

Contact Person	Elizabeth Pieper	Revision	0
Document	Policy 10100.004	Effective Date	04/01/2016
		Review Date	04/01/2019

SCIENTIFIC AND TECHNICAL INFORMATION POLICY

This document describes the Ames Laboratory's policy for Science and Technical Information publications collection.

1.0 APPROVAL RECORD

- Reviewed by: Document Control Coordinator (Hiliary Burns)
- Approved by: Technology Transfer Manager (Stacy Joiner)
- Approved by: Legal Counsel (Barbara Biederman)
- Approved by: Assistant Director of Scientific Planning (Cynthia Jenks)
- Approved by: Associate Laboratory Director of Sponsored Research (Debra Covey)
- Approved by: Chief Operations Officer (Mark Murphy)
- Approved by: Chief Research Officer (Duane Johnson)
- Approved by: Deputy Director (Thomas Lograsso)
- Approved by: Laboratory Director (Adam Schwartz)

The official approval record for this document is maintained in the Training & Documents Office, 105 TASF.

2.0 REVISION/REVIEW INFORMATION

The revision description for this document is available from and maintained by the author.

3.0 PURPOSE AND SCOPE

The purpose of this policy statement is to outline the responsibilities and scope of work of the Scientific and Technical Information (hereinafter referred to as "STI") effort at the Ames Laboratory to comply with the [Department of Energy \(DOE\) Order 241.1B](#) and [DOE's Public Access Plan](#), which was issued in response to the February 22, 2013, memo from the White House's Office of Science and Technology Policy.

Ames Laboratory is responsible for reporting all DOE funded (wholly or in-part) STI, including accepted manuscripts, to the DOE's Office of Scientific and Technical Information (OSTI) via the E-Link system after it has gone through internal patent clearance.

Ames Laboratory's accepted manuscript compliance is measured annually by comparing the number of accepted manuscripts submitted to OSTI in each fiscal year with the total number of DOE-funded publications found for each fiscal year via Web of Science search. Full compliance target requirement is 85% (or higher).

3.1. DEFINITIONS

Accepted Manuscript or Author's Version: The version of an article that has been accepted for publication by a publisher. The accepted manuscript includes changes made by the author during the peer-review process and is not in the publisher's final format.

Acknowledgment: The statement used to state the funding source that supported the research which lead to the publication.

Announcement: The citation information for a published journal that is submitted to OSTI. This record can be submitted in place of an accepted manuscript. The submission

Contact Person	Elizabeth Pieper	Revision	0
Document	Policy 10100.004	Effective Date	04/01/2016
		Review Date	04/01/2019

of announcements is not factored into the compliance rate for OSTI

Employee Check out: A process where all employees and associates upon completion of their appointment are required to be checked out of the Laboratory. All graduate/postdoctoral students are required to submit the Check-out form to the STI Coordinator to sign when leaving employment from the Laboratory, so that a copy of the thesis/dissertation may be obtained.

Cooperative Research and Development Agreement (CRADA) Report: The final non-proprietary report submitted to Ames Laboratory's Office of Sponsored Research upon completion of a CRADA. All CRADA final reports are submitted to OSTI via E-Link, as required.

Dataset: A collection of data; most commonly the dataset corresponding to the contents of a database table or a data matrix.

DOI: The digital object identifier that is assigned to a publication or dataset. For published manuscripts, the publisher of the journal designates the DOI. For datasets, the author(s) must contact the STI Coordinator to obtain a DOI.

E-Link: Facilitates the electronic submittal of STI between DOE and its client community including researchers, reviewers, research administrators, and others doing business with DOE. E-Link is developed and maintained by the DOE OSTI.

Full Compliance: Full compliance is defined as routine submission of final peer-reviewed, accepted manuscripts for DOE-funded (partially or fully funded), Lab-affiliated articles to DOE through the OSTI E-Link system, not later than 12 months from publication date. It is recognized that factors such as lag times in publication life cycles and large collaborative research efforts may affect a small percentage of publications, but it is anticipated that labs should be able to achieve and sustain in out-years an 85% (or higher) submission rate compared with identified published articles.

Intellectual Property (IP): Refers to creations of the mind, such as inventions; literary and artistic works; designs; and symbols, names and images used in commerce.

Intellectual Property Disclosure and Record (IPDR): This is submitted by the inventors to the Ames Laboratory IP Coordinator to track potentially patentable information. The IPDR is processed by the ISURF and reviewed for patentability.

Iowa State University Research Foundation (ISURF): Iowa State University's non-profit corporation that manages the collection of IP that arises from the work of Iowa State University (ISU)/Ames Laboratory employees and students.

Office of Scientific and Technical Information (OSTI): Is the Department of Energy office that collects, preserves, and disseminates DOE-sponsored research and development (R&D) results that are outcomes of R&D projects or other funded activities at DOE.

Contact Person	Elizabeth Pieper	Revision	0
Document	Policy 10100.004	Effective Date	04/01/2016
		Review Date	04/01/2019

Patent Clearance: A contract requirement for review of a publication for possible patentable information prior to publication. All Ames Lab researchers sign an Intellectual Property Agreement stating they will comply with the requirement.

Patent Clearance Report: The report given to the General Counsel on a regular basis with a list of STI needing patent clearance review.

Publication Charges: The amount journal publishers charge for an article to be printed in their journal.

Publication Number: The identification number assigned by the STI Coordinator to a journal publication (IS-J), conference paper (IS-M), thesis (IS-T), R&D papers (IS-), Datasets (DS-) and CRADA final reports (C-XXXX-XX).

Public Disclosure: The act of making information or data readily accessible and available to all interested individuals and institutions. Public disclosure may include, verbal or written statements released to a public forum, new media, or the general public; publication in an official bulletin, gazette, report, or stand-alone document; and information posted on a website.

Principal Investigator: An individual charged with leading a specific research effort at the Ames Laboratory, particularly for a Cooperative Research and Development Agreement, Strategic Partnership Project, or Technical Service Agreement.

R&D Papers: Includes technical and final reports after a project is complete.

Scientific and Technical Information (STI): A collective term referring to journal articles, conference proceedings, research and development reports, datasets, CRADA final reports, theses/dissertations, and software.

STI Product: The term OSTI uses to describe the accepted manuscripts, book chapters, conference papers/proceedings, datasets, technical reports, and theses/dissertations that are filed with OSTI through the E-Link system.

Thesis: A scientific dissertation involving research written by an Ames Laboratory graduate student using DOE funds.

4.0 ROLES AND RESPONSIBILITIES

4.1. Publication Authors (Ames Laboratory employee only):

- Notify [STI](#) of publication, conference proceedings, thesis, datasets, or final reports prior to submission of manuscript and public disclosure to allow sufficient time for patent clearance review.
- Complete purchase requisition for page and color charges.
- Submit copyright requests to [STI](#) for review and approval.
- Submit a copy of the accepted manuscript or author's version to [STI](#).
- Work with the Division/Institute/Program Director (DD/ID/PD) to properly acknowledge the funding source(s) in the "Acknowledgment" section of the published scientific paper (see Appendix 4).

Contact Person	Elizabeth Pieper	Revision	0
Document	Policy 10100.004	Effective Date	04/01/2016
		Review Date	04/01/2019

- Check out with the STI Coordinator before leaving the Laboratory if they are a student.
- Notify the STI Coordinator if they desire a DOI for a dataset associated with a publication. The author(s) should provide the website where the dataset is located. This will ensure one location for the dataset versus uploading the information to several publishers as needed.

4.2. Ames Laboratory General Counsel:

- Reviews the draft publication for potentially patentable information prior to submission to a journal or other publication (patent clearance).
- Reviews the published manuscripts on the patent clearance report which were not submitted prior to publication for potentially patentable information.

4.3. Division/Institute/Program Directors:

- Notify their researchers to submit all accepted manuscripts to STI prior to submission of the publication to the [STI Office](#) for patent clearance review.
- Review papers for proper funding source acknowledgments in the publication and provide guidance to researchers on acknowledgements prior to submission.

4.4. STI Program Coordinator:

- Reviews and approves submitted publication charges.
- Reviews acknowledgment of the Ames Laboratory contact number for correctness.
- Reviews submitted STI and indicates whether an IPDR is on file.
- Provides patent clearance report to Laboratory Associate Counsel for review and contacts author(s) if patent clearance review warrants further information and the filing of an IPDR.
- Requests accepted manuscripts, conference proceedings, and theses from publication authors.
- Submits and requests information for a dataset to OSTI to obtain a DOI.
- Requests final CRADA reports from the PI.
- Checks with ISURF before submitting theses/dissertations to OSTI E-Link to make sure they are not on hold.
- Submits and releases all STI, including accepted manuscripts, to OSTI E-Link.
- Processes employee checkout of the Laboratory for STI.

4.5. IP Manager

- Contacts author(s) of identified publications for confirmation of potentially patentable information..
- If publication has warranted patentable information, an IPDR is prepared by the inventors and IP Manager proceeds with filing IPDR with ISURF and requests that author(s) remove the potentially patentable information from the publication, if necessary.
- Notifies the STI Coordinator of the outcome of the discussions with the author(s) and if it's acceptable to remove the hold on the publication or not.

Contact Person	Elizabeth Pieper	Revision	0
Document	Policy 10100.004	Effective Date	04/01/2016
		Review Date	04/01/2019

5.0 PREREQUISITE ACTIONS AND REQUIREMENTS

- 5.1. Each STI product will be provided to the STI Program Coordinator prior to submission to be assigned a corresponding number used within the STI database to efficiently track STI.
- 5.2. Each STI product will be assigned an OSTI ID once submitted to OSTI E-Link. The document number is entered into and tracked within the Ames Lab STI database.
- 5.3. Publication author(s) are encouraged to complete a yearly training/refresher for STI policy and requirements by Ames Laboratory and DOE.

6.0 PROCEDURE INFORMATION

- 6.1. The author(s) will notify the [STI Office](#) of publication, conference proceedings, thesis/dissertation, or final reports prior to public disclosure to allow sufficient time for patent clearance review; typically 5 working days.
 - **Publication costs:** If the publisher has charges for pages and/or color pages, the author completes a purchase order requisition and requests a document number from the [STI Office](#).
 - **Copyright forms:** Authors send to the [STI Office](#) for review before signing.
 - **Datasets:** If an author has a dataset associated with a publication and they would like to have a DOI assigned to the dataset, the author(s) should contact the STI Coordinator and send the accepted manuscript and the website location of the dataset. The STI Coordinator will then enter and request the information to OSTI E-Link and provide the requesting author with the assigned DOI.
- 6.2. Ames Laboratory General Counsel will review the patent clearance report for potentially patentable information. STI is either cleared for release or marked “hold until further notice” if potentially patentable information is found or if additional information is required to render a determination. The report is returned to the STI Coordinator who will contact the author(s) where potentially patentable information is indicated or submit to OSTI E-Link if cleared for release.

If the publication is deemed to contain potentially patentable information, the author will be notified and asked to confirm the information. If the author agrees it contains potentially patentable information, an IPDR will be completed and submitted to the Office of Intellectual Property for review and processing with ISURF.
- 6.3. Author(s) submits a copy of the Accepted Manuscript or Author’s version to the [STI Office](#).
- 6.4. STI Manager enters and submits the accepted manuscript to OSTI once the article has been published.

Contact Person	Elizabeth Pieper	Revision	0
Document	Policy 10100.004	Effective Date	04/01/2016
		Review Date	04/01/2019

7.0 POST PERFORMANCE ACTIVITY

OSTI will contact the STI Coordinator with a Web of Science search of potential Ames Laboratory funded publications once a month for review and approval. The STI Coordinator will verify the list contains only manuscripts supported through funding that flows through the Laboratory and will then confirm receipt of the accepted manuscripts remaining on the list. At the end of the fiscal year, OSTI will provide Ames Laboratory with the statistics of total publications submitted in accordance with the DOE Public Access Plan.

The STI Coordinator will track publication receipt and patent clearance review metrics as developed within the STI plan for achieving full compliance. If compliance is not achieved, the Ames Laboratory Director will be notified and increased communication and training regarding the STI process and requirements will be given.

8.0 ADDITIONAL INFORMATION

- Appendix 1.** [Scientific and Technical Information Management DOE Order 241.1B](#) (approved December 13, 2010)
- Appendix 2.** [Department of Energy Public Access Plan](#) (approved July 24, 2014)
- Appendix 3.** Ames Lab Employee Intellectual Property Agreement
- Appendix 4.** Proper Ames Laboratory and Funding Source Acknowledgments
- Appendix 5.** STI Plan for achieving compliance (to be submitted to OSTI per the 2016 PEMP no later than May 13, 2016 (Lab Plan due date))

U.S. Department of Energy
Washington, D.C.

ADMIN CHANGE

DOE O 241.1B

Chg 1: 4-26-2016

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.

Page	Paragraph	Changed	To
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 .

Page	Paragraph	Changed	To
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

Page	Paragraph	Changed	To
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 .

Page	Paragraph	Changed	To
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)

Page	Paragraph	Changed	To
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_Combpliance_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/department-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/f18/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.

Public Access Plan



U.S. Department of Energy
July 24, 2014

ENERGY.GOV

Table of Contents

Background	3
Authority	3
Public Access to Scientific Publications.....	4
Scope.....	4
Requirements.....	5
Applicability	5
Roles and Responsibilities.....	5
Planning	5
Implementation	6
Metrics, compliance, and evaluation.....	7
Public consultation experience.....	8
Public notice.....	8
Update and re-evaluation of the Plan	8
Timeline for implementation	8
Resources.....	8
Public Access to Scientific Data in Digital Formats	9
Scope.....	9
Requirements and Applicability.....	9
Roles and Responsibilities.....	11
Implementation	12
Metrics, Compliance, and Evaluation	12
Public Consultation	13
Public Notice	13
Update and Re-evaluation of the Plan.....	13
Timeline for Implementation.....	13
Resources.....	14

Background

This document, the Public Access Plan (the Plan) for the Department of Energy (DOE or Department), including the National Nuclear Security Administration, presents the Department of Energy's plan for increasing access to the results of the research it supports in response to the February 22, 2013, Office of Science and Technology Policy (OSTP) Memorandum, "Increasing Access to the Results of Federally Funded Scientific Research."¹ This Plan outlines the Department's approach to implementing the objectives of the OSTP memorandum. Through policies and systems discussed in this Plan, scholarly publications and datasets resulting from research directly arising from DOE funding can become more readily accessible to the public, setting the stage for increased innovation, commercial opportunities, and accelerated scientific breakthroughs.

With regard to unclassified and otherwise unrestricted² research in scientific publications, the Department proposes a new policy and tool for providing access to peer-reviewed scholarly publications and associated metadata in which publishers retain their rights under copyright to the Version of Record (VoR). Both the policy and tool will be applied to scholarly publications resulting from unclassified and otherwise unrestricted research supported by the Department.

With regard to unclassified and otherwise unrestricted scientific data in digital formats, the Department proposes a set of principles and requirements to be adopted by all DOE offices supporting open research. Implementing strategies and timelines may differ across the Department depending on the specific communities supported and funding mechanisms used by each office.

Authority

This Plan was developed in response to OSTP's February 22, 2013, Memorandum, "Increasing Access to the Results of Federally Funded Scientific Research," and is consistent with DOE's current programs and policies for providing access to unclassified and otherwise unrestricted R&D results. These programs are based on existing DOE authorities, including but not limited to: the Atomic Energy Act of 1954, as amended, the America COMPETES Act of 2007, Department of Energy Acquisition Regulations and financial assistance regulations (48 CFR Chapter 9 and 10 CFR 600), and DOE Order 241.1B, Scientific and Technical Information Management.

¹ http://www.whitehouse.gov/sites/default/files/microsites/ostp/ostp_public_access_memo_2013.pdf

² In this document, "unclassified and otherwise unrestricted" refers generally to information that is identified as not exempt from disclosure under one or more of the exemptions to the Freedom of Information Act (FOIA), which includes Export Control, proprietary information, and National Security classified information.

Public Access to Scientific Publications

The Department proposes a model for ensuring public access to unclassified and otherwise unrestricted scholarly publications resulting from DOE funding that provides the public with access to the best available version of the article. The proposed model will enhance innovation and competitiveness for science- and research- driven businesses and other entities that drive the U.S. economy by increasing their access to the results of publicly-funded research. Under this proposal, the best version of the article is the VoR hosted by the publisher. In cases where this is not publicly accessible, the Department will provide access to accepted manuscripts in publicly accessible repositories. Specifically, DOE's Office of Scientific and Technical Information (OSTI) will maintain a repository of accepted manuscripts and can make individual, unclassified and otherwise unrestricted manuscripts publicly accessible if there is no other publicly available version.

The Department proposes to host, a portal and a search interface tool, the Public Access Gateway for Energy and Science (PAGES), to enhance the discoverability of unclassified and otherwise unrestricted scholarly publications resulting from DOE funding. PAGES will provide metadata and abstracts for such publications in a way that is open, readable, and available for bulk download. The PAGES metadata catalog will be included in the Department's Enterprise Data Inventory and Public Data Listing. PAGES will also link to the full text VoR hosted by the publisher when the article is available on the publisher's site openly and without charge. In instances where this is not the case, PAGES will link to a full-text version of the accepted manuscript twelve months from the article publication date and then link to the VoR when and if it becomes available. Metadata accompanying the accepted manuscript, e.g., author name, journal title, and digital object identifier (DOI) for the VoR, ensures that attribution to authors, journals, and original publishers will be maintained.

PAGES will ensure that the public can read, download, and analyze in digital form final peer-reviewed manuscripts or final published articles. The portal will facilitate analysis of peer-reviewed scholarly publications directly arising from research funded by DOE. By ensuring public access while leveraging the public access efforts of the publishing community and other stakeholders, PAGES will maximize the potential for creative reuse of federally funded R&D to enhance the value to all stakeholders; avoid unnecessary duplication of existing mechanisms; and maximize the impact of the Federal research investment.

Scope

This section applies to scholarly publications (i.e., final, peer-reviewed and accepted manuscripts or, for participating publishers, the corresponding published journal article) produced in whole or in part by Department of Energy federal employees, National Laboratory and other Management and Operating (M&O) contractor employees, financial assistance awardees, other grantees, and other contractor entities where the publication describes unclassified and otherwise unrestricted research findings produced with complete or partial DOE funding, unless otherwise prohibited by law, regulation, or policy.

Requirements

All researchers receiving DOE funding will be required to submit metadata and a link to the full-text accepted manuscript (or the full text itself) to OSTI. Publishers who participate in DOE's public access activity will submit article metadata and links to OSTI. Classified or protected data and research will not be made publicly available.

Applicability

These requirements will apply for all publications of research results arising from complete or partial DOE funding, unless otherwise prohibited by law, regulation, or policy.

This Plan is subject to law; agency mission; resource constraints; U.S. national, homeland, and economic security; and the objectives detailed in the OSTP Memo: "Increasing Access to the Results of Federally Funded Scientific Research." Classified or protected data and research will not be made publicly available.

Roles and Responsibilities

DOE is responsible for communicating its public access requirements to all funding recipients including contractors and financial assistance awardees. In particular, DOE will ensure that the terms and conditions of research contracts and awards will contain the appropriate requirements for public access.

DOE-funded authors will be responsible for providing accepted manuscript links and metadata to OSTI.

DOE's OSTI is responsible for operating and maintaining DOE's public access system and network. The submission of accepted manuscripts and publication metadata to DOE will be a condition of funding. The Department will ensure compliance through mechanisms already in place for collecting research deliverables.

Publishers that voluntarily participate in DOE's public access program will provide to OSTI article links and metadata for articles resulting from DOE funding.

Planning

Since 1947, OSTI has made R&D findings available to DOE researchers and the public. OSTI has a well-developed program to identify certain types of scientific and technical information (STI) produced through DOE funding, such as technical reports, patents, and preprints, and to provide access to this STI through a number of search tools. Current DOE-funded authors are familiar with submission processes for these forms of STI; extending this program to authors' accepted manuscripts is an incremental step.

During the past several years, OSTI has worked with major publishers to identify DOE-affiliated articles and to share metadata. In particular, in March 2012, DOE and other funding bodies joined publishers and CrossRef³, an independent association of publishers, in a project called FundRef⁴, which, when fully

³ <http://www.crossref.org/>

⁴ <http://www.crossref.org/fundref/>

functional, will provide a standard metadata element to identify agency funding sources for published articles.

Implementation

The Department proposes to host a portal, PAGES, which will provide metadata and abstracts for publications resulting from DOE funding. In cases where the publisher's VoR is publicly available, PAGES will direct the user to this VoR with a direct link to the publisher's website. In cases where the publisher does not provide public access, PAGES will direct the reader to the accepted manuscript hosted in an institutional repository (e.g. at a national laboratory or grantee institution) with a link provided by the author. In cases where the full text is not publicly accessible through publisher or institutional repositories, OSTI will host the accepted manuscript, submitted by the author, available through PAGES.

To ensure long-term preservation and access, all DOE-funded authors will be required to submit accepted manuscript metadata to OSTI along with a document or link to a publicly accessible, full text version of the accepted manuscript available on an institutional repository. The metadata will include a DOI for the VoR.

During an "administrative interval" of up to twelve months, PAGES will not provide access to full-text manuscripts. During this time, metadata including links to the publishers' VoR will be discoverable through the PAGES search interface and via PAGES application programming interfaces (APIs). After one year, PAGES will link to a full text version of the accepted manuscript and then link to the publisher's VoR when and if it becomes available. Publishers retain their rights under copyright to their VoR. The metadata contained in PAGES will be in the public domain and available for unlimited use and downloading, and will be made available via API. Classified or protected data and research will not be made publicly available.

PAGES will automatically reconcile DOIs submitted by DOE authors and by publishers to determine whether the VoR is accessible by the end of the administrative interval. In cases where the VoR is not accessible, PAGES will display a link to the accepted manuscript.

In all cases, OSTI will maintain a dark archive of manuscripts to be used in the event links become broken or full-text access is otherwise interrupted or discontinued. This dark archive will be part of the Department's Enterprise Data Inventory.

PAGES will provide APIs to allow third parties to easily access metadata and links. The links will continue to resolve to the full text, which reside in distributed repositories. In terms of interoperability, PAGES will make metadata citations available in widely used formats such as MLA, APA, Chicago, and Bibtex.

Additionally, PAGES will support export of metadata citations to EndNote, Excel, and CSV. PAGES will also support machine-to-machine transfer of bibliographic citations, via APIs.

The distributed nature of PAGES' full-text content inherently makes unauthorized mass downloading and redistribution more difficult. For the limited full-text content it hosts publicly, OSTI will enforce a download limit and post appropriate fair use policies.

PAGES will comply with existing regulations and OSTP and OMB guidance. In terms of full-text interoperability, nonproprietary formats, such as PDF/A, will be the norm, which will allow for broader text mining capabilities while recognizing other controls that will be in place to prevent mass redistribution. Common metadata formats and nonproprietary full-text formats serve to promote interoperability and long-term preservation. In addition, with an existing major government STI web presence, OSTI uses a suite of tools and techniques to enable compliance with Section 508 of the Rehabilitation Act (29 U.S.C. 794d).

Individual content holders—publishers for articles and laboratories or institutions for manuscripts—will be monitored to ensure compliance with full-text interoperability standards, download capabilities, and 508 compliance. On a daily basis, DOE will perform random sampling of PAGES content to monitor individual content holders for compliance with applicable standards. In cases where externally held content does not meet these standards, DOE will instead link to corresponding content held in its dark archive of accepted manuscripts.

DOE will provide a mechanism as part of PAGES for accepting input and petitioning for changes to the administrative interval. For example, users are encouraged to access the DOE PAGES Feedback page, which provides multiple channels for this input, including email, phone, and mailing address. With respect to petitions for changing the administrative interval, such petitions should be evidence-based, that is, factually- and statistically-based evidence that a change in DOE's administrative interval will more effectively promote the quality and sustainability of scholarly publications while meeting the objectives of public access. In considering such evidence, DOE will work with other federal science agencies to promote consistent implementation of administrative intervals for specific scientific fields.

Metrics, compliance, and evaluation

FundRef, a publisher-agency collaboration to add funding agency identifiers to manuscript/article metadata, will facilitate the tracking of publications resulting from DOE funding and therefore assist DOE in assessing and addressing any gaps in the PAGES repository. While FundRef matures, OSTI will use various citation sources, mining "acknowledgement" and "affiliation" fields, to identify any gaps in PAGES metadata submissions. At full maturity, FundRef will be the primary tool for identifying the full universe of accepted manuscripts that PAGES should contain for a given year. Comparison of this figure to actual receipts in PAGES will identify specific gaps. OSTI will then work with STI managers at labs and with procurement officials for grants to acquire any missing manuscript links and metadata. Similarly, for the participating publishers in the Clearinghouse for Open Research of the United States (CHORUS), the FundRef tool will serve to identify any articles not properly represented and available through PAGES.

The PAGES tool and associated policies, including the choice of file format, will be reviewed periodically to ensure cost effectiveness and optimal support to public access objectives.

Public consultation experience

The PAGES concept and demonstrations of the PAGES prototype have been shared with a broad cross section of stakeholders internal and external to DOE including briefings and demonstrations of PAGES to key officials in most federal science agencies. Stakeholders include Federally-funded researchers and universities, libraries, publishers, users of Federally-funded research results, and civil society groups. Going forward, DOE will continue to solicit the views and input of stakeholders and will use multiple channels for such feedback, including e-mail, phone, and mailing addresses on the PAGES website. DOE will take stakeholder feedback into account, through various channels including a PAGES user focus group, in revising and improving its public access model.

Public notice

The requirements in the Plan are consistent with existing Departmental policies and regulations; accordingly, no additional public notice is necessary.

Update and re-evaluation of the Plan

DOE's public access plan will be reviewed and revised as part of the periodic reporting requirements to OSTP and OMB. Principally, the Plan will be a tool for documenting and communicating the ongoing improvement and evolution of public access in DOE.

Timeline for implementation

Beginning in August 2014, DOE will implement a publicly accessible "beta" version of PAGES for demonstration and socialization purposes within its DOE-funded author communities. During this projected 12-month test period, DOE will communicate and socialize author submission requirements, which are incremental enhancements of existing requirements to submit other forms of STI. During this transition, users with questions, comments, or suggestions will be encouraged to access the DOE PAGES Feedback page, which provides multiple channels for input, including email, phone and mailing address. Starting October 1, 2014, the Department will begin to include requirements for the submission of accepted manuscripts and publication metadata in award agreements.

Resources

DOE will use existing OSTI and other DOE resources to implement this plan. OSTI has redirected resources by streamlining and consolidating a number of information products. This Plan proposes only incremental changes to existing mechanisms and tools for collecting and providing access to unclassified and otherwise unrestricted scientific and technical information. The publishing community is developing a multi-publisher portal, the Clearinghouse for Open Research of the United States (CHORUS), to provide access to journal articles resulting from government funding. Such an activity offers considerable economies in the integration of article metadata and links for publishers who want to participate in DOE's public access efforts. PAGES, however, can operate successfully independent of CHORUS.

Public Access to Scientific Data in Digital Formats

The Department affirms that the following principles for the management of digital research data support its mission and align with the objectives of the OSTP memo.

- Effective data management has the potential to increase the pace of scientific discovery and promote more efficient and effective use of government funding and resources. Data management planning should be an integral part of research planning.
- Sharing and preserving data are central to protecting the integrity of science by facilitating validation of results and to advancing science by broadening the value of research data to disciplines other than the originating one and to society at large. To the greatest extent, with the fewest constraints possible, and consistent with the requirements and other principles stated in this document, data sharing should make digital research data available to and useful for the scientific community, industry, and the public.
- Not all data need to be shared or preserved. The costs and benefits of doing so should be considered in data management planning.

The Department is taking a phased approach to the implementation of requirements set forth by the OSTP memo. In particular, the Office of Science, which supports roughly two-thirds of the total R&D for the Department, plans to pilot a data management policy with the requirements described below by July 28, 2014. Other DOE Offices and elements with over \$100 million in annual conduct of research and development expenditures will implement data management plan requirements that satisfy the requirements of the OSTP memo no later than October 1, 2015 in such a way that there is a single DOE policy for data management planning.

The result will be a Department-wide policy. Should it be necessary, additional supplementary guidance and requirements addressing specific needs would be issued by each Office or element and coordinated centrally.

Scope

This section applies to unclassified and otherwise unrestricted digital research data (i.e. digital data required to validate research findings⁵) produced in whole or in part by Department of Energy federal employees, National Laboratory and other Management and Operating (M&O) contractor employees, financial assistance awardees, other grantees, and other contractor entities where the data are produced with complete or partial DOE funding, unless otherwise prohibited by law, regulation, or policy.

Requirements and Applicability

To integrate data management planning into the overall research plan, the Department will ensure that all research proposals selected for funding include a Data Management Plan (DMP).

⁵ See OMB Circular A-110 for a definition of "Research Data" (http://www.whitehouse.gov/omb/circulars_a110)

DMPs should describe whether and how data generated in the course of the proposed research will be shared and preserved and, at a minimum, describe how data sharing and preservation will enable validation of results, or how results could be validated if data are not shared or preserved.

DMPs should provide a plan for making all research data displayed in publications resulting from the proposed research open, machine-readable, and digitally accessible to the public at the time of publication. This includes data that are displayed in charts, figures, images, etc. In addition, the underlying digital research data used to generate the displayed data should be made as accessible as possible to the public in accordance with the principles stated above. The published article should indicate how these data can be accessed. Individual research offices will encourage researchers to deposit data in existing community or institutional repositories or to submit these data to the article publisher as supplemental information.

DMPs should consult and reference available information about data management resources to be used in the course of the proposed research.

DMPs must protect confidentiality, personal privacy, Personally Identifiable Information, and U.S. national, homeland, and economic security; recognize proprietary interests, business confidential information, and intellectual property rights; avoid significant negative impact on innovation and U.S. competitiveness; and otherwise be consistent with all applicable laws, regulations, and DOE orders and policies.

The merits of the DMPs will be evaluated. This evaluation will take into account the relative values of long-term preservation and access and the associated cost and administrative burden. Additional requirements and review criteria for the DMP may be identified by the sponsoring Office, program, sub-program, or in the solicitation.

In instances where the Department intends to collect digital data resulting from the supported research, additional requirements for data management may be necessary to ensure the Department meets the requirements of the Open Data Policy⁶. For elements of the Department for which the collection of researcher data is not already practiced, DOE will consult with its research communities through public forums such as Federal Advisory Committee Meetings and public announcements to identify which research data are appropriate for the DOE to collect or otherwise include in the public listing of agency data required by the Open Data Policy, and suitable mechanisms for doing so.

The Office of Energy Efficiency and Renewable Energy (EERE) will include detailed requirements to ensure specific research data are submitted to the Open Energy Information Platform (OpenEI), a centralized and secure resource for publicly accessible energy data managed by the National Renewable

⁶ “Open Data Policy—Managing Information as an Asset” (M-13-13) (<http://www.whitehouse.gov/sites/default/files/omb/memoranda/2013/m-13-13.pdf>) accompanying Executive Order “Making Open and Machine Readable the New Default for Government Information” (<http://www.whitehouse.gov/the-press-office/2013/05/09/executive-order-making-open-and-machine-readable-new-default-government->)



Energy Laboratory (NREL). All publicly accessible data on OpenEI will be integrated into the Department of Energy's Enterprise Data Inventory and its Public Data Listing, which can be found on energy.gov/data. The Public Data Listing is a machine readable file that is routinely harvested and populates the main data catalog at data.gov. This Data Listing is expected to be part of the comprehensive public listing of agency data that is required by the 2013 May 9 Executive Order and OMB Memorandum M-13-13. This integration will include use of the Project Open Data metadata schema to describe each dataset supporting broader use and understanding of information in private or non-profit sectors. Limited restricted data may be deposited in OpenEI for more appropriate sharing with the option of making these data publicly available once the associated research findings have been published or any sensitive data are released from moratorium. Finally, EERE will provide guidance about data management best practices in the form of a high level template DMP to include direction on leveraging subject matter specific repositories such as BioEnergy Knowledge Discovery Framework (KDF) and the National Geothermal Data System (NGDS).

Roles and Responsibilities

The Department is responsible for including the Requirements into all solicitations and invitations for research funding and ensuring that the DMPs are appropriately reviewed through, for example, additional review questions specific to the DMP.

The Department's Office of Scientific and Technical Information (OSTI) can provide digital object identifiers (DOIs) to data sets resulting from DOE-funded research. To improve the discoverability of and attribution for datasets created and used in the course of the research, DOE encourages the citation and identification of datasets with persistent identifiers such as DOIs.

Researchers should propose DMPs that reflect relevant standards and community best practices for data and metadata, and make use of community accepted repositories and publicly accessible databases whenever practicable.

Researchers submitting proposals for research funding to the Department are responsible for proposing appropriate DMPs, and adhering to the final, agreed DMP as part of the overall research activity.

Members of the research community serving as reviewers of research proposals are responsible for reviewing the DMP as part of those proposals.

The Department is responsible for initiating activities to review the effectiveness of the requirements, including compliance with DMPs, and making any improvements to the existing requirements and accompanying documentation.

The Department, with input from the research communities, private and public sectors, is responsible for long range planning for investments in data infrastructure and research including considerations for enhanced data discovery tools and data commons.

Implementation

The Department will include its requirements in all Funding Opportunity Announcements (FOAs) and Laboratory Announcements and other invitations for research funding. Direct and indirect costs associated with the DMP may be included in the proposed budget. Proposals submitted without a DMP may be rejected without further review.

The DMP, as an integral part of any research proposal selected, will be appropriately reviewed. Similar review processes will be used when evaluating DOE laboratory research activities as a part of the well-established periodic performance reviews.

Program Managers will be instructed to consider and comment on the DMP in selection statements for funding.

The development of knowledge and skills necessary for effective management, analysis, storage, preservation, and stewardship of scientific data are integrally tied to the training and education of students and professionals within the scientific and technical disciplines in which the scientific data are being produced. The Department supports ongoing efforts within its research programs to train undergraduates, graduate students, and postdocs in the scientific and technical areas aligned with the Department's mission areas and the best practices in scientific data management and analysis as part of those efforts. In addition, the Department supports training programs, such as targeted research opportunities for undergraduate and graduate students at the DOE national laboratories, which include research in areas of data-intensive science. DOE coordinates its workforce development and training activities with other agency partners through interagency working groups such as the National Science and Technology Council's Committee on STEM Education (CoSTEM) and the Networking and Information Technology Research and Development program (NITRD), and with industry and the public through activities of the DOE Federal Advisory Committees.

DOE currently supports a number of publicly accessible repositories of research data and, with input from public, private, and academic stakeholders, is active in developing new repositories to meet mission goals. This practice will continue as resources are developed for data sharing and preservation. DOE leads by example through its broad support of increased open access to publicly accessible energy data as fuel for innovation. Through the increased use of machine-readable and open formats, strong data interoperability standards, appropriate use of open licenses and use of common core and extensible metadata, DOE will work to improve access to all publicly accessible energy data across private and public sectors. DOE will continue to use public private partnerships as needed to enhance the usability of and access to energy data.

Metrics, Compliance, and Evaluation

Metrics and Evaluation: It is envisioned that the long-term needs for data sharing will be assessed by individual Offices or programs beginning about three years after the policy goes into effect to allow time for the completion of research activities with associated DMPs. This will provide a venue for evaluating the impact of the DMP requirements on data sharing and preservation practices of the various research communities.



Compliance: The DMP is part of the overall research proposal and, as such, it is expected that researchers will follow, to the best of their ability, the proposed research and associated data management plan. Failure to do so will negatively influence future funding opportunities. Furthermore, current oversight of grants and other financial assistance allows for withholding or adjustment of funds at the end of each performance period. Further input from the research communities will be solicited through Federal Advisory Committees and during workshops sponsored by the agency to assess the impact of the proposed DMP requirements and ensure compliance with agreed DMPs.

Public Consultation

In early 2012, OSTP published the responses to its Requests for Information on Public Access to Digital Data and Public Access to Publications. The Department has taken these responses into account in formulating the policies and plans stated here.

In May, 2013, the Department participated as observers in the “Meetings on Public Access to the Results of Federally Funded Research”—a public forum hosted by the National Academies on behalf of a consortium of agencies including DOE.

The requirements stated here have been vetted by the Federal Advisory Committees of each of the six Office of Science research programs through a series of presentations and charges for input.

Further input from the research communities will be solicited through Federal Advisory Committees and during workshops sponsored by the agency to assess the impact of the proposed DMP requirements and ensure compliance with agreed DMPs.

Public Notice

These requirements are consistent with existing Departmental policies and regulations; accordingly, no additional public notice is required.

Update and Re-evaluation of the Plan

The Offices of Science will pilot the Data Management Plan requirements for the Department in FY 2015. Based on this experience, the Requirements and other guidance may be adjusted for FY 2016.

Guidance for what to include in a DMP will be reviewed annually in consultation with other agency partners.

Timeline for Implementation

The Office of Science intends to publish its data management plan requirements on July 28, 2014. Starting October 1, 2014, the Requirements will be included in all invitations and solicitation for research funding issued by the Office of Science.

Other DOE Offices and elements will implement data management plan requirements no later than October 1, 2015. The result will be a Department-wide policy. Should it be necessary, additional supplementary guidance and requirements addressing specific needs would be issued by each Office or element and coordinated centrally.

Resources

Incremental funding for data management will be supported through existing research budgets.



**Ames Laboratory
Iowa State University**

Intellectual Property Agreement

In recognition of the fact that Iowa State University ("ISU"), as operator of the Ames Laboratory ("AMES" or "LABORATORY"), is engaged in the performance of contract research with the United States Government and other sponsors; in order to facilitate the technology development programs of ISU; and as a condition of my employment or appointment within the LABORATORY; I agree:

1. To provide formal documentation or other such information concerning items of ISU/AMES Intellectual Property¹ in subject-matter areas which are funded through Ames Laboratory or are primarily related to my involvement with Ames Laboratory; to the Ames Laboratory Office of Sponsored Research Administration or the ISU Office of Intellectual Property and Technology Transfer;
2. To assign and hereby assign all my rights and title in such ISU/AMES Intellectual Property to ISU or to other recipients as specified in executed contracts or funding agreements.
3. That any claim for compensation for any such item of ISU/AMES Intellectual Property provided by the Atomic Energy Act of 1954, as amended, is hereby waived; I am, as a consequence of this agreement, however, free to participate in the Ames Laboratory's Inventor Incentive award program² and the ISU royalty sharing program³;
4. To assist, upon request, in obtaining patents or other instruments of protection for ISU/AMES Intellectual Property and to execute all documents as may be required in connection therewith;
5. To seek review and counsel from either the Ames Laboratory Office of Sponsored Research Administration or ISU's Office of Intellectual Property and Technology Transfer prior to entering into an individual consulting agreement(s) that includes intellectual property terms and conditions;
6. To treat proprietary data or other technical, business or financial data which I receive or to which I am given access pursuant to my association with AMES in accordance with any restrictive legend contained therein, unless use is specifically authorized in writing by the owner. The obligations with respect to such data shall continue after termination of my association; and
7. To not mark, register or otherwise assert any claim to copyright in any data (with the exception of thesis data) or computer software first produced during my association with AMES arising from or related to work of AMES without written authorization of the sponsor and AMES.
8. It is recognized that during the course of and subsequent to my association with the Ames Laboratory, I may desire to publish information regarding scientific or technical developments made in the course of that association. In order that public disclosure of such information will not adversely affect the patent and data interests of the sponsor or ISU and AMES, patent approval for release and publication shall be secured by the AMES Intellectual Property and Technical Information Coordinator through Patent Counsel prior to any such release or publication.

ISU ID

Signature

Printed Name

Date

¹ "ISU/AMES intellectual property" is defined as discoveries, inventions, patent applications, patents, copyrights, software, technical know-how, etc. resulting from Ames Laboratory administered projects.
² Monetary awards for patent applications filed and patents issued based upon Ames Laboratory funded research.
³ A share of net royalty income consistent with ISU policy and the Laboratory's Contract DE-AC02-07CH11358.

Inventions and Reporting Information

1. Comply with all Ames Laboratory requirements with respect to maintaining adequate lab notebooks as a record of your scientific work and keep your supervisor informed regarding inventions, discoveries and any improvements thereof.
2. If you have conceived or developed an invention, report it in writing using the Intellectual Property Disclosure and Record (IPDR) form. This form can be found at http://www.techtransfer.iastate.edu/en/for_iowa_state/intellectual_property_disclosures.cfm.
3. Prompt reporting of inventions is important. This is especially so if you plan to disclose an invention in a report or paper since its publication may be delayed if the invention is not reported early enough to permit adequate processing in advance of publication. The Iowa State University Research Foundation's Office of Intellectual Property and Technology Transfer (OIPTT) generally requests 30 days to review an IPDR.
4. OIPTT will attempt to assess the patentability, as well as the importance to ISU and the Ames Laboratory of patenting your invention. If your invention is deemed patentable, OIPTT will decide whether to elect title and file United States and foreign patent applications. If ISU does not elect to retain title, then the DOE has the right to do so. A patent application will then be prepared by the entity retaining title and will be submitted to you for approval and for signing the formal papers, including an assignment either to ISU or the DOE. If an application is filed, you and each co-inventor will receive a monetary award through the Ames Laboratory's Inventor Incentive Program.
5. If ISU and the DOE do not wish to elect or maintain an invention, such may be released to the inventor(s) under certain conditions. This may not apply in certain situations, such as Work for Others Agreements and CRADAs.

Contact Person	Elizabeth Pieper	Revision	0
Document	Policy 10100.004	Effective Date	04/01/2016
		Review Date	04/01/2019

Appendix 4: Proper Ames Laboratory and Funding Source Acknowledgments

DMSE

This work was supported by the U.S. Department of Energy (DOE), Office of Science, Basic Energy Sciences, Materials Science and Engineering Division. The research was performed at the Ames Laboratory, which is operated for the U.S. DOE by Iowa State University under contract # DE-AC02-07CH11358.

CBS

This work was supported by the U.S. Department of Energy (DOE), Office of Science, Basic Energy Sciences, Chemical Sciences, Geosciences, and Biosciences Division. The research was performed at the Ames Laboratory, which is operated for the U.S. DOE by Iowa State University under contract # DE-AC02-07CH11358.

CMi

This work was supported by the Critical Materials Institute, an Energy Innovation Hub funded by the U.S. Department of Energy, Office of Energy Efficiency and Renewable Energy, Advanced Manufacturing Office. The research was performed at the Ames Laboratory, which is operated for the U.S. DOE by Iowa State University under contract # DE-AC02-07CH11358.

Work supported wholly by DOE support (shortened version)

Work at the Ames Laboratory was supported by the Department of Energy-Basic Energy Sciences (or appropriate sponsor) under Contract No. DE-AC02-07CH11358.

Work only partially supported by DOE

Clearly state which portion of the research was funded under the Ames Laboratory contract and which other portions of the reported work were supported by other sponsors. For example:

Work at the Ames Laboratory was supported by the Department of Energy-Basic Energy Sciences (or appropriate sponsor) under Contract No. DE-AC02-07CH11358, a Humboldt Fellowship, and by a National Institutes of Health Graduate Fellowship (The order should reflect relative contributions).

Or by indicating what aspect of the research (materials or processing used or specific techniques) was supported by each sponsor:

Research at the Ames Laboratory was supported by the U.S. Department of Energy-Basic Energy Sciences (or appropriate sponsor) under Contract No. DE-AC02-07CH11358 (neutron scattering studies), by the National Science Foundation under Award # ____ (computational studies), and by the National Institutes of Health under Award # ____ (synthesis of samples).

Work supported by LDRD

This work was supported by the Laboratory Research and Development Program of The Ames Laboratory under the U.S. Department of Energy Contract No. DE-AC02-07CH11358.

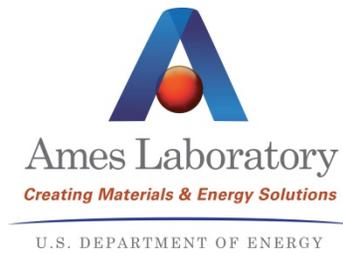
Work-for-Others Acknowledgement

This work was supported by [Agency Name, Contract or Order No.] through the U.S. Department of Energy under Contract No. DE-AC02-07CH11358.

For Presentations

Minimum acknowledgement should state that the work was supported by the U.S. Department of Energy, Office of Basic Energy Sciences (or appropriate office).

Appendix 5: STI Plan



Scientific and Technical Information Plan

FY 2016

This document describes Ames Laboratory's two (2) year plan for Scientific and Technical Information. Comments and questions regarding this plan should be directed to the contact person listed below:

Name: Elizabeth Pieper
STI Coordinator

Address: 311 TASF

Phone: 515-294-6486

Email: pieper@ameslab.gov

REVISION/ REVIEW LOG

Revision No.	Effective Date	Contact	Pages Effected	Description of Revision
0		E. Pieper	All	Initial Issue

Introduction

This plan maps the present and future direction of the Scientific and Technical Information (STI) effort at the Ames Laboratory to meet [DOE Order 241.1B](#) and the [DOE Public Access Plan](#). The Laboratory strives to achieve full compliance.

Baseline

The baseline is calculated on the total number of publications produced by funding provided through Ames Laboratory that the STI coordinator documented in the Ames Laboratory STI database and then divided by the total number of accepted manuscripts that were received by September 30, 2015. The DOE metric is to be at 85% or higher.

At the close of FY 2015, OSTI provided data indicating that our baseline was 13.7%. This accounts for accepted manuscripts that were received by the STI Coordinator and submitted to OSTI E-Link prior to the end of that year. With feedback from the STI Coordinator, OSTI continues to update the FY 2015 percentage and, therefore, the percentage continues to grow as accepted manuscripts are still being requested for the Ames Laboratory authors and submitted to OSTI. With the continued efforts, the FY 2015 percentage of accepted manuscripts funded through the Ames Laboratory and submitted to OSTI to date is currently 56.3%.

Fiscal Year 2015	# Ames-affiliated publications identified for FY15	# Accepted Manuscripts for publications, received at OSTI from Ames	% Received from Ames versus Total # Ames publications	# Ames-affiliated Accepted Manuscripts, received at OSTI from other Labs (via collaborations)	% Received from all sources versus Total # Ames publications
	284	159***	56.0%	1	56.3%
As a baseline, fiscal year 2015 submission numbers are shown below. There is a 12 month post-publication allowance for submission, and Accepted Manuscripts from FY15 are continuing to be submitted					

AMES' goal is to increase the percentage in FY 2016 to greater or equal to 70% and in FY 2017, to greater or equal to 80%. As of April 26, 2016, our FY 2016 baseline is 63.3%.

Fiscal Year 2016 (Data current as of April 26, 2016)								
Fiscal Year 2016	# Ames-affiliated publications identified in Web of Science for FY16	# Accepted Manuscripts for publications identified via Web of Science, received at OSTI from Ames*	# Additional Accepted Manuscripts, submitted by Ames (but not yet covered in Web of Science, as of report date)**	Total # Submissions from Ames	Total # Identified Ames-affiliated publications (Columns 1 & 3)	% Received from Ames versus Total # Ames publications	# Ames-affiliated Accepted Manuscripts, received at OSTI from other Labs (via collaborations)	% Received from all sources versus Total # Ames publications
October 1, 2015 – April 26, 2016	83	47	15	62	98	63.3%	0	63.3%
<p>*There is a 12 month post-publication allowance for submission.</p> <p>**Note: Depending on the specific journal, there may be a time lag between publication date and coverage in Web of Science. Any updates of FY16 data will be reflected in future reporting.</p>								

Patent Clearance Process

The publication author notifies the STI Office (sti@ameslab.gov) of publication, conference proceedings, theses/dissertations, or final reports prior to public disclosure to allow sufficient time for patent clearance review; typically, five (5) working days. The Laboratory's General Counsel reviews the Patent Clearance Report for potentially patentable information and either clears the publication for release or marks it "hold until further notice" if potentially patentable information is found. This report is returned to the STI Coordinator who submits the cleared for release publications to OSTI E-Link.

If the publication is deemed to contain potentially patentable information, the STI Coordinator will notify the author and ask to confirm that the information is potentially patentable. If the author agrees it contains potentially patentable information, an Intellectual Property Disclosure Record (IPDR) will be completed and submitted to the Laboratory's Office of Intellectual Property for review and processing by the Iowa State University Research Foundation (ISURF). Ames Laboratory's privately funded technology transfer clause in its M&O Contract, which gives Iowa State University patenting and licensing obligations for inventions arising from Contract funds. Once the IPDR is received by ISURF and a determination is made whether to proceed with patent protection and an application filed, the publication is released and sent to OSTI E-Link.

Accepted Manuscript Submission Process

Once the publication has been accepted, the author submits a copy of the Accepted Manuscript to sti@ameslab.gov. The publication metadata (data that describes the attributes of a document or other type of Scientific and Technical Information product and is used for announcement and retrieval; i.e. the information contained within a detailed bibliographic record: the title, author(s),

publication, issue, date, product type, keywords, report numbers, etc.) is entered into the STI Database and marked as “accepted.” Upon notification that the article has been published, the STI Coordinator submits the accepted manuscript to OSTI E-Link and marks the date and OSTI ID in our database.

The Laboratory’s scientific divisions each have processes in place to remind their researchers of their obligations to submit their manuscripts through STI.

The Division of Chemical and Biological Sciences (CBS) reminds the researchers at quarterly meetings to send accepted manuscripts to sti@ameslab.gov, as well as when a researcher mentions they have a paper that has been submitted or accepted to a publication. The Division Director also reminds researchers to use proper acknowledgement language in their manuscripts, providing examples.

The Division of Materials, Science, and Engineering (DMSE) sends out reminders twice a year stating that all accepted manuscripts should be sent to sti@ameslab.gov. The STI process is also addressed at regularly held Division meetings. The Division Director also reminds researchers to use proper acknowledgement language in their manuscripts, providing examples.

The Simulation, Modeling and Decision Science (SMDS) program handles fewer manuscript submissions as they are handled on a case by case basis.

Within the CBS, DMSE, and SMDS programs, the directors review the accepted and published papers for proper acknowledgment. If there is substandard acknowledgment used, the author is contacted and corrected on the proper way to acknowledge the DOE, Ames Laboratory and Contract number.

The Critical Materials Institute (CMI), a DOE Hub funded through the Office of Energy Efficiency and Renewable Energy, has slightly different challenges than CBS, DMSE, and SMDS programs with regard to acknowledgement of DOE support, because of the multiple institutions involved in the Hub. The CMI process is that all publications produced with CMI support undergo review via the home institution’s accepted process and by CMI management. For the CMI review, manuscripts are submitted to CMIpubreview@ameslab.gov where they are vetted for IP, appropriate technical content, business sensitive information and proper acknowledgement of DOE funding.

In cases, where the paper is jointly funded either between different Offices within DOE, or between DOE and other funding sources, it is checked to verify that the acknowledgment has addressed the funding split and properly identifies the contributions within the manuscript for each form of support.

Ames Laboratory has a dedicated [webpage](#) for the researchers to access for the proper forms of acknowledgment that should be used in publications.

Steps to Full Compliance

Our Timeline:

It is believed with the continuous efforts of the STI Coordinator, Lab management support, and PI efforts it will take two to five years for Ames Lab to achieve full compliance with the DOE Access Plan.

What We Are Doing:

The STI Coordinator continues to review the bi-weekly Web of Science report from OSTI and requests any Accepted Manuscripts from the report which acknowledge DOE-funding (or other funding sources) that flows through Ames Laboratory that are missing from the AMES' STI database.

OSTI sends quarterly Web of Science reports for AMES' review and approval. The STI Coordinator reviews the report to make sure all of the publications listed were funded through our Contract. The STI Coordinator reports back to OSTI any of those publications that should not be on the list.

An STI/IP information postcard was created in FY 2015 and is distributed on a regular basis reminding the researchers of our STI policies and what they also need to do to protect their Intellectual Property. The card is distributed when the STI Coordinator requests outstanding accepted manuscripts and theses as well as at researcher group meetings.

Scientific & Technical Information (STI)

- All STI, including journal articles, should be submitted to the STI Manager via e-mail at sti@ameslab.gov. Please submit publications prior to public disclosure to allow sufficient time for patent clearance review.
- If you feel your work contains potentially patentable information, complete an Intellectual Property Disclosure and Record (IPDR).
- As required, please email an Authors' version of DOE-funded accepted manuscripts to sti@ameslab.gov for transmittal to OSTI. The Authors' version is the version of the paper accepted for publication, including changes resulting from peer review, but prior to the publisher's final copy editing, formatting and distribution.
- Have your copyright forms reviewed and signed by the STI Manager. All copyright forms must reserve U.S. Government rights and we cannot indemnify publishers.

Publication Costs
Page, color and open access charges are at the discretion of each individual Program/Division at Ames. Prepare a purchase order, request a document number from sti@ameslab.gov and write on the PO, provide proper justification, and obtain Program/Division Director signature authorizing the expense.

STI Includes:
Journal articles derived from Ames Laboratory funding; graduate theses/dissertations; conference and R&D papers; technical and final CRADA reports.

Ames Lab STI Manager:
Beth Pieper, 294-6486
STI e-mail: sti@ameslab.gov

For more information, please visit
www.ameslab.gov/operations/era/scientific-and-technical-information-sti
*you must be logged into the Ames Lab website.



What is OSTI?
OSTI, Office of Scientific and Technical Information, is the DOE office that collects, preserves, and disseminates DOE-sponsored R&D results that are the outcomes of R&D projects or other funded activities at DOE labs and facilities nationwide and grantees elsewhere. The information is typically in the form of technical documents, conference papers, articles, multimedia, and software, collectively referred to as scientific and technical information (STI).

All technical information produced at Ames must acknowledge the funding source. Please see www.ameslab.gov/operations/era/acknowledgement for appropriate acknowledgement statements.

Intellectual Property rights are the legally recognized exclusive rights to creations of the mind. To assist in protecting IP, as required by our M&O Contract, researchers should:

IP Awareness

- Disclose ALL inventions conceived or reduced to practice by completing an IPDR found at www.techtransfer.iastate.edu/ and submit it to Stacy Joiner or Beth Pieper.
- Disclose inventions and check to see if patent application is filed before making public disclosure.
- Request a Non-Disclosure Agreement (NDA) if you want to speak with an outside entity before a patent application is filed. Requests should be sent to nda@ameslab.gov.
- Assist with all requests for additional information in the patent application and licensing process, as needed.

Inventions include the discovery or creation of a new material, a new process, a new use for an existing material, a new use for an existing process, or an improvement of any of these. In certain circumstances, computer software can be considered a patentable invention.

Public Disclosures include written publications, poster sessions, slides, lectures, seminars which are open to the public, letters, even conversations can count as a public disclosure and bar to patentability—depending on the country. It must be considered “enabling” which means it must teach someone of “ordinary skill in the art” how to duplicate the invention.

When submitting a proposal with **potentially patentable information** use the following to protect your IP:

Coverheet (BOLD or Red Text):
This proposal contains potentially patentable information under 35 USC 205 and 37 CFR 401 and should be treated as confidential. Pages containing such information are duly marked as such and should not be reproduced.

Each page containing patentable information (**BOLD or Red Text**):

Do Not Reproduce
Privileged Information Pursuant to 35 USC 205 and 37 CFR 401
Patent Caution

Important Contacts:
Stacy Joiner 294-5932 or joiner@ameslab.gov
Beth Pieper 294-6486 or pieper@ameslab.gov
Craig Finney 294-6933 or cfinney@ameslab.gov
New NDAs: nda@ameslab.gov or contact Beth Pieper

For more information, please visit www.ameslab.gov/techtransfer

Each month, the STI Coordinator reviews the travel report for possible conferences that may result in papers or conference proceedings. It is requested that the traveler notify sti@ameslab.gov positively or negatively if there are any conference proceedings. If there are conference proceedings, they are processed through the Patent Clearance process and submitted to OSTI via E-Link.

A notice is sent quarterly to the student employees reminding them to send in any publications, conference proceedings, or theses to sti@ameslab.gov. When a student leaves the Laboratory, they are processed through a “Check Out,” procedure in which several departments assure that the student has complied with various obligations before leaving our employ. They are required to have the STI Coordinator, or designee, sign the Check Out form and confirm if they have a thesis or dissertation. If so, they are given an STI/IP information card and encouraged to email or send in a hardcopy of the thesis/dissertation once completed. The STI Coordinator follows up with the student if the thesis or dissertation was not received after their graduation.

With the assistance of the Training Office, a training slide was created to be added to the General Employee Training (GET) for new employees to the Laboratory. STI training is also being created for researchers outlining the responsibilities and benefits of submitting their STI products. It is expected that the training module can be completed and implemented by the fall of 2016.

We are also developing a notice to be sent to all new hires to inform them of the Ames Laboratory process. This will assist in increasing the knowledge that STI is a requirement for the Laboratory complex wide.

With the Laboratory’s Contractor being Iowa State University, the researchers have the ability to utilize the ISU Digital Repository to store datasets. DMSE is currently encouraging their researchers to upload their information to the Repository and request a Digital Object Identifier (DOI) number. The option was also presented to CBS and CMI. In the future, we expect to

explore the option of utilizing the Repository to store received Accepted Manuscripts and set up a harvesting option for submission to OSTI E-Link.

Expected Barriers

Barrier in achieving full compliance: It is a culture and disciplinary shift for our researchers.

With Ames Laboratory being uniquely located on the campus of Iowa State University, the Laboratory consists of both Professional and Scientific Scientists, and Faculty Scientists. Faculty Scientists hold joint appointments between the two organizations. Faculty are accustomed to “academic freedom,” where they are not required to obtain preapproval for publications for research activities through their University appointment. In addition, Ames Laboratory does not perform classified work and in the past, there was not a concerted effort to get Ames Laboratory funded researchers to submit their papers in a timely manner. Because of these factors, it is challenging to get the researchers to understand the importance of the STI requirements.

Barrier in achieving full compliance: Researchers do not always perceive that it is necessary to send in accepted manuscripts when the article is already published.

Upon receiving a request from the STI Coordinator, some authors will send a copy of the published article to sti@ameslab.gov instead of the accepted manuscript. A couple of researcher concerns have been voiced below in response to the submission of an accepted manuscript versus the published article:

- 1) The published version is the only version that should be made public because it is the only one the author agreed to make public. There are often small and subtle changes made at the galley proof stage, either by the publisher or by the author, which can be quite important to the final published article.
- 2) Copyright issues with the accepted manuscript versus the published article.
- 3) Doubt in OSTI that the accepted manuscript will be made public versus the published article on the DOE site when possible.
- 4) Researchers do not always keep their accepted manuscript after the article was published.

The STI Coordinator responds to the researchers concerns and explains the DOE Public Access Plan to the best of their ability. In most cases, the researcher will send a copy of the accepted manuscript with the understanding that the accepted manuscript may contain discrepancies with the published version in the form of errors and inaccuracies.

Barrier in achieving full compliance: Authors do not have a copy of their accepted manuscripts.

AMES’ researchers frequently work with domestic and foreign universities in which they are not always the corresponding author and, therefore, the researcher does not always have a copy of

the accepted manuscript. In these instances, the STI Coordinator requests a copy of the accepted manuscript from the corresponding author. Some collaborators will return an accepted manuscript, but there are many that are still outstanding.

Also, with the electronic submission many journal publishers have the manuscripts uploaded into their format prior to it being accepted and published. In some cases, the document is in a text file, which is not easily decipherable and in the format for submission to E-Link. It is recommended to OSTI to work with such publishers to develop a system to retrieve these manuscripts.

Barrier in achieving full compliance: Authors do not always remember to submit their accepted manuscripts to sti@ameslab.gov before or when they electronically submitted a paper to the publication house so that a patent clearance review can be made before publication.

Per the Intellectual Property Agreement that is signed by AMES PI's upon onboarding, each publication should be submitted for patent approval release. Timeliness of this practice would assist in preventing a public disclosure that may adversely affect the patent and data interests of AMES and ISU; as well as STI obtaining a copy of a manuscript of the publication.

The publication is marked in the STI Database as "submitted" or "accepted" based on the status at the time of notification from the author. While some AMES authors do submit prior to publication, the majority of articles are submitted after a possible public disclosure date has been established. With encouragement from the Laboratory Management and STI Coordinator, submitting prior to publication would allow for early detection of potentially patentable information and an early version of the article would indicate an Accepted Manuscript will be available in the near future for filing with OSTI.

DOE Public Access Compliance Plan Goals and Actions Overview

Fiscal Year 2016 Goals:

1. Continue the cultural shift to submit all accepted manuscripts before or at the time of submission of the author's version to the publisher.
2. Continue efforts in place and distribute the IP/STI card to researchers upon each request for accepted manuscripts.
3. Institute yearly training for researchers educating on the DOE Public Access Plan and an introductory slide in GET Training for new employees.
4. Achieve 70% compliance by the close of FY 2016.

Fiscal Year 2017 Goals:

1. Continue informing and enforcing a cultural shift.
2. Work with Iowa State University's Digital Repository for storage of datasets.
3. Achieve 80% compliance at the close of FY2017.

4. Utilize the OSTI E-Link Wizard.

Fiscal Year 2018 - Fiscal Year 2019

1. Continue the disciplinary and cultural shift.
2. Achieve 85-90% compliance at the close of FY2018.
3. Reevaluate the STI plan for updated goals and to see where progress has been made on overcoming or eliminating barriers.