DOE O 241.1C, Scientific and Technical Information Management
Frequently Asked Questions (FAQs)

The following FAQs were developed and compiled to clarify the intent of certain requirements of DOE O 241.1C and help toward implementation of the Order. Please note these FAQs do not add or eliminate any requirements provided in DOE O 241.1C or other relevant regulations.

1. STI (General)

Q: What is considered STI and is all STI required to be submitted to DOE OSTI?
A: STI are the results of knowledge arising from the research and development (R&D) and/or related activities funded by DOE. STI includes certain product types such as technical reports; scientific/technical conference papers, presentations, posters, or proceedings; journal articles/accepted manuscripts; scientific data; scientific software; books/monographs; thesis/dissertations; and technical workshop reports. Attachment 3 of the Order provides guidance for when STI is to be submitted, and under what circumstances. It should be noted that STI does not include information related to the R&D such as preliminary analyses, drafts of scientific papers, plans for future research, peer reviews, communications with colleagues, laboratory samples, performance (management and oversight), or financial monitoring and reporting.

2. Immediate access to publications

Q: What is meant by "peer-reviewed scholarly publications must be made available without any embargo or delay after publication"?
A: Peer-reviewed journal article accepted manuscripts must be submitted to OSTI, at or before the time of publication, through E-Link following the reporting instructions provided by the award or by following individual site processes for STI submission. See STI Submission Basics. OSTI will make the journal article accepted manuscripts available without delay through OSTI.GOV and DOE PAGES.

An accepted manuscript is the version of the article that has been accepted for publication by a publisher and includes changes made during the peer-review process. It includes the same content as the published version but does not include the publisher's copyediting, stylistic or formatting edits that will constitute the final "version of record" that appears in a scholarly journal; i.e., it is not a "reprint" or a downloaded PDF of the published article. Examples of what an accepted manuscript might look like compared to the published version of the article can be found here.

Q: Will my organization be out of compliance if we submit journal article accepted manuscripts to OSTI after the date of publication?
A: FY25 will serve as a transition year. Accepted manuscripts should be submitted as soon as possible and OSTI will monitor efforts as sites transition from the previous 12-month embargo period to shorter submission timelines.

Q: Will articles published in open access journals meet the requirement since they are immediately accessible upon publication?
A: While publishing open access does make the article freely accessible, the accepted manuscript (or the open access version of record) and its associated metadata must be submitted to OSTI to be considered compliant.

3. Persistent identifiers (PIDs)

Q: What persistent identifier for individuals should be used?
A: A persistent identifier for individuals used by federal and contractor employees must meet the PID definition included in DOE O 241.1C and the common/core standard specified in the NSPM-33 Implementation Guidance. There is currently only one PID for individuals/people that meets these requirements, ORCID iDs. ORCID iDs are PIDs for individuals that allow people to distinguish themselves from others. Individuals can connect their ORCID iDs with professional information (e.g., employment, education, professional activities, funding, and R&D outputs) creating an ORCID record similar to an online CV. This guidance will be updated as additional providers of PIDs for individuals, that meet these requirements, become available.

Q: Who is required to have a persistent identifier for themselves?
A: All federal and contractor employees that conduct R&D work must obtain a PID for themselves. Federal and contractor employees conducting only classified R&D work are not required to have a PID for themselves. Those employees who do not conduct R&D work are also not required to have a PID for themselves.

Q: How must the PID for individuals be used?
A: The PID must be used by federal and contractor employees in published R&D outputs when that option is available. For example, when publishing a journal article – if the journal publisher accepts ORCID iDs with authors, and the employee is an author on the publication, they must provide their ORCID iD. The employee PID/ORCID iD must also be provided to OSTI within STI metadata records provided either by the submitting site or author.

Q: What persistent identifier for R&D outputs/STI should be used?
A: Digital object identifiers (DOIs) are the PID most commonly used and associated with STI. Journal publishers typically assign DOIs to journal articles. Data and software repositories often assign PIDs to those STI records and commonly assign DOIs.

Q: What is the persistent identifier requirement for R&D outputs/STI?
A: PIDs associated with accepted manuscripts, scientific data, technical reports, and scientific software must be provided to OSTI with the metadata record if there is one already assigned to the STI. If a PID for scientific data, technical reports, and scientific software records (that can be made publicly accessible) is not provided, OSTI will assign a DOI to those STI.

4. S&T Risk Matrix

Q: How do I obtain the S&T Risk Matrix?
A: Please go to https://www.energy.gov/science/office-science-laboratory-policy-science-and-security for the non-CUI S&T Risk Matrix. To request the CUI version of the S&T Risk Matrix, please contact the Office of Laboratory Policy at the contact information provided in the above link.

Q: Do you intend that Contractors flow down the CRD requirements to all levels of subcontractors? If so, how does SC propose that S&T Risk Matrix be made available to subcontractors so they can comply?
A: The S&T Risk Matrix should be disseminated to all individuals that have a role to ensuring these requirements are effectively implemented. There is now a non-CUI S&T Risk Matrix that contains only the yellow and green portions and is intended for broad dissemination with the national laboratory complex and university partners.

Q: What responsibilities will the funding DOE Program Office have once notified that the labs intend to publish research results from a Restricted S&T topic?
A: While the funding DOE Program Office does not have an approval role for proposed public release of restricted topics, the notification serves as an awareness function. If there is a concern with the public release of the research, then this triggers a discussion between the funding program office and the national laboratory and may result in mutually agreed mitigations.

Q: Clarity is needed on how the DOE Program Office is notified - does an email from Contractor to DOE Program Manager suffice?
A: DOE will develop guidance for the notification process and that process is expected to be managed by the laboratory, to include coordination with the cognizant DOE site office, and then notification is provided to the leadership of the funding DOE program office for consideration.

Q: Once a Restricted S&T topic is published, it is no longer Restricted - will the S&T Risk Matrix be updated to reflect publication, and Contractors notified?
A: When publication in a restricted topic has occurred, the DOE program office will notify the National Laboratory Chief Research Officer (NLCRO) Group. At that time, the NLCRO will provide a recommendation to DOE on whether the restricted category for the designated research area should continue to have that status. Based on that recommendation, DOE will make a determination on that categorization.

Q: Regarding S&T Risk Matrix notification to program sponsors prior to publication in CRD 5 – what does this look like and what should be included in that notification? Is this an approval process where we must receive the go-ahead from the sponsor and the program office providing stewardship over the laboratory' before publishing?
A: For the non-NNSA laboratories please contact the Office of Laboratory Policy (OLP), Office of Science, which will coordinate these notifications for the Undersecretary of Science and Innovation with the funding program office ensure they are notified of the proposed publication.

If the funding program has concerns with publication of the restricted area, they will work with OLP to discuss the proposed publication with the appropriate laboratory leadership and determine if any mitigations are necessary. For the NNSA laboratories please contact NNSA's Technology and Partnerships Office (NA-10.1) which will coordinate these notifications for the Undersecretary for Nuclear Security and NNSA Administrator and the process will closely follow the one described above. Please note the Department does not have an approval function for proposed publication in restricted research areas.

5. Data Management and Sharing Plans

Q: When will Data Management Plan requirements be replaced by Data Management and Sharing Plan requirements?
A: Each DOE sponsoring research office will continue to ensure that all of its funded research activities have an associated Data Management Plan (DMP), based on the requirements in the 2014 DOE Public Access Plan, through September 30, 2025. Beginning October 1, 2025, each DOE sponsoring research office will ensure that the requirements for a Data Management and Sharing Plan (DMSP), based on the 2023 DOE Public Access Plan, are included in all new solicitations and invitations for research funding with details about how and when a DMSP should be submitted. Sponsoring research offices will have discretion regarding whether DMSP requirements are applied to existing awards.

Q: How will Data Management and Sharing Plan implementation be tracked and measured?
A: Implementation performance measuring will be at the discretion of the sponsoring research program based on the approved Data Management and Sharing Plan (DMSP). All data shared publicly in accordance with an approved DMSP must be reported as research products in accordance with the terms and conditions of the award or contract, which will include reporting public datasets to the Office of Scientific and Technical Information (OSTI) as Scientific and Technical Information (STI).

Q: If a journal article with supplementary data included is reported as an R&D output/STI to DOE OSTI, does providing the journal article count as reporting the data too?
A: Scientific data is required to be shared publicly as described in an approved Data Management Plan (DMP) or Data Management and Sharing Plan (DMSP). A DMSP should specify the use of digital repositories that align, to the extent practicable, with the National Science and Technology Council document entitled "Desirable Characteristics of Data Repositories for Federally Funded Research."

Q: Has DOE established a centralized repository for data?
A: DOE has not established a centralized repository for data. In general, DOE does not endorse or require sharing in any specific repository and encourages researchers to select the repository that is most appropriate for their data type and discipline, though individual sponsoring research offices may provide specific guidance or designate a specific repository.

Q: Will there be guidance for how to develop responsive Data Management and Sharing Plans?
A: DOE currently provides agency-wide guidance for developing Data Management Plans (DMPs) on the DOE Requirements and Guidance for Digital Research Data Management webpage. DOE will update online guidance to reflect the Data Management and Sharing Plan (DMSP) requirements and provide Suggested Elements of a DMSP. Sponsoring research offices may provide additional guidance online or in solicitations or invitations for research funding.

6. STI Training

Q: Who will create the training and how will it be implemented?
A: OSTI will create basic training materials that can be customized as needed by individual sites for their own use. Sites will conduct and monitor the training at their discretion. In addition, OSTI will offer optional virtual training via live webinars or recorded sessions to supplement the training materials that are provided to the sites.

Q: Who has to take the STI training?
A: DOE federal and contractor employees who author, create, manage, or otherwise directly contribute to the production or review of STI, must complete training on appropriate STI management procedures and requirements within twelve months after the STI training becomes available and once every two years thereafter.

Q: May sites use existing materials already developed for STI training?
A: Yes, sites may use existing training materials if they have already been developed. Sites should coordinate with their OSTI STIP Liaison to ensure that training includes the appropriate elements.

7. Legacy STI Reviews

Q: When are secondary reviews of legacy STI required?
A: If a request is received for dissemination of the document, legacy documents previously submitted to OSTI may require a secondary review in order to comply with new or updated document classification requirements. The OSTI Liaison will notify the originating site(s) in these cases. Updated markings should be applied, and the document should be re-submitted to OSTI with the new markings and the appropriate access limitations.

8. R&D (General)

Q: Does R&D include all work that is funded by DOE, e.g., does R&D include demonstration and deployment activities?
A. For purposes of the Order, R&D is defined based on relevant laws and federal-wide policy and guidance that authorize and govern the management of the DOE program that is funding the work. In some cases, the type of work and how it is being funded, e.g., federal financial

assistance, may provide that scope. At a general level, R&D includes basic research, applied research, and/or development activities where new knowledge is acquired, and additional knowledge is gained. For specific examples of what is meant by basic and applied "research" and "development," it may be helpful to see 2 CFR 200.1 and Office of Management and Budget (OMB) Circular A-110 (Uniform Administrative Requirements for Grants and Agreements With Institutions of Higher Education, Hospitals, and Other Non-Profit Organizations) and 48 CFR 35.001, *Research and Development Contracting.* Further, some programs may reference the scope of R&D for how it is budgeted, e.g., using OMB Circular A-11 (Preparation, Submission, and Execution of the Budget). When deciding whether the type of work that is funded or supported by DOE includes or excludes R&D, it is important to refer to the R&D definitions identified by the pertinent laws and/or federal-wide policies and guidance for the sponsoring program and/or procurement instrument.