inclusivity:** the practice of intentionally ensuring full participation of all people and all groups, including  
213 marginalized, underserved, and underrepresented contributors, without bias or prejudice. Full  
214 participation is enabled through equitable access and fair treatment in the organization. Inclusivity also  
215 means asking questions and conducting scientific activities that serve diverse constituencies and  
216 contribute to the equitable delivery of government services.<sup>28</sup>

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<sup>23</sup> 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/>

<sup>24</sup> 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](https://www.epa.gov/system/files/documents/2023-04/environmental_information_quality_policy.pdf)

<sup>25</sup> 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>

<sup>26</sup> 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>

<sup>27</sup> Ibid.

<sup>28</sup> 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/>

217 **Interference:** inappropriate, scientifically unjustified intervention in the conduct, management,  
218 communication, or use of science. It includes censorship, suppression, or distortion of scientific or  
219 technological findings, data, environmental information, or conclusions; inhibiting scientific  
220 independence during clearance and review; scientifically unjustified intervention in research and data  
221 collection; and/or inappropriate engagement or participation in the peer review process or on Federal  
222 advisory committees.<sup>29</sup>  
223

224 **Loss of Scientific Integrity:** failure to adhere to the Scientific Integrity Policy or to the principles of honesty,  
225 objectivity, and transparency; professional practices; and/or ethical behavior when conducting,  
226 managing, using the results of and communicating about science and scientific activities.  
227

228 **Peer Review:** a documented process for enhancing a scientific or technical work product so that the  
229 decision or position taken by the Agency, based on that product, has a sound, credible basis. It is  
230 performed by credible individuals who are independent of those who performed the work and who are  
231 collectively equivalent in technical expertise to those who performed the original work.<sup>30</sup>  
232

233 **Plagiarism:** the appropriation of another person's ideas, processes, results, or words without giving  
234 appropriate credit.<sup>31</sup>  
235

236 **Policy:** a high-level statement of principles that defines a course of action for a specific purpose and  
237 establishes broad elements that govern EPA's decision making.<sup>32</sup>  
238

239 **Political Interference:** interference conducted by political officials and/or motivated by political  
240 considerations.<sup>33</sup> It also includes interference by career employees acting under the direction of a political  
241 appointee or for their own political purposes.  
242

243 **Professional Practices:** conducting oneself with the qualities that are characterized by skill, competence,  
244 ethics, and courtesy.<sup>34</sup>  
245

246 **Quality:** the totality of processes, procedures, features, and characteristics of a product or service that  
247 bear on its ability to meet the stated or implied needs and expectations of the user.<sup>35</sup>

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<sup>29</sup> 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>

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

<sup>31</sup> 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>

<sup>32</sup> 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](https://sor.epa.gov/sor_internet/registry/termreg/searchandretrieve/termsandacronyms/search.do?search=&term=Policy&matchCriteria=Contains&checkedAcronym=true&checkedTerm=true&hasDefinitions=true#formTop)

<sup>33</sup> 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>

<sup>34</sup> Ibid.

<sup>35</sup> 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](https://www.epa.gov/system/files/documents/2023-04/environmental_information_quality_policy.pdf)

248 **Quality Assurance:** The management of an integrated system of activities involving planning,  
249 implementation, documentation, assessment, reporting, and quality improvement to ensure that a  
250 process, item, or service is of the type and quality needed and expected by the organization.<sup>36</sup>

251  
252 **Research Misconduct:** fabrication, falsification, or plagiarism in proposing, performing, or reviewing  
253 research, or in reporting research results; or ordering, advising, or suggesting that subordinates engage in  
254 research misconduct. Research misconduct does not include honest error or differences of opinion.<sup>37</sup>

255  
256 **Research Security:** safeguarding the research enterprise against the misappropriation of research and  
257 development to the detriment of national or economic security, related violations of research integrity,  
258 and foreign government interference.<sup>38</sup>

259  
260 **Science:** the careful study of the structure and behavior of the physical world, especially by watching,  
261 doing experiments, and developing theories to describe the results.<sup>39</sup> “Science” and “scientific” are  
262 expansive terms that refer to the full spectrum of scientific endeavors, e.g., basic science, applied  
263 science, engineering, technology, economics, social sciences, and statistics.<sup>40</sup>

264  
265 **Scientific Activities:** activities that involve the development and application of scientific methods and  
266 theories in a systematic manner, including, but not limited to: data collection, inventorying, monitoring,  
267 statistical analysis, surveying, observations, experimentation, study, research, integration, economic  
268 analysis, forecasting, predictive analytics, inference, modeling, technology development, scientific  
269 assessment<sup>41</sup>, and qualitative analysis.

270  
271 **Scientific Integrity:** the adherence to professional practices, ethical behavior, and the principles of  
272 honesty and objectivity when conducting, managing, using the results of, and communicating about  
273 science and scientific activities. Inclusivity, transparency, and protection from inappropriate influence are  
274 hallmarks of scientific integrity.<sup>42</sup>

275  
276 **Scientific Products:** work products that contain scientific information. These include but are not limited  
277 to: journal publications, reports, abstracts, posters, presentations, audio recordings, videos, web content,  
278 risk assessments, technical studies and guidance, analytic methods, scientific database designs, technical  
279 tools and models, technical protocols, statistical surveys/studies, technical background materials,  
280 technical guidance, research plans, and research strategies. They can support a research agenda,  
281 regulatory program, policy position, or other EPA position or action<sup>43</sup>.

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<sup>36</sup> Ibid.

<sup>37</sup> 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>

<sup>38</sup> 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>

<sup>39</sup> Science. February 2023. The Cambridge Dictionary. Available at:

<https://dictionary.cambridge.org/us/dictionary/english/science>

<sup>40</sup> 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>

<sup>41</sup> 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>

<sup>42</sup> Ibid.

<sup>43</sup>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](https://www.epa.gov/sites/production/files/2016-03/documents/epa_peer_review_handbook_4th_edition.pdf)



282 **Scientist:** anyone who collects, generates, uses, or evaluates scientific data, environmental information,  
283 analyses, or products.<sup>44</sup>  
284

285 **Suppression:** Preventing something from being expressed or known<sup>45</sup>.  
286

287 **Transparency:** ensuring all relevant data and information used to inform decision making or actions are  
288 visible, accessible, and easily usable by affected parties to the extent permitted by law.<sup>46</sup>  
289

## 290 **VIII. Policy Provisions**

291

### 292 **Promoting a Culture of Scientific Integrity**

293 EPA reaffirms and will promote a culture of scientific integrity across EPA by enhancing transparency and  
294 protecting Agency scientists. This means (1) creating an empowering environment conducive to  
295 innovation and progress, (2) protecting scientists, and (3) preserving the integrity of the scientific process  
296 and the communication of science. Scientific findings and products must not be interfered with,  
297 suppressed, unreasonably delayed, or altered for political purposes and must not be subjected to  
298 inappropriate influence. Policies and guidance that determine how scientific information is collected,  
299 evaluated, or used should be based on peer reviewed information.  
300

301 Scientific integrity is everyone’s responsibility. Both appointed and career EPA leadership at all levels will  
302 recognize, support, and promote this policy and its underlying principles, as well as model behavior  
303 exemplary of a strong culture of scientific integrity. EPA Assistant, Associate, and Regional Administrators  
304 are required to submit a certification of internal controls for scientific integrity as part of their compliance  
305 with the Federal Managers Financial Integrity Act (FMFIA).  
306

307 A strong culture of scientific integrity begins with ensuring a professional environment that is safe,  
308 equitable, inclusive, and free from harassment. Issues of diversity, equity, inclusion, and accessibility are  
309 integral to the scientific process, including the responsible and ethical conduct of research and other  
310 scientific activities.  
311

312 Successful application of science to inform Agency decisions relies on the integrity of the scientific process  
313 both to ensure the validity of scientific information and to engender public trust in the Agency. Thus, it is  
314 essential that EPA’s decision makers involve scientists on scientific issues and that the scientific  
315 information and processes relied upon for decision making manifest scientific integrity.  
316

317 To enhance our culture of scientific integrity, EPA will post this policy prominently on its website<sup>47</sup> and  
318 take other measures such as Agency-wide meetings, trainings, and mass mailers to keep scientific integrity  
319 visible at EPA. As part of its mandate, the Scientific Integrity Committee oversees the development and  
320 implementation of training related to scientific integrity for all Agency employees and as permitted by  
321 law, for other covered entities.  
322

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

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<sup>44</sup> 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>

<sup>45</sup> Cambridge Dictionary

<sup>46</sup> Ibid.

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

325 responsibilities under this Scientific Integrity Policy. EPA will also provide biennial training for those who  
326 propose, review, conduct, manage, and use the results of and communicate about science and scientific  
327 activities. Training will be tracked to ensure completion.  
328

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

- 330 1. Protecting Scientific Processes
  - 331 2. Reviewing Science, Including the Use of Federal Advisory Committees
  - 332 3. Ensuring the Free Flow of Scientific Information
  - 333 4. Supporting Decision Making Processes
  - 334 5. Ensuring Accountability
  - 335 6. Protections for Employees
  - 336 7. Professional Development for Government Scientists
- 337

### 338 1. Protecting Scientific Processes

339 Scientific integrity is essential for and fosters honest scientific investigation, open discussion, refined  
340 understanding, and a firm commitment to evidence. It also requires consideration of differing scientific  
341 opinions (DSOs) and their transparent documentation and other well-established processes that ensure  
342 scientific integrity. Science, and public trust in science, thrive in an environment that shields data, analysis,  
343 scientific or environmental information and their use in decision making from political interference or  
344 inappropriate influence.  
345

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

347

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

- 372 f. Require that all employees and other covered entities represent their contributions to scientific  
373 work fairly and accurately and neither accept nor assume unauthorized and/or unwarranted  
374 credit for another's accomplishments. To be named as an author, contributors should have made  
375 a substantial intellectual contribution, written, or provided editorial revisions that include critical  
376 intellectual content, approved the final version, and agreed to be accountable for their  
377 contributions to the work.
- 378 g. Design and implement scientific products and activities independent of any pre-determined  
379 desired outcome. The scope of scientific activities should be appropriate to the hypotheses being  
380 tested. Outcomes of the work must be based on evidence and transparently documented  
381 inference methods and approaches and not on a pre-determined opinion, decision, or outcome.
- 382 h. Require reasonable efforts by all employees and other covered entities to ensure the accuracy of  
383 the scientific record, show appropriate diligence toward protecting and conserving records of  
384 data, results, and environmental information that are entrusted to them, correct identified  
385 inaccuracies that pertain to their contribution to any scientific records, and comply with Agency  
386 policies and procedures for planning and conducting scientific activities.
- 387 i. Prohibit research misconduct, including fabrication, falsification, or plagiarism in proposing,  
388 performing, or reviewing scientific and research activities, or in the publication or reporting of  
389 these activities; or ordering, advising, or suggesting that subordinates or other covered entities  
390 engage in research misconduct. Research misconduct does not include honest errors or  
391 differences of opinion.<sup>48</sup>
- 392 j. Require the use of proper and appropriate methods and processes in conducting research and  
393 adherence to practices that ensure the quality of research and other scientific activities. Standard  
394 Operating Procedures (SOPs) and processes that determine the development or review of  
395 scientific products should be adhered to and applied consistently, including EPA's quality  
396 directives and standards<sup>49</sup>, and all appropriate scientific guidelines.
- 397 k. Ensure the independent review of Agency scientific facilities and testing activities, as occurs with  
398 accreditation by a nationally or internationally recognized sanctioning body and as called for by  
399 Agency policy directives.
- 400 l. Ensure the independent validation of scientific and laboratory methods and models and that all  
401 novel methods or models are appropriately peer reviewed prior to use. Appropriate instruction  
402 on the application of the methods or models and the peer review of these instructions should be  
403 developed and finalized before the method or model is used in Agency scientific products or  
404 decision making.
- 405 m. Ensure the right of last review for scientists for products that significantly rely on that scientist's  
406 research, identify them as an author, or represent their scientific opinion. The scientist(s) should  
407 be given the option and sufficient time to review the scientific content of the proposed product.  
408 In the case of differing scientific opinions, scientist(s) are encouraged to consult the Approaches  
409 to Differing Scientific Opinion document<sup>50</sup> and, as needed, their management chain, DSIO, the  
410 SIO, or the Chief Scientist.

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<sup>48</sup> 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>

<sup>49</sup> 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](https://www.epa.gov/system/files/documents/2023-04/environmental_information_quality_policy.pdf)

<sup>50</sup> 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](https://www.epa.gov/system/files/documents/2021-09/epas_approaches_for_expressing_and_resolving_differing_scientific_opinions.pdf)

- 411 n. Ensure that science-based decisions are informed by best available science. As permitted by law  
412 and necessary to ensure all regulatory decisions are fully informed and based on the best available  
413 science, EPA should request scientific data and full documentation from registrants, permittees,  
414 coregulators or other sources.
- 415 o. Ensure that, as appropriate, EPA consults and collaborates with Tribal Nations and Indigenous  
416 peoples to include Indigenous Knowledge in decision making. Ensure that Indigenous Knowledge  
417 is not obtained and included in Federal decision making without first obtaining consent or  
418 communicating Federal abilities and limitations to protect Indigenous Knowledge from  
419 disclosure or re-use, when provided to EPA.
- 420 p. Require that Dual Use Research of Concern,<sup>51</sup> research involving the participation of human  
421 subjects and the use of non-human animals,<sup>52</sup> are conducted in accordance with applicable,  
422 established laws and regulations, and ethical considerations.
- 423 q. Identify and follow timelines for scientific products and activities in a manner that ensures the  
424 accuracy, completeness, and quality of scientific information.
- 425 r. Prohibit directing economists, analysts, and other scientists to change the quantification and  
426 valuation of benefits and costs based on internal or external policy or political concerns. The  
427 Agency's economic analyses, including benefit-cost analyses, are scientific products intended to  
428 inform the decision-making process, like risk assessments and other scientific assessments. In an  
429 economic analysis, the decision of whether and how to quantify and value the benefits and costs  
430 of a policy option are scientific decisions. Further, an economic assessment should not be changed  
431 except as needed to correct technical errors in the science or application of science or incorporate  
432 scientifically justified information. EPA's *Guidelines for Performing Economic Analyses*<sup>12</sup> provides  
433 scientific considerations for assessing benefits, costs, and economic impacts, and should be  
434 followed.
- 435 s. Ensure that emerging modes of science, such as participatory science and community-engaged  
436 research, are transparent about their use of standards of scientific integrity that traditional modes  
437 are expected to uphold. Further, scientific integrity practices must be applied in ways that are  
438 inclusive of these emerging modes of science.
- 439 t. Ensure that artificial intelligence tools are used consistent with Agency and Federal government  
440 policy and care should be taken that any future permitted uses are closely monitored to be sure  
441 they do not violate this Policy, for example as concerns authorship and attribution.
- 442 u. Enhance the security and integrity of the research enterprise and protect against foreign  
443 government interference and misappropriation, while maintaining an open environment to foster  
444 research discoveries and innovation. Research security policies, such as the National Security  
445 Presidential Memorandum 33 (NSPM-33)<sup>53</sup> and subsequent Guidance for Implementing NSPM-

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<sup>51</sup> 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](https://www.epa.gov/sites/default/files/2017-03/documents/1000_19.pdf)

<sup>52</sup> 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*.

<sup>53</sup> 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/>

446 33<sup>54</sup>, provide guidance for guarding against foreign abuses and protecting intellectual property  
447 rights by focusing on coordinating appropriate and effective risk management.  
448

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

450 Independent review of Agency science is crucial to EPA scientific integrity. To ensure that scientific  
451 products undergo appropriate peer review by qualified experts, the EPA relies on its Peer Review Policy<sup>55</sup>  
452 and Peer Review Handbook.<sup>56</sup> The Peer Review Handbook describes the range of peer review options,  
453 from individual letter reviews from outside experts to large, formal reviews by EPA Federal Advisory  
454 Committees (FACs) or the National Academies of Sciences, Engineering, and Medicine.  
455

456 All reviewers of EPA science should take the mandatory onboarding scientific integrity training if they have  
457 not already done so and Designated Federal Officials should provide them with access to this Policy.  
458

### 459 a. Peer Review<sup>57</sup>

460 It is the policy of EPA to:  
461

- 462
- 463 i. Ensure adherence to applicable Agency peer review policies and procedures, ensuring that  
464 the Agency produces scientific products of the highest quality, rigor, and objectivity for use in  
465 Agency decisions.
- 466 ii. Ensure peer review charge questions address all relevant scientific questions, including those  
467 raised in DSOs, and are free from any interference, especially interference that may  
468 inappropriately limit the scope of the review.
- 469 iii. Ensure the recruitment process for peer reviewers is as transparent as practicable. When peer  
470 reviewers are needed and when practicable and appropriate, notice of the need for reviewers  
471 should be made widely available, including notification in the Federal Register with an  
472 invitation for the public to recommend individuals for consideration and for self-nominations  
473 to be submitted.
- 474 iv. Ensure the selection of peer reviewers, including internal scientific reviewers, is based on  
475 expertise, knowledge, contribution to the relevant subject area, and balance of the scientific  
476 or technical points of view represented by the reviewers. External peer reviewers must be  
477 evaluated for conflicts of interest and any such conflicts of interest should be transparently  
478 addressed to determine whether the conflicts are substantive and warrant preclusion of the  
479 reviewer from selection or participation in the review.
- 480 v. Make professional biographical information (including current and past professional  
481 affiliations) for appointed peer reviewers widely available to the public (e.g., via a website)  
482 subject to the Privacy Act of 1974 and other statutory/regulatory considerations. Such  
483 information should clearly illustrate the individuals' qualifications for serving.
- 484 vi. Ensure all best practices for selecting reviewers and conducting scientific review are followed  
485 for contractor-led peer reviews, including review for conflicts of interest and selection based

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<sup>54</sup> 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>

<sup>55</sup> 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](https://www.epa.gov/sites/default/files/2015-01/documents/peer_review_policy_and_memo.pdf)

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

<sup>57</sup> Excluding peer review conducted by journals in their consideration of a manuscript for publication.

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

- 492 vii. Ensure EPA decisions are based on or informed by science that has completed independent  
493 peer review and has been finalized.
- 494 viii. Not substitute expert elicitation and peer consultation for external peer review.
- 495 ix. Ensure that Agency managers and other Agency appointed and career leadership not suggest  
496 scientifically unjustified changes to scientific content. Their reviews should be focused on  
497 scientific quality considerations (e.g., the methods used are clear and appropriate, the  
498 presentation of results and conclusions is impartial and does not include proscriptive policy  
499 unless the authors are otherwise authorized to include such content).
- 500 x. When scientifically justified, allow managers to edit or ask for additional scientific review.

501

- 502 b. Review by EPA Scientific or Technical Federal Advisory Committees

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

512

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

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<sup>58</sup> 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>

<sup>59</sup> 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>

<sup>60</sup> 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>

<sup>61</sup> EPA Federal Advisory Committee Handbook (August 2021).

<sup>62</sup> 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>

<sup>63</sup> 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](https://usepa.sharepoint.com/sites/OGC_Work/ethics/Shared%20Documents/EPA%20%20Ethics%20Advisory%202022-01A%20on%20SGEs%20-%20signed%202-16-22.pdf)

521 It is the policy of EPA to:  
522  
523 i. Make the recruitment process for new FAC members as transparent as practicable. EPA will  
524 announce FAC member vacancies widely, including notification in the Federal Register, with  
525 an invitation for the public to recommend individuals for consideration and for self-  
526 nominations to be submitted.<sup>64</sup>  
527 ii. Make professional biographical information (including current and past professional  
528 affiliations) for appointed committee members widely available to the public (e.g., via a  
529 website) subject to relevant statutory and regulatory considerations. Such information should  
530 clearly illustrate the individuals' qualifications for serving on the committee.<sup>65</sup>  
531 iii. Select members to serve on a scientific or technical FAC based on expertise, knowledge,  
532 contribution to the relevant subject area, balance of the scientific or technical points of view  
533 represented by the members, and the consideration of conflicts of interest. When an EPA  
534 scientific or technical FAC conducts a peer review, the Agency should ensure that all necessary  
535 scientific viewpoints and expertise are represented.<sup>66</sup>  
536 iv. Ensure the selection process is overseen by career EPA officials.  
537 v. Except when prohibited by law, appoint members of scientific and technical FACs as Special  
538 Government Employees and make all conflict of interest waivers granted to committee  
539 members publicly available (e.g., via website).<sup>67</sup>  
540 vi. Ensure that members of scientific and technical FACs appointed as Special Government  
541 Employees receive training in scientific integrity and on EPA's Scientific Integrity Policy.  
542 vii. Treat all reports, recommendations, and products produced by FACs as solely the findings of  
543 such committees rather than of the EPA, and thus not subject them to intra- or inter-agency  
544 revision except when explicitly stated in a prior agreement between EPA and a FAC.<sup>68</sup>  
545 viii. Ensure FAC charge questions address all relevant scientific questions, including those raised  
546 in DSOs, and are free from any interference, especially interference that may inappropriately  
547 limit the scope of the review.  
548  
549 c. Other Scientific Review  
550 The Agency conducts research, and its products are subject to other kinds of scientific review. It  
551 is the policy of EPA to:  
552  
553 i. Ensure that comments received on draft scientific documents during any interagency review  
554 are made in writing and made public.  
555 ii. Ensure career EPA employees make the final determination concerning changes or suggested  
556 changes to scientific documents or other scientific products in response to external (including  
557 interagency) comments.

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<sup>64</sup> 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>

<sup>65</sup> Ibid.

<sup>66</sup> Ibid.

<sup>67</sup> Ibid.

<sup>68</sup> Ibid.

558           iii.    Ensure offices and regions are consulted early on cross-agency products and given sufficient  
559           time to provide appropriate review. When there are differences of scientific opinion, DSO  
560           approaches<sup>69</sup> should be undertaken and completed.  
561

### 562           **3. Ensuring the Free Flow of Scientific Information**

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

580  
581           It is the policy of EPA to:

- 582
- 583           a.    Facilitate the free flow of scientific and technological information, consistent with privacy and  
584           classification standards. Consistent with Open Government requirements, EPA promotes access to  
585           scientific and technological information produced by or funded by the EPA by making it available  
586           freely to the public in an online digital format as described in OSTP's 2022 memo *Ensuring Free,  
587           Immediate, and Equitable Access to Federally Funded Research*<sup>70</sup>, OSTP's 2013 memo on public  
588           access<sup>71</sup>, and EPA's 2016 *Plan to Increase Access to Results of EPA-funded Scientific Research*<sup>72</sup>.
  - 589           b.    Ensure that scientific findings and products are not suppressed, unreasonably delayed, or altered for  
590           non-scientific reasons or due to political interference or inappropriate influence. This includes  
591           scientific findings and products generated by contractors, grantees, or other Agency partners who  
592           assist with developing or applying the results of scientific activities.
  - 593           c.    Ensure that mechanisms are in place to resolve disputes that may arise related to releases of  
594           scientific and technological information.

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<sup>69</sup> 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](https://www.epa.gov/system/files/documents/2021-09/epas_approaches_for_expressing_and_resolving_differing_scientific_opinions.pdf)

<sup>70</sup> 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>

<sup>71</sup> OSTP Memo on Public Access. 2013. Available at: [https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/ostp\\_public\\_access\\_memo\\_2013.pdf](https://obamawhitehouse.archives.gov/sites/default/files/microsites/ostp/ostp_public_access_memo_2013.pdf)

<sup>72</sup> 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>



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

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<sup>73</sup> EPA’s Elevation Policy. Available at: <https://www.epa.gov/aboutepa/reaffirming-epas-elevation-policy-december-28-2022>

<sup>74</sup> 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](#).

- 636 manner that may compromise the objectivity or accurate representation of the scientific  
637 information.
- 638 n. Make every effort to provide knowledgeable scientists as spokespersons in response to media  
639 requests about the scientific or technological aspects of EPA's work. This does not include describing  
640 the policy implications of such work. Public and media questions about any policy implications  
641 raised by scientific studies should be addressed by designated Agency officials responsible for  
642 conveying information about EPA policy matters, such as program policy experts or designated  
643 spokespersons.
- 644 o. Ensure that responses to Congressional inquiries, official testimony, and other requests that include  
645 scientific information accurately represent the science. If testifying before Congress in their official  
646 capacity (i.e., on behalf of the EPA), Agency experts should communicate on matters associated with  
647 their work or area(s) of expertise in an accurate and clearly understandable manner. Whenever  
648 possible, scientists should be permitted to testify on their scientific results.
- 649 p. Ensure that Office of Congressional and Intergovernmental Relations (OCIR) staff members  
650 coordinate with Agency scientists and managers to ensure that Congressional inquiries regarding  
651 EPA science receive accurate and responsive answers.
- 652 q. Accurately represent the work and conclusions of Agency employees in official Agency social media  
653 communications. When communicating on social media in their personal capacities, EPA scientists  
654 may express their personal views and opinions provided they do so pursuant to the applicable  
655 Federal ethics rules.<sup>75</sup> If employees disclose their EPA employment on their personal social media, a  
656 disclaimer clarifying that the account or communication represents personal views should be  
657 included.<sup>76</sup>
- 658 r. Ensure that social media managers correct any errors identified by scientists whose work is  
659 represented in EPA social media.
- 660 s. Require open and honest communication at all levels, including opportunities for staff to contact  
661 senior leaders regarding scientific issues without fear of retaliation, retribution or reprisal and  
662 encourage they report retribution, retaliation, or reprisal to the OIG or Office of the Special Counsel.
- 663 t. Allow EPA scientists to respond to internal or external scientific criticisms of EPA scientific products,  
664 findings, or conclusions that they were significantly involved in developing.
- 665 u. Require that technical review and clearance processes include provisions for timely clearance and  
666 expressly forbid unreasonable delay and suppression of scientific products without scientific  
667 justification. Authors are responsible for completion of manuscripts and other products subject to  
668 clearance to allow time for the clearance process. Clearance should generally not result in missing  
669 media and other publication deadlines or the removal of EPA scientists from joint publications with  
670 external co-authors.
- 671 v. Ensure the Office of Public Affairs closely coordinates with involved Agency scientists to ensure the  
672 accuracy of any Agency scientific information to be issued by the EPA in science-based  
673 communications including during a nationally significant incident or environmental crisis.

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<sup>75</sup> Standards of Ethical Conduct for Employees of the Executive Branch, [5 C.F.R. Part 2635](#).

<sup>76</sup> Ethics Disclaimers chart or consult with your agency ethics official or EPA Ethics ([ethics@EPA.gov](mailto:ethics@EPA.gov)).

674 **4. Supporting Decision Making Processes**

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

682  
683 It is the policy of EPA to:

- 684
- 685 a. Ensure the quality, accuracy, and transparency of scientific information used to support policy  
686 and decision making including:
    - 687 i. Using scientific information that is subject to well-established scientific processes.
    - 688 ii. Ensuring that science-based decisions are informed by the best available science. As  
689 permitted by law and necessary to ensure all regulatory decisions are fully informed and  
690 based on the best available science, EPA should request scientific data from registrants,  
691 permittees or coregulators.
    - 692 iii. Ensuring the accuracy of the communication of the science upon which a policy decision is  
693 based.
  - 694 b. Prohibit decision makers from knowingly misrepresenting, exaggerating, or downplaying areas of  
695 scientific uncertainty in both scientific and policy documents and policy decisions.
  - 696 c. Ensure that scientific data, environmental information, and research used to support policy  
697 decisions undergo review by qualified experts, where feasible and appropriate, and consistent  
698 with law.
  - 699 d. Ensure that draft documents released as part of transparency efforts are not relied upon for  
700 decision making. These documents are not considered disseminated. Reflect scientific  
701 information appropriately and accurately and ensure that it is free of misinformation; and make  
702 scientific work, findings or conclusions considered or relied on in policy decisions publicly available  
703 online and in open formats, to the extent practicable and consistent with law.
  - 704 e. Use transparent criteria in instances where a statute gives the Agency discretion in weighing  
705 scientific information in its actions and make the criteria publicly available.
  - 706 f. Use the Action Development Process (ADP)<sup>78</sup> for regulatory Agency actions that are informed by  
707 science and provide a publicly available justification when the ADP is not used.
  - 708 g. Participating members and scientists in a regulatory workgroup should be cognizant of potential  
709 scientific integrity issues and seek to review and resolve any as early as possible within the ADP  
710 process or elevate them to their DSIO or the SIO.
  - 711 h. Ensure that employees from relevant offices and regions on ADP workgroups for actions that are  
712 informed by science have the appropriate scientific expertise. Scientific perspectives of internal  
713 stakeholder offices should be considered in decisions informed by science.

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<sup>77</sup> 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>

<sup>78</sup> 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>

- 714 i. Recognize the expression of differing scientific opinions as a legitimate and necessary part of the  
715 scientific process and include differing scientific opinions, and when resolved, a description of the  
716 resolution, in draft materials during both policy and scientific decision-making processes where  
717 appropriate and allowable by law. When an Agency employee who is substantively engaged in a  
718 scientific project disagrees with the scientific data, environmental information, interpretations,  
719 or conclusions that are part of that project or that may be relied upon for any decision making,  
720 the employee is encouraged to express that opinion complete with rationale and in writing.  
721 “Substantively engaged in the science” refers to having contributed scientific expertise in an  
722 official capacity as a co-author or subject matter expert in the development of a scientific product,  
723 beyond presence at meetings or on mailing lists. EPA has developed *Approaches for Expressing  
724 and Resolving Differing Scientific Opinions*<sup>79</sup> to assist scientists with this process. If DSOs are not  
725 resolved during internal deliberations, they can be part of peer review charge questions with the  
726 results publicly available. When there is no peer review, the differing scientific opinion will be  
727 represented in the Agency draft and in deliberative documents for the decision maker’s  
728 consideration.
- 729 j. Where legally permissible and appropriate and without recommending a specific Agency action,  
730 allow authors of scientific products to include a comprehensive listing of relevant policy  
731 possibilities. It is also appropriate to have descriptive policy content that describes the historical  
732 and current context for scientific content, as part of explaining the motivation for the work and  
733 the rationale for selection of hypotheses.
- 734 k. Where legally permissible and appropriate, enable scientists to directly participate in policy and  
735 management discussions that inform decisions where their science is being used to ensure that  
736 the science is accurately represented and interpreted.  
737

## 738 5. Ensuring Accountability

739 Safeguarding scientific integrity includes procedures to encourage reporting of concerns and potential  
740 violations; addressing concerns; and when concerns or alleged violations are found to be valid, restoring  
741 scientific integrity, correcting the scientific record, and making recommendations for preventing potential  
742 future violations, regardless of whether the violation of scientific integrity was willful, intentional or  
743 inadvertent. Substantiated violations are communicated to management for their imposition of specific  
744 and appropriate consequences. Violations of scientific integrity policies should be taken as seriously as  
745 violations of government ethics rules and should lead to appropriate consequences.  
746

747 It is the policy of EPA to:

- 748
- 749 a. Ensure the establishment of clear administrative actions for violations of this policy that designate  
750 responsibility for each aspect of accountability. Actions may be substantiated by administrative  
751 processes carried out by different parts of the Agency such as the management of the relevant  
752 office or region, the Scientific Integrity Program, the OIG, and the Office of Human Resources.
- 753 b. Mandate that both career and appointed supervisors, managers, and senior leaders exemplify  
754 firm commitment to scientific integrity and hold staff accountable for upholding this policy.
- 755 c. Mandate that the SIO, together with the Scientific Integrity Committee, draft procedures such  
756 that when responding to allegations of compromised scientific integrity, the response is done in

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<sup>79</sup> 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](https://www.epa.gov/system/files/documents/2021-09/epas_approaches_for_expressing_and_resolving_differing_scientific_opinions.pdf)

- 757 a timely, objective, and thorough manner. These procedures should include the following steps:  
758 an initial assessment and review, a fact-finding process, an Agency adjudication or determination  
759 including description of remedies and preventative measures to safeguard the science, an appeals  
760 process, follow-up to track implementation of remedies, and reporting. These procedures should  
761 document the necessary aspects for each step of the process including burden of proof, any  
762 necessary determination of intentionality, and reporting, as well as the roles of the SIO, DSIOs and  
763 Agency managers and staff.
- 764 d. Encourage and facilitate early informal or formal consultation with the SIO or any DSIO to seek  
765 advice on preventing a situation of concern, to determine if it is a potential violation of the  
766 Scientific Integrity Policy, and to ascertain if it should be referred to the OIG or elsewhere in the  
767 Agency for resolution. Early consultations are not considered allegations of a violation of the  
768 Scientific Integrity Policy.
  - 769 e. Ensure that scientific integrity policy violations are promptly addressed with an emphasis on how  
770 to prevent them in the future.
  - 771 f. To the extent possible, and as allowed by law, keep confidential the identities of submitters,  
772 subjects, witnesses, and experts interviewed by the Scientific Integrity Program as part of an initial  
773 assessment, fact-finding, or investigation.
  - 774 g. Expect all parties to cooperate with the Scientific Integrity Program during the assessment, fact-  
775 finding, or investigation of scientific integrity concerns.
  - 776 h. Ensure correction of the scientific record when inaccuracies or deficiencies are identified or an  
777 allegation of a loss of scientific integrity is substantiated.
  - 778 i. Provide clear guidance on how to formally report concerns and allegations of Scientific Integrity  
779 Policy violations. Those who report concerns and allegations need not be directly involved or  
780 witness a violation.
  - 781 j. Allow EPA offices and regions to enact stronger Scientific Integrity policies and procedures than  
782 are detailed in this Policy. These policies and procedures may not be less stringent than this Policy.
  - 783 k. Allow EPA scientists to speak with OIG, Government Accountability Office, or other appropriate  
784 investigative bodies privately regarding scientific issues.

## 785 **6. Protections for Employees**

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

796  
797 It is the policy of EPA to:

- 798  
799 a. Prohibit managers and other Agency appointed and career leadership from intimidating or  
800 coercing scientists to alter scientific activities, scientific products scientific data, scientific and

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<sup>80</sup> 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>

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

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

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

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

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

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

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

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

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

832 h. Promote diversity, equity, inclusion, and accessibility in the scientific workforce and work to  
833 create safe workspaces that are free from harassment and discrimination<sup>86, 87</sup>.

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

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

<sup>83</sup> Presidential Policy Directive 19. October 10, 2012. Available at: [https://www.va.gov/about\\_va/docs/president-policy-directive-ppd-19.pdf](https://www.va.gov/about_va/docs/president-policy-directive-ppd-19.pdf)

<sup>84</sup> 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>

<sup>85</sup> The Notification and Federal Employee Antidiscrimination and Retaliation Act of 2002 (No-FEAR Act) Pub. L. 107-174.

<sup>86</sup> 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](https://www.epa.gov/sites/default/files/2016-01/documents/epa_order_4711_workplace_harassment_final.pdf)

<sup>87</sup> 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/>

834 **7. Professional Development for Government Scientists**

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

839

840 It is the policy of EPA to:

841

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

861

862 **IX. Scientific Integrity Committee**

863

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

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<sup>88</sup> Federal ethics rules at [5 C.F.R. Part 2635](#).

<sup>89</sup> EPA Supplemental Ethics Regulations at [5 C.F.R. Part 6401](#).

<sup>90</sup> The representational conflict of interest laws at [18 U.S.C. §§ 203](#).

<sup>91</sup> Federal ethics rules at [5 C.F.R. Part 2635](#).

<sup>92</sup> 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](https://www.epa.gov/sites/default/files/2020-03/documents/scic_charter_final_march2020.pdf)

872 **X. Procedures**

873  
874 The SIO, in conjunction with the Scientific Integrity Committee, will expeditiously draft and prominently  
875 post on EPA’s website necessary procedures including those on addressing scientific integrity concerns,  
876 addressing DSOs, and others such as clearance of scientific products, scientific communications,  
877 authorship and attribution, and other topics as needed.

878  
879 **XI. Roles and Responsibilities**

880  
881 While scientific integrity is everyone’s responsibility, the following individuals have specific scientific  
882 integrity roles and responsibilities:

883  
884 **1. EPA Administrator and Deputy Administrator**

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

900  
901 **2. EPA Science Advisor**

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

913  
914 **3. EPA Chief Scientist**

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



- 919 a senior level, for example as an ST (scientific or professional), Senior Leader (SL), or a Senior  
920 Executive Service (SES) member.
- 921 b. In cooperation with the SIO and Scientific Integrity Committee, oversees the implementation and  
922 iterative improvement of policies and processes affecting the integrity of science funded,  
923 conducted, communicated, managed, or used by the Agency, as well as policies affecting Federal  
924 and non-Federal scientists who support the scientific activities of the Agency, including policies  
925 related to scientific integrity.
- 926 c. Is aware of and upholds the principles contained in this policy and the Code of Scientific Conduct  
927 (when released). Attends and actively participates in all required training.
- 928 d. Ensures Agency compliance with corrective scientific actions when violations of this policy are  
929 substantiated, and along with administrative actions for substantiated violations of scientific  
930 integrity policies, designates responsibility for each aspect of accountability. May seek assistance  
931 from the National Science and Technology Council Subcommittee on Scientific Integrity in cases  
932 of disagreement.
- 933 e. Provides science oversight and management of the Science and Technology Policy Council (STPC),  
934 including ensuring the consistency of their actions with this Policy.
- 935

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

- 937 a. Is a designated, full-time equivalent, career employee who holds a permanent tenured  
938 appointment, has Agency-appropriate scientific credentials and is appointed at a senior level, for  
939 example as an ST (scientific or professional) or Senior Leader (SL). Oversees implementation and  
940 iterative improvement of scientific integrity policies and processes providing leadership, acting to  
941 champion scientific integrity, and serving as the primary Agency-level contact for questions  
942 regarding scientific integrity. Ensures that scientific integrity activities and outcomes are  
943 appropriately monitored and evaluated.
- 944 b. Leads training and outreach initiatives to facilitate employee awareness and understanding of this  
945 Policy.
- 946 c. Chairs the EPA Scientific Integrity Committee and leads their regular meetings.
- 947 d. Serves as a neutral point of contact for receiving scientific integrity questions and concerns and  
948 allegations of compromised scientific integrity.
- 949 e. Provides independent oversight of Agency responses to allegations of compromised scientific  
950 integrity referred for an inquiry or investigation, including:
- 951 i. Reviewing Agency-submitted reports of allegations and their disposition.
- 952 ii. Conducting initial assessments of allegations and submitted materials.
- 953 iii. Following established procedure to make determinations.
- 954 iv. Maintaining a status report of responses to allegations as a means of monitoring the progress  
955 toward resolution.
- 956 f. Reports to the Chief Scientist on matters involving scientific integrity.
- 957 g. Coordinates with the Office of the General Counsel (OGC), OIG, the EPA Ethics Office, the Office  
958 of Human Resources, the OPA, and other offices, as needed.
- 959 h. Reports to the OIG any potentially criminal behavior, immediate and significant risk to public  
960 health or safety, immediate or significant threats to Agency resources or interests, retaliation,  
961 retribution, or reprisal against employees, fraud, waste, and abuse in EPA programs,  
962 circumstances where action is required to safeguard evidence or protect the rights of  
963 whistleblowers, and misconduct in research procured through EPA contracts or assistance  
964 agreements that is uncovered while responding to an allegation of a loss of scientific integrity;  
965 and coordinates as appropriate regarding the OIG referral.

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

985  
986 **5. Deputy Scientific Integrity Official (DSIO)**

- 987 a. Annually certifies compliance at the office/region level with the Scientific Integrity Policy.  
988 Provides, through the annual Federal Managers Financial Integrity Act process, descriptions of  
989 their office's or region's efforts to ensure scientific integrity. This annual reporting will include  
990 scientific integrity successes, as well as identifying areas for improvement.
- 991 b. Serves as needed on review panels to evaluate allegations of a loss of scientific integrity.
- 992 c. Convenes and leads meetings within their respective units to update and inform colleagues on  
993 the status of scientific integrity at EPA, as well as their office or region.
- 994 d. Prepares for and attends Scientific Integrity Committee meetings including providing comments  
995 on scientific integrity documents as needed.
- 996 e. Encourages and ensures appropriate training within their office or region.
- 997 f. Notifies the SIO ahead of discussions or decisions if a potential or actual conflict of interest exists  
998 between their interests and the Scientific Integrity Committee's commitments or obligations, such  
999 as may arise in the SI Committee or a review panel's discussion of an allegation or other matter.
- 1000 g. Communicates any concerns or allegations of a loss of scientific integrity received from their office  
1001 or region, or from other sources to the SIO.
- 1002 h. As appropriate, oversees implementation and iterative improvement of scientific integrity policies  
1003 and processes.
- 1004 i. Is available to address any questions or concerns regarding scientific integrity and this policy.
- 1005 j. Assists the SIO or Chief Scientist as needed and agreed to.

1006  
1007 **6. Scientific Integrity Committee**

- 1008 a. Provides leadership for the Agency on Scientific Integrity.
- 1009 b. Implements this policy across the Agency in a consistent manner.
- 1010 c. Promotes Agency compliance with this policy, including creating mechanisms to ensure  
1011 accountability for safeguarding against political interference or inappropriate influence by  
1012 managers and other Agency appointed and career leadership.

- 1013 d. Addresses Scientific Integrity Policy concerns, updates, and amendments and offers suggestions
- 1014 for implementation improvements.
- 1015 e. Provides an annual meeting and annual report on scientific integrity implementation.
- 1016 f. Keeps the Agency's senior appointed and career leadership informed on and involved with the
- 1017 Agency-wide status of scientific integrity, as necessary and appropriate.
- 1018 g. Develops Agency-wide best practices for the approval of scientific products and communications
- 1019 for use by each office and region to develop and document consistent, transparent, and
- 1020 predictable procedures for clearance with the goal of standard practices across the Agency.
- 1021 h. Oversees the development and implementation of training related to scientific integrity for all
- 1022 Agency employees.
- 1023 i. Ensures offices and regions' participation in Agency scientific integrity surveys and other
- 1024 evaluation and assessment of EPA scientific integrity.
- 1025

1026 **7. EPA Public Affairs Officials**

- 1027 a. With input from program managers, designate knowledgeable and articulate scientific
- 1028 spokespersons from offices or regions to coordinate with EPA scientists and managers for the
- 1029 purpose of ensuring that Agency research is clearly, accurately, and accessibly presented, in a
- 1030 timely manner, thereby best serving the needs of both the media and the public.
- 1031 b. Are aware of and uphold the principles contained in this policy. Attend and actively participate in
- 1032 all required training.
- 1033 c. Alert and coordinate with involved scientists and managers when they receive media inquiries
- 1034 about their research or other scientific activities.
- 1035 d. Ensure that the science is plainly and clearly communicated for the intended audience in a timely
- 1036 fashion. Under no circumstances should the Public Affairs staff attempt to alter or change
- 1037 scientific information, findings, or results.
- 1038 e. May, but are not required to, attend interviews of scientists with members of the media, to ensure
- 1039 that the Agency is being fully responsive to media questions in a timely manner and to ensure
- 1040 responsiveness, consistency, and accuracy both on the part of the interviewer and when
- 1041 responding to future information requests.
- 1042

1043 **8. Managers and Supervisors**

- 1044 a. Comply with and ensure Agency and employee compliance with the scientific integrity policy.
- 1045 b. Listen to and advise employees and other covered entities about allegations of compromised
- 1046 scientific integrity and take action as appropriate when allegations are substantiated.
- 1047 c. Are aware of and uphold the principles contained in this policy and the Code of Scientific Conduct
- 1048 (when released). Attend and actively participate in all required training.
- 1049 d. Lead through example by upholding scientific integrity principles and communicating the
- 1050 importance of doing so.
- 1051 e. Report any knowledge of potential losses of scientific integrity to the SIO or any Deputy SIO.
- 1052 f. Refrain from committing prohibited personnel practices (as defined in 5 U.S.C. 2302(b)) against
- 1053 all employees including those Agency employees and other covered entities who uncover and
- 1054 report allegations of compromised scientific integrity in good faith, as well as those Agency
- 1055 employees alleged to have compromised scientific integrity.
- 1056 g. Consult, as appropriate depending upon the nature of the allegation or assistance needed, with
- 1057 the SIO, human resources officer, OIG, OGC, Office of Environmental Justice and Civil Rights,
- 1058 contracting and grant personnel, and ethics officials.
- 1059

- 1060 **9. Employees and other covered entities**
- 1061 a. Are aware of the principles contained in this policy and how the policy applies to their duties.
- 1062 Attend and actively participate in all required training.
- 1063 b. Are aware of and abide by the Code of Scientific Conduct when released and adhere to accepted
- 1064 professional values and practices of the relevant research/scientific communities to ensure
- 1065 scientific integrity.
- 1066 c. Report to the SIO or any DSIO any knowledge of and/or allegations of compromised scientific
- 1067 integrity.
- 1068 d. Participate as needed and appropriate in any investigation of alleged Scientific Integrity Policy
- 1069 violations.
- 1070 e. Cooperate with any scientific integrity inquiry or investigation.
- 1071

1072 **XII. Monitoring and Evaluating Scientific Integrity Activities and Outcomes**

1073

1074 EPA will develop and implement an evaluation plan to regularly measure, monitor, and evaluate ongoing

1075 scientific integrity activities and outcomes. The plan will include a roadmap of activities and expected

1076 outcomes, the steps needed to assess them, the methods and metrics used in that assessment, and how

1077 the data will be analyzed on a regular basis and used for ongoing improvement of scientific integrity

1078 processes, procedures, and policies. The plan will include a timeline for implementation and frequency of

1079 data collection, analysis, review, recommendations, and implementing these recommendations.

1080 Monitoring and evaluation results, recommendations, and policy/procedure changes based on results will

1081 be reported to Agency leadership and will be made available to Agency staff and the public in a timely

1082 manner.<sup>93</sup>

1083

1084 **XII. Annual Review, Annual Reporting, and Annual Meeting**

1085

1086 **Annual Review and Certification**

1087 DSIOs will conduct an annual review of scientific integrity in their respective Office or Region. Certification

1088 of their respective Office or Region's compliance with the Scientific Integrity Policy, and a summary of

1089 accomplishments and challenges, are to be included in this review. The Agency will utilize its Federal

1090 Managers Financial Integrity Act (FMFIA) Management Integrity Program to collect these certifications

1091 and annual reviews.

1092

1093 **Annual Report**

1094 The SIO, with input from the Scientific Integrity Committee, will generate and release an annual report on

1095 the status of scientific integrity at EPA, making it prominently available on the Agency's public facing

1096 website, and delivering it to the EPA Chief Scientist, EPA Science Advisor, Administrator, Deputy

1097 Administrator, and other leadership. The report will highlight scientific integrity successes and

1098 accomplishments across EPA, such as any new scientific integrity hires, training, and changes to scientific

1099 integrity practices and policies. It will identify areas for improvement and weaknesses and include a plan

1100 for addressing critical weaknesses, if any are identified. It will report on progress toward achieving the

1101 critical criteria and metrics in the Framework for Federal Scientific Policy and Practice, including

1102 comparisons to the same metrics from prior years to show trends over time. It will also include the number

1103 of scientific integrity administrative investigations overseen by the SIO or Deputy SIO, requests for

1104 assistance, inquiries and appeals involving alleged or actual deviations from the scientific integrity policy,

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

1105 and the number of investigations and pending appeals that were completed that year and any that are  
1106 ongoing. Annual reporting will also include anonymized individual closed scientific integrity allegation  
1107 summaries. These summaries may be posted in a timely manner after completion of inquiries and/or  
1108 incorporated into the annual report. The identities of complainants, respondents, witnesses, and others  
1109 involved in the investigations will be protected subject to applicable federal law.

1110  
1111 The report will also include lessons learned during the previous year, input from the annual meeting, and  
1112 recommendations for action/deliberation by the Scientific Integrity Committee during the upcoming fiscal  
1113 year, to ensure continuous improvement in implementation of the Scientific Integrity Policy.

1114  
1115 **Annual Meeting**

1116 The Scientific Integrity Committee will conduct an Agency-wide annual meeting on scientific integrity that  
1117 will include the attendance of the Administrator or Deputy Administrator. The Annual Agency Scientific  
1118 Integrity Meeting will summarize the status of scientific integrity at EPA, accomplishments and challenges,  
1119 and reports from offices and regions, and provide an opportunity for attendees to ask the SIO and Chief  
1120 Scientist questions.

DRAFT - DELIBERATION