



Memorandum

Environment Committee
Lands Committee
Health and Safety Committee
Coal Policy Task Force
Minerals Policy Task Force

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Executive Order on Restoring Gold Standard Science

President Trump recently signed [Executive Order \(EO\) 14303](#), *Restoring Gold Standard Science*, that will change how agencies conduct, evaluate, and issue scientific analyses. The purpose of the EO is to "ensure that federally funded research is transparent, rigorous, and impactful, and that Federal decisions are informed by the most credible, reliable, and impartial scientific evidence available." This memorandum summarizes the main sections of this EO.

Section 1. Policy and Purpose:

The purpose of the EO is to restore and expand on scientific integrity policies from President Trump's first term to ensure that "agencies practice data transparency, acknowledge relevant scientific uncertainties, are transparent about the assumptions and likelihood of scenarios used, approach scientific findings objectively, and communicate scientific data accurately." The EO highlights several examples where "executive departments and agencies have used or promoted scientific information in a highly misleading manner" to justify this policy including: (1) the Centers for Disease Control and Prevention's COVID-19 guidance; (2) the National Marine Fisheries Service's

biological opinion regarding the North Atlantic right whale population; and (3) the Representative Concentration Pathway (RCP) scenario 8.5 that assesses the potential effects of climate change in a "higher" warming scenario, which used a "worst-case scenario based on highly unlikely assumptions like end-of-century coal use exceeding estimates of recoverable coal reserves."

Section 3. Restoring Gold Standard Science:

By **June 23, 2025**, the Director of the Office of Science and Technology Policy (OSTP), in consultation with the heads of relevant agencies, must issue guidance to agencies on implementing "Gold Standard Science" in their conduct and management of their respective scientific activities. The EO defines "Gold Standard Science" to mean "science conducted in a manner that is reproducible, transparent, communicative of error and uncertainty, collaborative and interdisciplinary, skeptical of its findings and assumptions, structured for falsifiability of hypotheses, subject to unbiased peer review, accepting of negative results as positive outcomes, and without conflicts of interest."

Following the publication of this guidance, each agency head must "promptly update applicable agency policies governing the production and use of scientific information, including scientific integrity policies." The EO directs agencies to consult, as appropriate and necessary, with the Director of the Office of Management Budget and the OSTP Director in completing these updates. Agencies have **60 days** after OSTP's guidance is issued to report to the OSTP Director on actions taken to implement the guidance.

Section 4. Improving the Use, Interpretation, and Communication of Scientific Data:

The EO sets forth rules governing the use, interpretation, and communication of scientific data, unless otherwise provided by law. Agencies must adhere to these rules by **June 23, 2025**. Notably, agencies must in a "timely manner and, to the extent practicable and within the agency's authority," make publicly available: (1) "the data, analyses, and conclusions associated with scientific and technological information" that "will have a clear and substantial effect on important public policies or important private sector decisions (influential scientific information), including data cited in

peer-reviewed literature"; and (2) "the models and analyses" used to generate such influential scientific information.

The EO explains that "risk models used to guide agency enforcement actions or select enforcement targets are not information that must be disclosed under this subsection." Certain exemptions also apply for national security, sensitive personal, and confidential information.

Among other things, the EO also directs agencies to document uncertainties, rely on "highly unlikely and overly precautionary assumptions and scenarios" only when required by law, apply a "weight of scientific evidence" approach, not engage in scientific misconduct (e.g., fabrication, falsification, or plagiarism), and use science that comports with legal standards (e.g., when evaluating the realistic or reasonably foreseeable effects of an action).

Section 5. Interim Scientific Integrity Policies:

Prior to the issuance of guidance under Section 3, the EO directs agencies to use the scientific integrity policies that existed within the executive branch on Jan. 19, 2021. The EO requires agencies to retroactively "reevaluate, and where necessary, revise or rescind scientific integrity policies or procedures" issued during the Biden administration. Importantly, agencies are also required to review all regulations, guidance, policies, and scientific evaluations taken during the Biden administration and to revise them consistent with this EO.

Next Steps

The NMA is evaluating our priority policy matters to determine whether this EO can be used to supplement our advocacy strategies. For example, we are collaborating with the Arsenic Science Task Force on its applicability to the Integrated Risk Information System (commonly known as IRIS) and the January 2025 toxicological review of inorganic arsenic that established overly conservative risk values. If your company has additional matters to review under the lens of this EO, please contact me at tbridgeford@nma.org.

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