

SUBJECT: ADMINISTRATIVE CHANGE TO DOE O 241.1B, *SCIENTIFIC AND TECHNICAL INFORMATION MANAGEMENT*

1. **EXPLANATION OF CHANGES.** DOE O 241.1B ensures that DOE scientific and technical information (STI) emanating from DOE-funded work is appropriately managed and made accessible to advance science and technological innovation. STI management requires awareness of numerous laws, executive orders, and directives, especially as guidance evolves in the changing information environment. Updating the legal citations and modifying a word in attachment 2 to one more commonly used as well as a phrase in attachment 4 related to metadata will ensure the directive's currency regarding STI management and public access to federally funded research results.
2. **LOCATIONS OF CHANGES:**

Page	Paragraph	Changed	To
3	4. Requirements g.	DOE-funded STI must include attribution to the sponsoring program. Wording indicating program sponsorship should include DOE, the DOE program office and that program office's subprogram(s) funding the research. Examples include: DOE Office of Science (SC), Office of Basic Energy Sciences (BES); DOE Office of Energy Efficiency and Renewable Energy (EERE), Solar Energy Technologies Program; DOE Office of Environmental Management (EM), Office of Technology Innovation and Development; DOE Office of Nuclear Energy (NE), Fuel Cycle Research and Development Program; DOE Office of Fossil Energy (FE), Office of Clean Energy Systems; or National Nuclear Security Administration (NA).	DOE-funded STI must include attribution to the sponsoring program. Wording indicating program sponsorship should include DOE, the DOE program office and that program office's subprogram(s) funding the research. Examples include: USDOE Office of Science (SC), Basic Energy Sciences (BES); USDOE Office of Energy Efficiency and Renewable Energy (EERE), Solar Energy Technologies Office; USDOE Office of Environmental Management (EM), Office of Acquisition and Project Management; USDOE Office of Nuclear Energy (NE), Fuel Cycle Technologies; USDOE Office of Fossil Energy (FE), Clean Coal and Carbon; or US DOE National Nuclear Security Administration (NA), Office of Defense Programs.

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7	7. REFERENCES e.	Title XXXII, National Nuclear Security Administration Act, as Amended, P.L. 106-65, establishes a separately organized agency within the Department of Energy in 2000.	Title XXXII, National Nuclear Security Administration Act, as Amended, P.L. 106-65, establishes a separately organized agency within the Department of Energy in 2000 (50 U.S.C. Chap. 41).
8	7. REFERENCES n.	DOE O 413.2B, <i>Laboratory Directed Research and Development</i> , dated 4-19-06, https://www.directives.doe.gov/directives/current-directives/413.2-BOrder-b/view .	DOE O 413.2C, <i>Laboratory Directed Research and Development</i> , dated 10-22-15, https://www.directives.doe.gov/directives-documents/400-series/0413.2-BOrder-C .
8	7. REFERENCES p.	DOE M 457.1-1, <i>Control of Improvised Nuclear Device Information</i> , dated 8-10-06, https://www.directives.doe.gov/directives/current-directives/457.1-DManual-1/view .	DOE O 457.1A, <i>Nuclear Counterterrorism</i> , dated 8-26-13, https://www.directives.doe.gov/directives-documents/400-series/0457.1-BOrder-A . (Manual was cancelled, replaced with order)
8	7. REFERENCES q.	DOE M 470.4-4A, <i>Information Security Manual</i> , dated 1-16-09, https://www.directives.doe.gov/directives/current-directives/470.4-DManual-4a/view .	DOE O 471.6 Admin Chg 2, <i>Information Security</i> , dated 6-29-11, https://www.directives.doe.gov/directives-documents/400-series/0471.6-BOrder-admchg2 . (Deleted manual and inserted order.)
8	7. REFERENCES s.	DOE O 471.3, <i>Identifying and Protecting Official Use Only Information</i> , dated 4-9-03, https://www.directives.doe.gov/directives/restrict/471.3-BOrder/view .	DOE O 471.3 Admin Chg 1, <i>Identifying and Protecting Official Use Only Information</i> , dated 4-9-03, https://www.directives.doe.gov/directives-documents/400-series/0471.3-BOrder-admchg1 .

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8	7. REFERENCES t.	DOE M 471.3-1, <i>Manual for Identifying and Protecting Official Use Only Information</i> , dated 4-9-03, https://www.directives.doe.gov/directives/current-directives/471.3-DManual-1/view .	DOE M 471.3-1 Admin Chg 1, <i>Manual for Identifying and Protecting Official Use Only Information</i> , dated 4-9-03, https://www.directives.doe.gov/directives-documents/400-series/0471.3-DManual-1-admchg1 .
9	7. REFERENCES u.	DOE O 475.2, <i>Identifying Classified Information</i> , dated 8-28-07, https://www.directives.doe.gov/directives/restrict/475.2-BOrder/view .	DOE O 475.2B, <i>Identifying Classified Information</i> , dated 10-03-14, https://www.directives.doe.gov/directives-documents/400-series/0475.2-BOrder-b .
9	7. REFERENCES v.	DOE O 481.1C, <i>Work for Others (Non-Department of Energy Funded Work)</i> , dated 1-24-05, https://www.directives.doe.gov/directives/current-directives/481.1-BOrder-c/view	DOE O 481.1C Admin Chg 2, <i>Strategic Partnership Projects [Formerly Known as Work for Others (Non-Department of Energy Funded Work)]</i> , dated 1-24-05, https://www.directives.doe.gov/directives-documents/400-series/0481.1-BOrder-c-admchg2 .
9	7. REFERENCES w.	DOE O 483.1, <i>DOE Cooperative Research and Development Agreements</i> , dated 1-12-01, https://www.directives.doe.gov/directives/current-directives/483.1-BOrder/view	DOE O 483.1A, <i>DOE Cooperative Research and Development Agreements</i> , dated 11-06-13, https://www.directives.doe.gov/directives-documents/400-series/0483.1-BOrder-A
10	7. REFERENCES x.	DOE M 483.1-1, <i>DOE Cooperative Research and Development Agreements Manual</i> , dated 1-12-01, https://www.directives.doe.gov/directives/current-directives/483.1-DManual-1/view .	Deleted (manual has been cancelled) and renumbered references

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10	7. REFERENCES y. now x.	DOE O 484.1, <i>Reimbursable Work for the Department of Homeland Security</i> , dated 8-17-06, https://www.directives.doe.gov/directives/current-directives/484.1-BOrder/view .	DOE O 484.1 Admin Chg 2, <i>Reimbursable Work for the Department of Homeland Security</i> , dated 8-17-06, https://www.directives.doe.gov/directives-documents/400-series/0484.1-BOrder-admchg2 .
10	7. REFERENCES z. now y.	DOE O 5610.2, Chg 1, <i>Control of Weapon Data</i> , dated 9-2-86, https://www.directives.doe.gov/directives/current-directives/5610.2-BOrder/view .	DOE O 452.8, <i>Control of Nuclear Weapon Data</i> , dated 7-21-11, https://www.directives.doe.gov/directives-documents/400-series/0452.8-BOrder
10	7. REFERENCES z.		DOE Acquisition Guide, Chapter 3.3, Compliance with U. S. Export Control Laws, Regulations, and Policies, http://www.energy.gov/sites/prod/files/3.3_Compliance_with_US_Export_Controls_Laws%2C_Regulations%2C_and_Policies.pdf (added)
10	7. REFERENCES ee.		Research and Development (R&D) Technical Report Files (Scientific and Technical Information), N1-434-06-1. http://www.archives.gov/records/mgmt/rcs/schedules/departments/departments-of-energy/rg-0434/n1-434-06-001_sf115.pdf . (added reference and renumbered items)
10	7. REFERENCES ee. now ff.	DOE Open Government Plan, dated June 2010, Version 1.2, http://www.energy.gov/open/documents/FINAL_DOE_OGPVer1-2b_07July2010.pdf .	DOE Open Government Plan, Versions 1.0, 2.0 and 3.0, dated July 2010 - June 2014, http://www.energy.gov/open-government .

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10	7. REFERENCES gg. now hh.	Classified National Security Information, Executive Order 13526 (32 CFR Parts 2001 and 2003), http://www.whitehouse.gov/the-press-office/executive-order-classified-national-security-information .	Classified National Security Information, Executive Order 13526 (32 CFR Part 2001), http://www.whitehouse.gov/the-press-office/executive-order-classified-national-security-information .
10	7. REFERENCES ii.		Executive Office of the President, Office of Science and Technology Policy, memorandum for the Heads of Executive Departments and Agencies, Subject: Increasing Access to the Results of Federally Funded Scientific Research, February 22, 2013, https://www.whitehouse.gov/sites/default/files/microsites/ostp/ostp_public_access_memo_2013.pdf . (added)
10	7. REFERENCES jj.		DOE Public Access Plan, dated July 24, 2014, http://energy.gov/sites/prod/files/2014/08/f18/DOE_Public_Access_Plan_FINAL.pdf . (added)
	7. REFERENCES kk.		Secretarial Memo from Ernest J. Moniz for Heads of Departmental Elements, National Laboratory Directors, DOE Technology Center Directors, Subject: Public Access to the Results of DOE-Funded Scientific Research, September 4, 2014, https://www.directives.doe.gov/other_requirements/public-access-to-the-results-of-doe-funded-scientific-research (added)

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10	8. CONTACT	Questions concerning this Order should be addressed to the Office of Scientific and Technical Information at 865-576-1194.	Questions concerning this Order should be addressed to the Office of Scientific and Technical Information at stip@osti.gov.
Att. 3, Page 1	STI PRODUCTS (table)	Journal articles: Author's manuscript	Journal articles: Accepted manuscript
Att. 4, Pg 1	Required Metadata Elements table	Additional metadata for classified STI: <ul style="list-style-type: none">• Accountable STI Product (Y/N)	Additional metadata unique to classified STI

ORDER

DOE O 241.1B

Approved: 12-13-2010
Chg 1 (Admin Chg):4-26-2016

SCIENTIFIC AND TECHNICAL INFORMATION MANAGEMENT



U.S. DEPARTMENT OF ENERGY
Office of Scientific and Technical Information

SCIENTIFIC AND TECHNICAL INFORMATION MANAGEMENT

1. PURPOSE. The U.S. Department of Energy (DOE) produces scientific and technical information (STI) in the course of performing research and development (R&D) and other science and technology activities. The purpose of this directive is to ensure that STI is appropriately managed as part of the DOE mission to enable the advancement of scientific knowledge and technological innovation. Therefore, the objectives of this order are to:
 - a. establish DOE requirements and responsibilities to ensure that Departmental STI is appropriately identified, disseminated, preserved, and accessible to policy makers, the scientific community, and the public within the boundaries of laws, regulations, Executive orders, other DOE requirements, and program needs and resources; and
 - b. provide high-level requirements for safeguarding classified, Unclassified Controlled Nuclear Information (UCNI), and controlled unclassified information (CUI) in order to protect STI when mandated by laws, regulations, Executive orders, and other DOE requirements.
2. CANCELLATION. DOE O 241.1A, *Scientific and Technical Information Management*, dated 4-9-01. Cancellation of an order does not, by itself, modify or otherwise affect any contractual obligation to comply with the order. Contractor Requirements Documents (CRDs) and/or other requirements that have been incorporated into a contract remain in effect throughout the term of the contract unless and until the contract is modified to either eliminate requirements that are no longer applicable or substitute a new set of requirements.
3. APPLICABILITY.
 - a. Departmental Applicability. This Order applies to all Departmental elements, at Headquarters and the field, that either fund projects that generate STI or oversee the contractors for facilities where work is done which could generate STI.

The Administrator of the National Nuclear Security Administration (NNSA) must assure that NNSA employees comply with their responsibilities under this directive. Nothing in this directive will be construed to interfere with the NNSA Administrator's authority under section 3212(d) of Public Law (P.L.) 106-65 to establish Administration-specific policies, unless disapproved by the Secretary.
 - b. DOE Contractors. Except for the equivalencies/exemptions in paragraph 3.c., the Contractor Requirements Document (CRD) or the statement of work sets forth requirements of this Order which will apply to contracts that include either the CRD or these requirements as part of the statement of work.

The CRD, Attachment 1, must be included in all contracts for the management and operation (M&O) of DOE-owned or -leased facilities and in site/facility

management contracts that require or involve performance of tasks and activities that generate or could generate STI in connection with the performance of DOE-funded projects or work performed at a DOE-owned or -leased facility.

For all contracts other than M&O or site/facility management contracts, including R&D contracts, which require or involve performance of tasks and activities that generate or could generate STI in connection with the performance of DOE-funded projects, the statement of work must include the applicable requirements set forth in the CRD.

c. Equivalencies/Exemptions for DOE O 241.1B.

- (1) Equivalency. In accordance with the responsibilities and authorities assigned by Executive Order 12344, codified at Title 50 United States Code (U.S.C.) sections 2406 and 2511 and to ensure consistency through the joint Navy/DOE Naval Nuclear Propulsion Program, the Deputy Administrator for Naval Reactors (Director) will implement and oversee requirements and practices pertaining to this Directive for activities under the Director's cognizance, as deemed appropriate.
- (2) Exemption. In accordance with the Delegation of Authority 00-033.00B, BPA is exempt from this Order.

4. REQUIREMENTS. This Order applies to STI that contains findings, analyses, or results related to R&D or other scientific and technological endeavors; is generated by work funded by DOE or performed at DOE facilities; and is deemed by the originator to be useful beyond the originating organization, i.e., intended to be published or disseminated (see Attachment 2, Definitions). Transparency and accessibility of STI support the continued advancement of a sound science and technology base to help guide and inform the nation's critical public policy decisions; advance the national, economic, and energy security of the U.S.; facilitate the accomplishment of DOE mission objectives; and maximize the public value of such efforts. STI is produced in various media - e.g., textual, audiovisual, multimedia, and digital - and is disseminated as technical reports; conference papers and presentations; journal articles; theses and dissertations; patents; scientific and technical software; *etc.* The majority of DOE-funded STI is publicly releasable, with a small percentage requiring restricted access.

- a. STI must be emphasized as a key outcome and record of the work conducted so that STI is planned, budgeted, produced, disseminated, and preserved.
- b. To fulfill Departmental statutory requirements, STI (as defined in Attachment 2) must be made available by announcing and/or providing various types of STI in acceptable electronic formats to DOE's central coordinating office, the Office of Scientific and Technical Information (OSTI, www.osti.gov) for subsequent announcement, availability, and preservation, including STI identified in records prior to project, program, or site closures. (See Attachment 3, STI Products Made Available Through DOE STI Program.)

- c. STI must be reviewed for public release as appropriate. STI that is potentially classified must be reviewed for classification. STI that is potentially controlled unclassified information (CUI) (e.g., nonproliferation, national security, export control, intellectual property, or protected Personally Identifiable Information and privacy) must be reviewed to identify such information. STI that contains either classified, Unclassified Controlled Nuclear Information (UCNI), or CUI must be marked in accordance with Departmental directives. Prior to providing the STI to OSTI, an STI Releasing Official must ensure that appropriate announcement and availability restrictions have been applied in accordance with statutory, regulatory, Executive order, and/or other Departmental requirements.
- d. Headquarters and field elements must appoint a formal STI point of contact (e.g., a Technical Information Officer) to coordinate STI with OSTI, to participate in DOE's Scientific and Technical Information Program (STIP), and to serve as or designate an STI Releasing Official(s).
- e. Headquarters elements, including NNSA, that either fund research or set policies affecting STI must delegate a senior official to address STI policy issues as needed.
- f. Prior to dissemination, STI must be clearly marked to distinguish information being published by the agency which represents an official DOE position from information resulting from DOE-funded R&D or related activities.
- g. DOE-funded STI must include attribution to the sponsoring program. Wording indicating program sponsorship should include DOE, the DOE program office and that program office's subprogram(s) funding the research. Examples include: USDOE Office of Science (SC), Basic Energy Sciences (BES); USDOE Office of Energy Efficiency and Renewable Energy (EERE), Solar Energy Technologies Office; USDOE Office of Environmental Management (EM), Office of Acquisition and Project Management; USDOE Office of Nuclear Energy (NE), Fuel Cycle Technologies; USDOE Office of Fossil Energy (FE), Clean Coal and Carbon; or US DOE National Nuclear Security Administration (NA), Office of Defense Programs.

5. RESPONSIBILITIES.

- a. Director, Office of Science.
 - (1) Provides overall leadership and policy direction for DOE STI management as required by Federal laws, regulations, Executive orders, and other DOE requirements.
 - (2) Ensures that DOE's STI Program is carried out consistent with DOE mission and legal requirements.
- b. Director, Office of Scientific and Technical Information (OSTI), within the Office of Science.

- (1) Works to ensure appropriate transparency of and access to DOE's STI and to preserve a permanent DOE STI repository.
- (2) Leads the Department's Scientific and Technical Information Program (STIP), which includes designated STI points of contact representing Departmental elements (Headquarters and field) and site/facility management contractors who work collaboratively to achieve DOE requirements for the management of STI and to address specific programmatic or cross-cutting STI management issues.
- (3) In collaboration with stakeholders, establishes STI requirements and responsibilities to ensure optimal availability of Departmental STI to the varied customer segments, within applicable laws, regulations, Executive orders, and other Departmental requirements.
- (4) Makes DOE-funded STI searchable by maintaining information management systems and providing a suite of web products and services for publicly releasable STI (see www.osti.gov) and systems to provide access to protected categories of STI as appropriate.
- (5) Manages domestic, interagency, and international STI exchanges to ensure DOE access to national and global scientific and technical advances and to enable global access to DOE STI.
- (6) Supports program-specific STI management efforts by offering special support services upon request to DOE organizations that provide funding to cover incremental costs of the requested service(s).

c. Heads of Departmental Elements at Headquarters, including NNSA.

- (1) Ensure that the objectives and requirements of this Order are incorporated into their program planning, management, contract administration, oversight, and performance-based management activities.
- (2) Ensure that program-issued documents or other types of STI (see Attachment 3) are appropriately reviewed and released and made available in acceptable electronic formats to OSTI, with corresponding Announcement Notices (ANs) (see Attachment 4, DOE Announcement Notices and STI Metadata Elements).
- (3) Instruct initiators of procurement requests for M&O and site/facility management contracts to specify whether the CRD for this Order applies in the award resulting from the procurement request and any special instructions for applying the CRD.
- (4) Instruct initiators of procurement requests for R&D or other contracts not covered under c.(3) above to specify the required scientific and technical deliverables, the form of delivery, and the requirement for the accompanying AN (i.e., "Announcement of DOE Scientific and Technical

- (5) Information”) in the statement of work or any special instructions for applying the CRD.
 - (6) Instruct initiators of procurement requests for financial assistance instruments to specify the required scientific and technical deliverables, the form of delivery, and the requirement for the accompanying AN (i.e., “Announcement of DOE Scientific and Technical Information”) within the award terms and/or on the Federal Assistance Reporting Checklist.
 - (7) Designate senior officials to address STI policy issues as needed.
 - (8) For programs that fund projects that generate STI or staff offices that affect STI policies, appoint and officially inform OSTI of the formal STI points of contact (i.e., Technical Information Officer) to participate in the Department’s Scientific and Technical Information Program (STIP), coordinate STI management activities, and serve as or designate an STI Releasing Official(s).
- d. Heads of Departmental Elements in the Field, including NNSA Site Office Managers.
- (1) Ensure that the objectives and requirements of this Order are incorporated into their contract administration, oversight, and performance-based management activities.
 - (2) Appoint and officially inform OSTI of formal STI points of contact (i.e., Technical Information Officer) to participate in the Department’s Scientific and Technical Information Program (STIP) and serve as or designate an STI Releasing Official(s).
- e. Technical Information Officers.
- (1) Serve as the DOE element representatives to STIP and ensure that STI objectives and requirements are incorporated into strategic planning, management information plans, life-cycle procedures from project initiation to close-out, and contract language as appropriate.
 - (2) Coordinate with contractor STI managers and have adequate familiarity with STI activities to discern contractor compliance with the CRD portion of this directive.
 - (3) Coordinate the implementation of appropriate review and release procedures by DOE elements, DOE contractors, and financial assistance recipients as appropriate.
 - (4) Serve as Releasing Officials or coordinate designation and official notification to OSTI of Releasing Official(s), to ensure that DOE office or financial assistance-generated STI and ANs are appropriately reviewed and appropriate markings applied prior to release to OSTI or Web posting.

- (5) Make available to OSTI the STI as defined in Attachment 2 and ANs for each STI item, after ensuring that such STI has undergone appropriate institutional review. See Attachment 3 for STI products announced and/or provided to OSTI and Attachment 4 for ANs and required metadata.
- (6) Through STIP, participate in policy development and implementation, ensure that local implementation procedures put in place by DOE and DOE contractors are consistent with requirements herein, and be knowledgeable of STI Program best practices (see www.osti.gov/stip) in order to implement appropriate local procedures.

f. Directors of DOE and NNSA Offices of Procurement and Assistance Management.

- (1) Issue guidance on including performance objectives and measures for STI in performance-based M&O, site/facility management, and R&D contracts.
- (2) Issue guidance for financial assistance awards that addresses the identification and delivery of STI products.

g. Heads of Contracting Activities.

- (1) Ensure that the CRD for this Order, when instructed by the initiators of procurement requests, is applied to existing M&O contracts for DOE-owned or -leased facilities, in site/facility management contracts to the extent set forth in the contract, and to relevant new major site/facility management contracts.
- (2) Ensure that applicable requirements regarding required scientific and technical deliverables, the form of delivery, and the requirements for the accompanying AN are included in the statements of work for R&D or other contracts not covered by g.(1) above, upon identification of such requirements by the initiators of the procurement request.
- (3) Ensure that performance measures for STI management are included in performance-based contracts, as appropriate.
- (4) Ensure that contractors and financial assistance recipients under their cognizance complete the AN and the scientific and technical deliverables specified in the award are provided to OSTI.

6. DEFINITIONS. See Attachment 2.

7. REFERENCES. The following selected statutory references provide authority for the Department's scientific and technical information management program.

- a. Atomic Energy Act of 1954, as Amended, Public Law (P.L.) 83-703, establishes a program for the dissemination of unclassified scientific and technical information

and for the control, dissemination, and declassification of Restricted Data, subject to appropriate safeguards, so as to encourage scientific and industrial progress (42 U.S.C. Sec. 2013, 2051, and 2161).

- b. Freedom of Information Act, P.L. 89-487, provides for public access to Federal agency records, which would include records containing scientific and technical information created with Federal funding (5 U.S.C. 552 et seq.).
- c. Energy Reorganization Act of 1974, P.L. 93-438, provides responsibilities for developing, collecting, distributing, and making scientific and technical information available for distribution (42 U.S.C. Sec. 2161, 5813, 5817).
- d. Department of Energy Organization Act of 1977, P.L. 95-91, provides for maintaining a central source of information and disseminating information (42 U.S.C. Sec. 5916, 7112).
- e. Title XXXII, National Nuclear Security Administration Act, as Amended, P.L. 106-65, establishes a separately organized agency within the Department of Energy in 2000 (50 U.S.C. Chap 41).
- f. Energy Policy Act of 2005, P.L. 109-58, Section 982, “The Secretary, through the Office of Scientific and Technical Information, shall maintain with the Department publicly available collections of scientific and technical information resulting from research, development, demonstration, and commercial applications activities supported by the Department.”
- g. America COMPETES Act of 2007, P.L. 110-69, Section 1009, calls for Federal agencies that conduct scientific research to develop agency specific policies and procedures regarding the public release of data and results of research.
- h. Presidential Memorandum for the Heads of Executive Departments and Agencies, Subject: Transparency and Open Government, January 21, 2009, http://www.whitehouse.gov/the_press_office/Transparency_and_Open_Government/.
- i. Presidential Memorandum for the Heads of Executive Departments and Agencies, Subject: Scientific Integrity, March 9, 2009, http://www.whitehouse.gov/the_press_office/Memorandum-for-the-Heads-of-Executive-Departments-and-Agencies-3-9-09/.
- j. Presidential Memorandum for the Heads of Executive Departments and Agencies, Subject: Open Government Directive, December 8, 2009, http://www.whitehouse.gov/omb/assets/memoranda_2010/m10-06.pdf.
- k. DOE O 200.1A, *Information Technology Management*, dated 12-23-08, <https://www.directives.doe.gov/directives/current-directives/200.1-BOrder-a/view>.
- l. DOE O 206.1, *Department of Energy Privacy Program*, dated 1-16-09, <https://www.directives.doe.gov/directives/current-directives/206.1-BOrder/view>.

- m. DOE O 412.1A, *Work Authorization System*, dated 4-21-05, <https://www.directives.doe.gov/directives/current-directives/412.1-BOrder-a/view>.
- n. DOE O 413.2C, *Laboratory Directed Research and Development*, dated 10-22-15, <https://www.directives.doe.gov/directives-documents/400-series/0413.2-BOrder-C>.
- o. DOE O 452.7, *Protection of Use Control Vulnerabilities and Designs*, dated 5-14-10, <https://www.directives.doe.gov/directives/current-directives/452.7-BOrder/view>.
- p. DOE O 457.1A, *Nuclear Counterterrorism*, dated 8-26-13, <https://www.directives.doe.gov/directives-documents/400-series/0457.1-BOrder-A>.
- q. DOE O 471.6 Admin Chg 2, *Information Security*, dated 6-29-11, <https://www.directives.doe.gov/directives-documents/400-series/0471.6-BOrder-adminchg2>.
- r. DOE O 471.1B, *Identification and Protection of Unclassified Controlled Nuclear Information*, dated 3-01-10, <https://www.directives.doe.gov/directives/current-directives/471.1-BOrder-b/view>.
- s. DOE O 471.3 Admin Chg 1, *Identifying and Protecting Official Use Only Information*, dated 4-9-03, <https://www.directives.doe.gov/directives-documents/400-series/0471.3-BOrder-admchg1>.
- t. DOE M 471.3-1 Admin Chg 1, *Manual for Identifying and Protecting Official Use Only Information*, dated 4-9-03, <https://www.directives.doe.gov/directives-documents/400-series/0471.3-DManual-1-adminchg1>.
- u. DOE O 475.2B, *Identifying Classified Information*, dated 10-03-14, <https://www.directives.doe.gov/directives-documents/400-series/0475.2-BOrder-b>.
- v. DOE O 481.1C Adm Chg 2, *Strategic Partnership Projects [Formerly Known as Work for Others (Non-Department of Energy Funded Work)]*, dated 1-24-05, <https://www.directives.doe.gov/directives-documents/400-series/0481.1-BOrder-c-admchg2>.
- w. DOE O 483.1A, *DOE Cooperative Research and Development Agreements*, dated 11-06-13, <https://www.directives.doe.gov/directives-documents/400-series/0483.1-BOrder-A>.
- x. DOE O 484.1 Admin Chg 2, *Reimbursable Work for the Department of Homeland Security*, dated 8-17-06, <https://www.directives.doe.gov/directives-documents/400-series/0484.1-BOrder-admchg2>.

- y. DOE O 452.8, *Control of Nuclear Weapon Data*, dated 7-21-11, <https://www.directives.doe.gov/directives-documents/400-series/0452.8-BOrder>.
- z. DOE Acquisition Guide, Chapter 3.3, Compliance with U. S. Export Control Laws, Regulations, and Policies, http://www.energy.gov/sites/prod/files/3.3_Compliance_with_US_Export_Controls_Laws%2C_Regulations%2C_and_Policies.pdf.
- aa. DOE Acquisition Guide, Chapter 35.1, Scientific and Technical Reporting, http://www.management.energy.gov/policy_guidance/1354.htm.
- bb. DOE Acquisition Guide, Chapter 42.4, Contract Closeout, <http://www.management.energy.gov/documents/42pt4ContractCloseOut.pdf>.
- cc. DOE Guide to Financial Assistance, <http://management.energy.gov/documents/GuidetoFinancialAssistance.pdf>.
- dd. Department of Energy Research and Development Records Schedule, N1-434-96-9, N1-434-07-01, and N1-434-08-02, Revision 2, June 2008; Appendix A, http://cio.energy.gov/documents/RD_revised.pdf.
- ee. Research and Development (R&D) Technical Report Files (Scientific and Technical Information), N1-434-06-1. http://www.archives.gov/records-mgmt/rcs/schedules/departments/departments-of-energy/rg-0434/n1-434-06-001_sf115.pdf.
- ff. DOE Open Government Plan, Versions 1.0, 2.0 and 3.0, dated July 2010 - June 2014, <http://www.energy.gov/open-government>.
- gg. Identification and Protection of Unclassified Controlled Nuclear Information (10 CFR Part 1017), which establishes policies and procedures for the identification and protection of UCNI. http://www.access.gpo.gov/nara/cfr/waisidx_09/10cfr1017_09.html
- hh. Classified National Security Information, Executive Order 13526 (32 CFR Part 2001), <http://www.whitehouse.gov/the-press-office/executive-order-classified-national-security-information>.
- ii. Executive Office of the President, Office of Science and Technology Policy, memorandum for the Heads of Executive Departments and Agencies, Subject: Increasing Access to the Results of Federally Funded Scientific Research, February 22, 2013, https://www.whitehouse.gov/sites/default/files/microsites/ostp/ostp_public_access_memo_2013.pdf.

- jj. DOE Public Access Plan, dated July 24, 2014, http://energy.gov/sites/prod/files/2014/08/fl8/DOE_Public_Access_Plan_FINAL.pdf.
 - kk. Secretarial Memo from Ernest J. Moniz for Heads of Departmental Elements, National Laboratory Directors, DOE Technology Center Directors, Subject: Public Access to the Results of DOE-Funded Scientific Research, September 4, 2014, https://www.directives.doe.gov/other_requirements/public-access-to-the-results-of-doe-funded-scientific-research
8. CONTACT. Questions concerning this Order should be addressed to the Office of Scientific and Technical Information at stip@osti.gov.

BY ORDER OF THE SECRETARY OF ENERGY:



DANIEL B. PONEMAN
Deputy Secretary

CONTRACTOR REQUIREMENTS DOCUMENT (CRD)
DOE O 241.1B, *SCIENTIFIC AND TECHNICAL INFORMATION MANAGEMENT*

Regardless of the performer of the work, the contractor is responsible for complying with the requirements of this CRD. The contractor is responsible for flowing down the requirements of this CRD to subcontractors at any tier to the extent necessary to ensure the contractor's compliance with the requirements. In addition to the requirements set forth in this CRD, contractors are responsible for complying with Attachments 2, 3, and 4 to DOE O 241.1B referenced in and made a part of this CRD and which provide program requirements and/or information applicable to contracts in which this CRD is inserted.

In the performance of Department of Energy (DOE) contracted obligations, each contractor is required to manage scientific and technical information (STI) produced under the contract as a direct and integral part of the work and ensure its broad availability to all customer segments by making STI available to DOE's central STI coordinating office, the Office of Scientific and Technical Information (OSTI).

Attachment 2 includes a definition of STI and other terms used in this CRD. Such STI products include STI funded by DOE, resulting from work performed at a DOE facility, or developed under Work for Others (unless specifically excluded in the agreement under which the work is done) or Cooperative Research and Development Agreements. STI produced at DOE scientific user facilities, but not funded by DOE, may be made available to OSTI, consistent with user agreements. Submissions of such STI products are made at the discretion of the laboratory hosting the facility.

Contractors must accomplish the following:

1. Appoint and officially inform the DOE Office of Scientific and Technical Information (OSTI) of the STI point of contact who will represent their organization in the Department's STI Program (STIP) and serve as the STI Releasing Official or designate Releasing Official(s) responsible for ensuring that all STI and Announcement Notices (ANs) are appropriately reviewed and marked accordingly prior to announcement and/or submission to OSTI.
2. Implement a site program to identify, prioritize, and make available to DOE OSTI those STI products that the originating site deems useful beyond its boundaries (e.g., STI products that are project deliverables and are intended for publication or dissemination), whether the STI is publicly releasable, controlled unclassified information, or classified, after those products have undergone appropriate institutional review in accordance with statutory, regulatory, Executive order, and/or Departmental requirements. Attachment 3 provides a list of STI products for which submission and/or announcement procedures have been defined by OSTI and the STI Program. Specifically:
 - a. Provide OSTI an electronic AN for each STI product. Attachment 4 provides a list of available ANs for use and the metadata elements required for each AN.

- b. Ensure that each STI product is in an electronic format suitable for automated indexing systems. Refer to www.osti.gov/stip for electronic format options.
 - c. Ensure that each STI product is either submitted to OSTI or, if publicly releasable and posted at a website, that the AN provides the unique persistent identifier for the corresponding STI item or provides other availability information.
- 3. Review STI generated under the contract to determine appropriate release and handling and apply any necessary statutory or program-driven announcement and/or availability restrictions, including those related to nonproliferation, national security, export control, intellectual property, protected Personally Identifiable Information and privacy. In addition, apply to the STI product any restrictive markings required, include any required legal disclaimers, and, for STI products resulting from DOE-funded work, identify the sponsor as follows: U.S. Department of Energy, [name of DOE program office], [name of DOE subprogram].
- 4. Inform OSTI when STI previously announced or submitted to OSTI has been modified, such as changes to access limitations or content corrections. Also, when permanently removing STI from a website for which a persistent link was provided to OSTI, inform OSTI in order to ensure continued appropriate availability and preservation by DOE.
- 5. In implementing a site STI program, refer to best practices and National Archives and Records Administration (NARA)-approved DOE programmatic records schedules, such as Department of Energy Research and Development Records Schedule, N1-434-96-9, N1-434-07-01, and N1-434-08-02, Revision 2, June 2008. This schedule includes Appendix A, R&D Technical Reports or Other Forms of STI Submitted to the Office of Scientific and Technical Information (OSTI).
(http://www.cio.energy.gov/documents/rd_revised.pdf).

NOTE: The DOE STI Program website (www.osti.gov/stip) provides information to assist in implementing the requirements of this Contractor Requirements Document. The website includes instructions and examples based on best practices that are developed in coordination with the DOE and contractor STI community

DEFINITIONS

This Attachment provides definitions associated with DOE O 241.1B and applicable to contracts in which the associated CRD (Attachment 1 to DOE O 241.1B) is inserted.

1. Announcement Notice (AN). A set of metadata defined for a specific type of STI for use in describing an STI product for announcement and availability. (See Attachment 4, DOE Announcement Notices and STI Metadata Elements.) The AN is transmitted electronically to OSTI for STI products and includes review and release information, enabling announcement and searchable online access as appropriate.
2. Controlled Unclassified Information (CUI). Certain unclassified information requiring safeguarding and dissemination controls mandated by statute or policy. Examples of such information within DOE include Official Use Only (OUO), Export Controlled Information (ECI), Unclassified Controlled Nuclear Information (UCNI), unclassified Naval Nuclear Propulsion Information (U-NNPI), and protected Personally Identifiable Information (PII). Within DOE other terms have been used, such as Unclassified Controlled Information (UCI) and Sensitive Unclassified Information (SUI), to refer to information that warrants protection as CUI. (Note: Current Government-wide efforts are under way to standardize CUI markings. Refer to www.osti.gov/stip, which will be updated for most current information.)
3. Departmental Element. A first-tier organization at Headquarters and in the field. First-tier at Headquarters encompasses heads of the major Headquarters line programs, e.g., Program Secretarial Officers. First-level field element refers to first-level organizations located outside the Washington Metropolitan area and encompasses Operations Offices, Site Offices, Field Offices, and Regional Offices. Additional information is noted in the Correspondence Style Guide as directed by the Office of the Executive Secretariat, http://www.management.energy.gov/documents/ES_Style_Guide_2007.pdf.
4. Metadata. Data that describe the attributes of a document or other type of STI product, used for announcement and retrieval. In addition to basic descriptive bibliographic information such as title, author, publication date, research performer or originating site, a minimum set of metadata fields is required to facilitate identification and ensure appropriate announcement, such as access restrictions or release authorization. Additional optional metadata fields are used to optimize retrieval via web-based products.
5. Releasing Official. An individual designated with responsibility for ensuring that STI has undergone appropriate reviews, that subsequent recommendation to OSTI is made via established systems regarding release of STI in the public domain (i.e., unlimited announcement) or restricted access, and that DOE-approved access limitations, availability restrictions and legal disclaimers have been applied as appropriate, as well as ensuring compliance with other statutory, regulatory, Executive order, and/or other Departmental requirements. The Releasing Official is either a Federal employee responsible for Federally produced or assistance awardees' STI or is a major facility contractor responsible for their STI.

6. Scientific and Technical Information. Information products deemed by the originator to be useful beyond the originating site (i.e., intended to be published or disseminated), in any format or medium, which contain findings and technological innovations resulting from research and development (R&D) efforts and scientific and technological work of scientists, researchers, and engineers, whether Federal employee, contractor, or financial assistance recipient. STI also conveys the results of demonstration and commercial application activities as well as experiments, observations, simulations, studies, and analyses.

Scientific findings are communicated through various media – e.g., textual, multimedia, audiovisual, and digital - and are produced in a range of products such as technical reports, scientific/technical conference papers and presentations, theses and dissertations, scientific and technical computer software, journal articles, workshop reports, program documents, patents, publicly available scientific research datasets, or other forms of STI. (See Attachment 3, STI Product Types Made Available Through DOE STI Program.) STI may be classified, Unclassified Controlled Nuclear Information (UCNI), controlled unclassified information (CUI), or unclassified with no access restrictions. DOE-funded STI originates primarily from research and other activities performed by site/facility management contractors, direct DOE-executed prime procurements, DOE-operated research activities, and financial assistance recipients, in addition to DOE employees.

Definitions for other STI management terms and acronyms used in this Order can be found on the STI Program website, www.osti.gov/stip.

STI PRODUCTS MADE AVAILABLE THROUGH DOE STI PROGRAM

This Attachment provides information and/or requirements associated with DOE O 241.1B as well as information and/or requirements applicable to contracts in which the associated CRD (Attachment 1 to DOE O 241.1B) is inserted.

Scientific and technical information (STI) is produced and published in various media and formats. STI submitted to OSTI requires an accompanying Announcement Notice (AN) with the product or, in certain cases, an AN only. This table lists STI products for which procedures have been defined for use when submitting and/or announcing STI to DOE OSTI.

OSTI and the STI Program recognize the changing environment, with new forms of STI emerging. As new types of STI are created and disseminated by the DOE community, procedures and the associated announcement methods for each will continue to evolve in step with advances in information technology and innovation within the Department. Therefore, for the most up-to-date instructions, formats, and examples of STI product types, refer to the STI Program website (www.osti.gov/stip/stitypes).

STI PRODUCTS		Product to OSTI? Yes (Y) or No (N)
Books/monographs		Y
Conference, symposium, lecture, or similar event papers, presentations, or proceedings	Copyrighted	N, AN only
	Not copyrighted	Y
Journal articles	Copyrighted (reprint)	N, AN only
	Accepted manuscript	Y
Patents		N, AN only
Program documents having STI content (e.g., published by HQ)		Y
Publicly available scientific research datasets ¹ /collections		N, AN only
Scientific and technical computer software ² (including software manuals or user guides where provided)		Y (or AN only if certain criteria met ²)
Technical reports, workshop reports, and topical reports		Y
Theses/dissertations		Y
e-prints		N

¹Does not include raw data nor datasets with restricted use, e.g., by members of scientific collaborations. Collections may be comprised of numeric datasets, scientific images, etc.

²See www.osti.gov/stip/softwareannounce for additional information.

DOE ANNOUNCEMENT NOTICES AND STI METADATA ELEMENTS

This Attachment provides information and/or requirements associated with DOE O 241.1B as well as information and/or requirements applicable to contracts in which the associated CRD (Attachment 1 to DOE O 241.1B) is inserted.

Announcement Notices (ANs) are required for submitting or announcing STI to OSTI in order to ensure proper handling, announcement and dissemination, in accordance with DOE statutory responsibilities. Several ANs are available for use, depending on the type of STI as well as type of originator:

- AN 241.1 – For DOE Labs, Major DOE Facilities and Program Offices
- AN 241.3 – For Financial Assistance Recipients or Grantees (e.g., at universities)
- AN 241.4 – For S&T Software
- AN 241.5 – For UCNI and Classified STI
- AN 241.6 – For Publicly Available Scientific Research Datasets

Transmission options and instructions for ANs are provided on the STIP website at www.osti.gov/stip/announcementnotices.

Several metadata elements are common to all ANs, while others are specific to the type of STI. The basic required metadata fields are listed below. For complete metadata field descriptions, options, information about use of the DOE Energy Link (e-link) system, and best practices for various types and formats of STI, please reference the STI Program website, <http://www.osti.gov/stip>.

Required Metadata Elements	
<ul style="list-style-type: none">• Report/Product Number• Title• Author(s)• STI Product Type• DOE Contract/Award Number(s)• Originating Research Organization• Sponsoring DOE Program Office*• Issue Date/Date of Publication• Intellectual Property/Distribution Limitations (i.e., Access Limitations)• Medium (e.g., format and related technical requirements)• Releasing Official Information	<p>Additional metadata unique to S&T software or datasets:</p> <ul style="list-style-type: none">• Description• Legal Notices and Disclaimers• Hardware Requirements (e.g., operating system, compiler/version)• Related Resource (e.g., relation to a specific journal article or technical report, when applicable)• Contributing Organizations• Software or Data Contact <p>Additional metadata unique to classified STI</p>

* For DOE-funded work, identify sponsor at the subprogram level to ensure proper attribution. If funded by work for others (other agencies), agency-level identification is adequate.