**DEPARTMENT OF ENERGY TECHNOLOGY TRANSFER**

**WORKING GROUP**

**REPORTING AND APPRAISAL GUIDE FOR DOE TECHNOLOGY TRANSFER**

**ACTIVITIES**

Updated 10/20/14



*This document was prepared by a combined DOE Field/Headquarters/contractor committee chartered by the Technology Transfer Working Group*

**Introduction**

In early 2001, DOE Headquarters and Field personnel developed a list of potential measures that could be used to evaluate technology partnership activities at DOE facilities. Subsequently, the scope of the project was expanded to include a review of the various technology partnership reports and data that are required from the field. A committee comprised of DOE Field Offices, Contractors and Headquarters personnel published the first *Reporting and Appraisal Guide for Technology Partnering Programs* (the guide) in June, 2002. Its purpose was to suggest measures for Departmental technology transfer activities and also to standardize the definitions and required elements for a comprehensive gathering of technology transfer data. A portion of this data was intended to be used for the annual technology transfer report to Congress now coordinated by the National Institute of Standards and Technology. In July of 2004 the guide was updated to reflect new requirements in the Data Elements and Reporting Standard Sections.

Since July, 2004, several significant events have occurred related to technology transfer. The Energy Policy Act of 2005 was enacted, in which the appointment of a DOE Technology Transfer Coordinator and the establishment of a Technology Transfer Working Group was required. In June, 2007, the Secretary of Energy appointed the first Technology Transfer

Coordinator and established the Technology Transfer Policy Board (TTPB), comprised of career DOE employees, to assist the coordinator. Subsequently, the Technology Transfer Working Group (TTWG), comprised of field DOE and contractor personnel, was established. In early April, 2011, the Secretary of Energy issued the *Secretarial Policy Statement on Technology Transfer at Department of Energy Facilities*.

This revision of the guide was commissioned by the TTWG. A Metrics Committee (the committee), comprised of DOE personnel from Headquarters program and the field, and DOE laboratory contractors has drafted this revision with review and comment from the field facilities and DOE Headquarters.

The purpose of this guide is two-fold. First, the Performance Measures section is intended to provide a tool and guidance for DOE-HQ, Field Offices, and DOE facilities to use in assessing the success of DOE’s technology transfer activities. The second purpose, addressed in the balance of the guide, is to provide a common definition of terms and facilitate the consistent collection and reporting of performance measurement data.

The information contained in the guide is organized into three sections: I Performance Measurement, II Data Elements, and III Reporting Standard.

**Performance Measurement**

**Overall Goals and Objectives**. Performance measurement needs to be structured around established goals and objectives. The committee suggests an overall goal based on the Secretarial Policy Statement on Technology Transfer as follows:

*“Use technology transfer activities and tools to leverage DOE resources, for overall benefit to U.S. competitiveness, enhancement of the nation’s energy security, national security, scientific discovery and quality of life.”*

To achieve this goal, two objectives are suggested as follows:

***Objective 1: Provide maximum impact on the U.S. economy by commercializing DOE/NNSA-funded intellectual properties.***

This objective addresses the heart of DOE’s technology transfer goal, that is, the commercial use and benefit of government-developed technologies. Measures established for this objective should be very outcome oriented.

***Objective 2: Make available to the public, the knowledge, intellectual property and capabilities developed at DOE facilities.***

This objective is directed at the enabling activities as stated in the Secretary’s policy statement to provide access for commercialization of new technologies. Its focus is the precursor to commercialization and measures should concentrate on making technology/capabilities available.

*(The specific “menu” of suggested measures is in Section I of this report)*

**Users and Stakeholders.** These suggested objectives and measures are intended to be used together as a tool for a variety of users and stakeholders in measuring DOE’s success in meeting its overall technology transfer goal in their particular area of interest. Examples of intended users are (1) the Technology Transfer Coordinator in evaluating the success of overall DOE technology transfer activities (2) Program Secretarial Officers in measuring the success of their particular program activities and (3) Field Site Office, multi-purpose/single-purpose laboratories and other facilities in measuring the success of local activities.

Since the needs of users and stakeholders will vary, the objectives and measures are not intended as a proscriptive list, but as a “menu” from which appraisers and facilities may select. Each user and stakeholder should select specific measures representative of their individual needs and establish expectations of each measure based on their view of what constitutes success.

In combination with other DOE resources, such as DOE Guide 120.1-5, Guidelines for Performance Measurement, this guide should assist the user in forming a set of meaningful, quality measures.

**Implementation.**

Users should select those measures that are necessary to describe success from their perspective, then provide, if necessary, the resources if additional collection effort be required. The TTWG currently collects the data listed in the Reporting Standard, Section Three of this guide.

**Data Elements and Definitions**

DOE is required to provide technology partnering data in several routine reports, e.g., the annual technology report to congress. Past experience has shown that the methods for collecting this data are inconsistent, and the requested data may be ill-defined and non- standard.

In an attempt to promote more consistent reporting, a list of common terms for DOE's technology partnering data has been developed. This section contains a comprehensive list of data elements and definitions. The Reporting Standard section identifies those elements that need to be updated and maintained on a routine basis.

**Reporting Standard**

This section contains a format for annual reporting of the output of multiple DOE-wide data points. Historically, the TTWG has collected this type of data at the end of each Fiscal Year. The objective is to make the data available for use technology transfer performance measures by DOE Programs, DOE Headquarters staff, DOE Field Offices, laboratories and other facilities.

**References**

References used in the preparation of this guide include the Secretarial Policy Statement on Technology Transfer at Department of Energy Facilities, DOE Order 481.1B, Work for Others, dated 9/28/01, and the DOE Guide 120.1-5, Guidelines for Performance Measurement, dated

6/30/96.

**Updates**

It is expected that this guide will be a "living document" that will be updated periodically. Any suggested additions or changes should be sent to the Chair of the Technology Transfer Working Group for consideration.

**I**

**Performance Measurement**



**Department of Energy**

**Objectives and Measures for Technology Transfer**

The following objectives and measures are intended to evaluate DOE’s technology transfer activities and how well these activities are meeting the suggested overall goal, as derived from the Secretary’s Policy Statement, to:

*“Use technology transfer activities and tools to leverage DOE resources, for overall benefit to U.S. competitiveness, enhancement of the nation’s energy security, national security, scientific discovery and quality of life.”*

Two objectives, with associated measures, are as follows and are suggested for use to describe progress towards the overall goal. Due to the broad nature of DOE/NNSA laboratories and facilities, it is anticipated that individual field organizations may utilize only a subset of the measures that are appropriate for their unique situation.

**Objective 1: Provide maximum impact on the U.S. economy by commercializing**

**DOE/NNSA-funded intellectual properties.**

Measures:

* 1. Commercialized Technologies
  2. Economic Contribution from Licensed Technologies
  3. Start-up Companies Established (with business plans based largely on

DOE/NNSA-funded Technologies).

* 1. Licenses Executed
     1. Patent Licenses
     2. Copyright Licenses
     3. No-Cost Software Licenses Provided and Licensed
  2. Royalties Received
     1. Earned Royalty Income
     2. Total Royalty Income

**Objective 2: Make available to the public, the knowledge, intellectual property and capabilities developed at DOE facilities.**

Measures:

* 1. Patents Issued
  2. Copyrights Asserted
  3. Work for Others Agreements Executed (Non-fed)
     1. Agreements with Small Businesses
  4. Work for Others Non-Federal (amount of funds-in)
  5. CRADA Agreements Executed
     1. CRADA Agreements with Small Businesses
     2. CRADA Participant Funds-in
  6. User Facility Utilization (number of users, number of user projects awarded)
  7. Personnel Exchanges Initiated
  8. Science Education Activities Performed
  9. Technical/Scientific Results Published

*(See Sections II and III for definitions and required reporting.)*

When possible each measure should be accompanied by an expectation level, the standard for acceptable performance, but especially on the local laboratory/facility level, this practice could skew the performance in an inappropriate direction, e.g., executing licenses primarily for the number, rather than the quality. Therefore, local DOE field offices should be cautious of emphasizing expectations of singular measures. On a national level the standard for acceptable performance should especially be viewed on a holistic basis.

**II**

**Data Elements & Definitions**



**Table of Data Elements and Definitions**

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|  | **Data Element** | **Definition of Data Element** | **Explanatory Notes**  **(if necessary)** |
| 1 | 100% Funds-In  CRADA | The non-federal partner provides all funding for the laboratory’s effort in the agreement. |  |
| 2 | Active Agreement | The agreement is legally in force during a specified time frame. This status begins on the effective date and ends on the completion date. | Active agreements = new agreements + continuing agreements. |
| 3 | Actual Cost | Actual charges recorded against the project during a specified time frame. |  |
| 4 | Actual Funding | Dollars actually received during a specified time frame. |  |
| 5 | Amendment | A change in work scope, funding, contribution, or performance period that is recorded in the agreement. | Same definition as "Modification." |
| 6 | Assignment | Any agreement that transfers ownership of Intellectual Property, subject to the Government’s retained rights. |  |
| 7 | Bailment | An agreement (fee-bearing) permitting the transfer of biological materials or other tangible research products for commercial or non-commercial purposes. Ownership of the material remains with the provider. | A fee-bearing agreement analogous to the definition of “Fee-Bearing License”; for similar but non-fee bearing agreement see “Material Transfer Agreement.” |
| 8 | Commercialized  Technology | A product, process, method or service, in the marketplace or commercially used, with realized quantitative benefits, actively licensed or provided to a non-federal entity, that incorporates at least one DOE-developed technology. | Using the definition of Commercialized  Technologies, facility technology transfer representatives should use this guidance and their judgment to report the number of technologies that qualify during the Fiscal Year. Some examples are fairly obvious, such as a license that has received or is receiving an earned royalty income. Other technologies licenses that provide for payments based on usage or time should also be included if they conform to the definition, e.g., those requiring annual license fees, milestone payments or equity obtained as a result of performance based milestones. Finally, there may be “other situations” where a technology is not |

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|  | **Data Element** | **Definition of Data Element** | **Explanatory Notes**  **(if necessary)** |
|  |  |  | licensed but is being commercially used. For these situations, the facility should include a description/explanation of why the technology qualifies for inclusion. The Technology Transfer Policy Board will be the final arbitrator for whether these “other situations” should be counted. In addition, facilities are encouraged to select one or more of these Commercialized Technologies to highlight in a success story. |
| 9 | Completion Date | The date when the contractual period of performance ends (expiration date) or the date when project closeout documentation is recorded (if applicable), whichever comes first. | If a project is terminated prematurely, the completion date becomes the termination date. |
| 10 | Continuation  Patent Application | An application submitted after the filing of a non-provisional application that does not introduce new subject matter. It is used to present claims of subject matter originally disclosed, but not claimed, in the parent application. |  |
| 11 | Continuation in Part (CIP) Patent Application | An application to incorporate new subject matter with the original subject matter disclosed in a prior application. It must be filed during the pendency of the prior non-provisional/parent application, have at least one common inventor, and a new oath and declaration must be executed and filed by all of the inventors. |  |
| 12 | Continuing  Agreement | The agreement is active in a specified time frame and it was active during the time period just prior to the specified time frame. |  |
| 13 | Cooperative Research and Development Agreement (CRADA) | An agreement between one or more federal laboratories and one or more non-federal parties under which the Government, through its laboratories, provides personnel, services, facilities, equipment, intellectual property, or other resources and the non-federal parties also provide resources toward the conduct of specified research or development efforts. |  |
| 14 | Copyright | A form of intellectual property protected by federal law to the authors of "original works of authorship" including publications, works of art, software, movies, etc. Generally, it protects against copying by anyone who is not licensed to do so. |  |
| 15 | Copyright  Assertion | Generally, a copyright is deemed asserted when DOE patent counsel approves a request to assert copyright of specific copyrightable material for commercialization purposes or other transfer to third parties. CRADAs provide automatic approval to copyright, and a copyright is deemed asserted upon identification of copyrightable material. Similarly, asserting copyright on open source software does not require DOE patent counsel approval. | Does not include assertion of copyright in scientific and technical articles and similar works, which may be asserted without approval of the Contracting Officer. |

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|  | **Data Element** | **Definition of Data Element** | **Explanatory Notes**  **(if necessary)** |
| 16 | Divisional Patent  Application | An application submitted after the filing of a non-provisional/parent application for a distinct invention restricted from the pending application by the USPTO. |  |
| 17 | Domestic Patent | A grant or property right given by the U.S. government to an inventor. It provides the  Inventor the right to exclude others from making, using, selling and importing the invention for a certain period of time. | See "U.S. Patent." |
| 18 | Earned Royalty  Income (ERI) | The portion of royalty income based upon use of a licensed invention (usually, a percentage of sales or of units sold), rather than a license issue fee or a minimum royalty. | Any earned portion of a minimum royalty should be included in ERI. |
| 19 | Economic Contribution from Licensed Technologies | The value annually of the goods and services embodying DOE technologies that are produced and purchased by U.S. consumers. | Report the sum of licensing income for each commercialized licensed technology divided by an earned royalty rate. Licensing income for this purpose includes royalties based on sales, milestone payments after commercialization, equity obtained as a result of performance based milestones when converted to cash, or payments based on usage (e.g. royalties per unit or per volume processed). Licensing income in this case does not include the license issue fee, any other payments before the technology is utilized or equity received in lieu of an up-front fee. The earned royalty rate will be based on the license rate for those with royalties based on sales. All others will use an imputed royalty rate of 2% with the exception of equity redemption receipts based on performance, which will be included in the total as lump sum, not divided by a royalty rate.  The imputed royalty rate of 2 % was selected in order to conservatively estimate the value of goods and services embodying licensed DOE technologies, when that value cannot be easily computed from royalty on sales reporting; median royalty rates are typically in excess of 4 % ( see, e.g., Russel L. Parr, "Royalty Rates and License Fees for Technology," les Nouvelles, March 2009, p. 16 and Robert Goldsheider, John Jarosz and Carla Mulhern, "Use of the 25 Per Cent Rule in Valuing IP," les Nouvelles, December 2002, p. 129). |

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|  | **Data Element** | **Definition of Data Element** | **Explanatory Notes**  **(if necessary)** |
| 20 | Effective Date | The latter of the execution date, the date DOE approval is granted (if necessary), or the date funds are received (if applicable). |  |
| 21 | Elapsed Time for  License Execution | The time elapsing from the date the first written terms and conditions are disclosed to a licensee to the date the license was executed. | Same definition as "Licensing Speed." Do not include “Shrink-wrap Software” in this calculation. Include all licenses. Exclude Option Agreements. |
| 22 | Encumbrance | A claim or legal right attached to and binding intellectual property. |  |
| 23 | European Patent Cooperation Treaty Application | An application filed under a multilateral treaty between the U.S. and European Contracting States whereby one application is filed instead of filing several separate national and/or regional patent applications. The European Patent Office conducts an examination and may issue a European Patent that is recognized in member countries. This application, like the PCT application, offers the option of establishing a priority filing date that is equivalent to the date of a previously filed national application (typically a U.S. patent application). In addition, the PCT process also allows the filing of a European Patent Application instead of filing separate nationalized PCT applications in individual European member countries. |  |
| 24 | Exclusive License | Contains provisions granting intellectual property rights exclusively to licensee (i.e., the licensor may not grant another commercial license to those intellectual property rights). If a license grants both exclusive rights to some intellectual property and nonexclusive rights to other intellectual property, that license is characterized as a partially exclusive license. Note that the grant of a government use license and/or retained rights by the licensor on its behalf and on behalf of non-profit, governmental or academic users for non-commercial use do not cause an otherwise exclusive license to be nonexclusive. |  |
| 25 | Execution Date | The date the last required signature is recorded on the agreement. |  |
| 26 | Expiration Date | The date when the contractual period of performance ends. |  |
| 27 | Field-of-Use | Grant of intellectual property rights for a particular application or in a specific geographical location. |  |

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|  | **Data Element** | **Definition of Data Element** | **Explanatory Notes**  **(if necessary)** |
| 28 | Foreign Partner | An entity directly or indirectly owned or controlled by a foreign company or government. |  |
| 29 | Foreign Patent | A grant or property right given by a foreign government to an inventor or assignee. It provides the inventor or assignee the right to exclude others from making, using, selling and importing the invention for a certain period of time. |  |
| 30 | Foreign Patent  Application | A form filed with a foreign national patent office for protection of an invention. | For reporting purposes, include specific country/regional filings. Exclude European  Patent Applications, PCT and PCT non-priority applications, nationalized PCT filings, EPO filings and filings under other “international” processes. |
| 31 | Funds-In | Cash contributions provided by the non-federal partner in a CRADA or WFO project. |  |
| 32 | Government  Contribution | Cash contributions provided by the federal government in a CRADA. |  |
| 33 | Hybrid License | A license that provides rights for more than one type of intellectual property. |  |
| 34 | Income-Bearing  License | License containing provisions for payments of licensing income. |  |
| 35 | In-Kind Funding | Non-cash contributions provided by the non-federal partner in a CRADA. |  |
| 36 | Intellectual  Property (IP) | Inventions and original pieces of work that become assets of an organization when protected from uncontrolled widespread dissemination or misuse. IP includes, but is not limited to, invention disclosures, patents, copyrights, tangible research product, mask works, trademarks, and trade secrets. |  |
| 37 | Internal Use Only  Copyright License | A license between the copyright holder of computer software and the licensee, granting the right to use licensed software internally without the right to distribute. | Does not permit the licensee to redistribute software or derivative works. Includes site licenses, single internal use or multiple internal use licenses (server based, application based  or user based). Includes both standardized and negotiated license agreements. |
| 38 | Invention | A new device, method, or process developed from study and experimentation. (Source: American Heritage Dictionary Second College Edition). |  |

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|  | **Data Element** | **Definition of Data Element** | **Explanatory Notes**  **(if necessary)** |
| 39 | Invention  Disclosure | Declaration and initial record of an invention. |  |
| 40 | License Agreement | A contract providing the right to use, make, distribute, reproduce, and/or import intellectual property for commercial or non-commercial purposes without being sued for infringement. | For reporting purposes, this refers to fee- bearing licenses, including options and bailments. Excludes license amendments. No cost software licenses should be reported separately. |
| 41 | License Option  Agreement | A contract providing a right to enter into a license agreement during a specified period of time. |  |
| 42 | Licensee Economic Contribution | A value calculated by dividing earned royalty income by the license’s royalty rate | This measure is intended to partially represent the licensee’s economic contribution to the public due to DOE’s licensed technology. It should be calculated by individual license and the total reported by facility. |
| 43 | Licensing Income | Income from license issue fees, maintenance fees, milestone payments, paid-up license fees, minimum annual royalties, earned royalties, and similar fees. | For reporting purposes, licensing income does not include cost reimbursements or income from technical consulting provisions contained in the license agreement (if applicable). |
| 44 | Licensing Income  Disposition | The distribution of licensing income for inventor incentives, technology transfer activities, education, and R&D, as permitted under the facility operating contract. |  |
| 45 | Licensing Speed | The time elapsing from the date the first written terms and conditions are disclosed to a licensee to the date the license was executed. | See "Elapsed Time for License Execution.. Include all licenses. Exclude Option Agreements. |
| 46 | Mask Works | Topological drawings used to manufacture integrated circuits and their embodiments in the integrated circuits. |  |
| 47 | Material Transfer  Agreement | An agreement (non-fee bearing) permitting the transfer of biological materials or other tangible research products between laboratories, universities, private companies, typically for research or educational purposes. Cost reimbursement for providing the material (e.g., shipping) may be included. Ownership of the material remains with the provider. | For similar but fee-bearing agreements, see  “Bailment.” |

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|  | **Data Element** | **Definition of Data Element** | **Explanatory Notes**  **(if necessary)** |
| 48 | Minimum Annual  Royalty | A required minimum royalty payment that is in effect until the licensee reaches a certain level of Earned Royalty Income. | If Earned Royalty Income is less than the minimum required payment, the earned portion should be recorded as ERI and the remaining amount should be recorded as Minimum Annual Royalty. |
| 49 | Modification | A change in work scope, funding, contribution, or performance period that is recorded in the agreement. | See "Amendment." |
| 50 | Nationalized Patent Cooperation  Treaty Application | A national phase application filed in a Contracting Country’s patent office, which is based upon and benefits from an earlier filed PCT application. |  |
| 51 | New Agreement | The effective date of the agreement falls within a specified time frame. |  |
| 52 | No-cost Software  License | Software copyright license provided at no charge. Includes, for example, no-cost end user  license agreements, no-cost distribution license agreements, Software Government Use  Notices, and Open Source License Agreements. |  |
| 53 | Non-Exclusive  License | Contains provisions granting intellectual property rights to licensee, but allowing additional commercial licenses to those intellectual property rights (i.e., any license other than an exclusive license). If a license grants both exclusive rights to some intellectual property but also provides nonexclusive rights to other intellectual property, that license is characterized as a partially exclusive license. Note that the grant of a government use license and/or retained rights by the licensor on its behalf and on behalf of non-profit, governmental or academic users for non-commercial use do not cause an otherwise exclusive license to be nonexclusive. |  |
| 54 | Non-Income  Bearing License | License that does not contain provisions for payments of licensing income. |  |
| 55 | Open Source  Software Product | Number of different software products distributed under and Open Source license (such as the GPL, LGPL, BSD, or MIT license) where the license does not restrict any party from selling or giving away the software as a component of an aggregate software distribution containing programs from different sources. This license does not require a royalty or other fee. | Reference is the Open Source Initiative at:  <http://www.opensource.org/docs/definition.php> |
| 56 | Parent Patent  Application | The earliest/original application of a family of related patent applications having at least one common inventor in which a priority date is being claimed with respect to common subject matter. |  |
|  | **Data Element** | **Definition of Data Element** | **Explanatory Notes**  **(if necessary)** |
| 57 | Partially Exclusive  License | Contains provisions (1) granting some intellectual property rights exclusively to a licensee (i.e., the licensor may not grant another commercial license to those intellectual property rights); and (2) granting other intellectual property rights nonexclusively to a licensee (i.e., the licensor may grant commercial rights to a third party). Note that the grant of a government use license and/or retained rights by the licensor on its behalf and on behalf of non-profit, governmental or academic users for non-commercial use do not cause an otherwise exclusive license to be nonexclusive. |  |
| 58 | Partner Type | Refers to type of entity, e.g., Federal Government, Non-Profit, Small Business, Large Business, State Government, Local Government, Institution of Higher Education, Foreign, and Consortium. |  |
| 59 | Patent Cooperation Treaty (PCT) Application | An application filed under a multilateral treaty between the U.S. and other Contracting States designating those Contracting States in which patent protection may ultimately be sought. It defers the need to file several separate national and/or regional applications. The PCT application offers the option of establishing a priority filing date that is equivalent to the date of a previously filed national application, typically a U.S. application. Beginning in April of 2002, PCT applications will automatically remain in effect for 30 months in most Contracting States. If a nationalized PCT application is not filed during this time period, the ability to file nationally is lost and the PCT application is not subject to revival. | The priority filing date can reflect the date of a provisional application. |
| 60 | PCT Non Priority | PCT application that does not establish a priority filing date from a previously filed patent application. |  |
| 61 | PCT Demand for  Examination | Request to have a receiving office (either the USPTO or the European Patent Office) review an application and provide comments on allowability of the claims. This determination is not binding. Beginning in April of 2002, the Demand for Examination is no longer a required step  in the PCT application process. |  |
| 62 | Personnel  Exchange | A limited-term exchange of personnel between a non-federal organization and a DOE laboratory/facility to share knowledge, supported by a written agreement, with or without funding. | For reporting purposes, each “one-way” exchange is counted. |
| 63 | Provisional Patent  Application | An application containing a specification and any required drawings (no claims are required) establishing a priority date. The application is not examined for patentability and is automatically abandoned 12 months after the filing date. |  |
| 64 | Reimbursement for Legal and Other Direct Expenses | Payment by licensee to licensor for costs associated with managing and protecting intellectual property, including patenting costs. | For reporting purposes, these reimbursements should not be included in licensing income. |
|  | **Data Element** | **Definition of Data Element** | **Explanatory Notes**  **(if necessary)** |
| 65 | Reissue Patent  Application | An application for a patent to take the place of an unexpired patent that is defective in one or more specifics. |  |
| 67 | Royalty Income | Income from minimum annual royalties, earned royalty income and milestone fees. Does not include issue, maintenance, or paid-up license fees. |  |
| 68 | Royalty-Bearing  License | License containing provisions for royalty income. |  |
| 69 | Science Education  Activities | Individuals participating in the following areas:  (1.) Undergraduate Interns  (2.) Special Short Course Technical School Attendees such as "Microscope School" etc. (presuming these schools are for several days or a week or more)  (3.) Graduate Students involved in thesis work on site  (4.) Post Doctoral Appointees  (5.) Faculty - Student Teams -- Under the "FAST" Program. This is typically a faculty member and two students.  (6.) Teacher Education Programs | For reporting purposes the number of individuals participating should be counted. |
| 70 | Small Business | A widely used rule of thumb is that a small business has less than 500 employees. Some  industry exceptions to the 500-employee rule of thumb include: utilities, chemical manufacturing and computer manufacturing.  Other requirements for qualification as a small business concern under 13 CFR 121.105 include:   For profit;   With a place of business in the U.S; and   Operating primarily in the U.S. or making significant contribution to the U.S. economy through payment of taxes, etc. | The Small Business Association develops maximum thresholds based on industry averages. The official procurement definitions of a small business in each industry category can be found in SBA's Small Business Size Regulations, 13 CFR 121, or the Table of Size Standards at [http://www.sba.gov/size/indextableofsize.html.](http://www.sba.gov/size/indextableofsize.html) |
| 71 | Software Distribution Copyright License | A license between the copyright holder of computer software and a licensee, granting the right to redistribute licensed software and/or embed licensed software into licensee product or application with the intent to release, distribute and/or sell to third party customers. | Permits the licensee to redistribute original software and/or a derivative work. Permits redistribution, regardless of format (source code, executable, object code, binaries). |

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|  | **Data Element** | **Definition of Data Element** | **Explanatory Notes**  **(if necessary)** |
| 72 | Start Date | The date when work actually begins. | For reporting purposes, the contractual period of performance begins on the "Effective Date" rather than the "Start Date." The "Effective Date" should be used when determining  whether an agreement is "New," "Continuing" or "Active." |
| 73 | Start-Up Company | New company formed in the reporting year (with or without laboratory employee involvement) based on a license for laboratory intellectual property and with a business plan based largely on DOE/NNSA technology. |  |
| 74 | Success Stories | Text descriptions of favorable outcomes of technology partnership activities. |  |
| 75 | Tangible Research  Product | Tangible material results of research distributed through a Bailment or Materials Transfer  Agreement. |  |
| 76 | Technical Assistance Program | Provides short-term technical assistance to industry with emphasis being placed on assisting small businesses. |  |
| 77 | Technical/Scientific  Results Publication | A technical/scientific paper published in a primary journal and reviewed by scientific peers. | For reporting purposes the publication date should be used to determine in which period to report. |
| 78 | Technology Maturation Program | A program designed to allow researchers to perform additional research and development on selected technologies to demonstrate commercial application. |  |
| 79 | Termination for  Cause | Termination of a license agreement due to licensee's failure to meet contractual obligations. |  |
| 80 | Total Value | The value of all contributions to an agreement over the entire performance period. Depending on the agreement, this may include federal funding and funds-in and in-kind contributions from non-federal sources. |  |
| 81 | Trade Secret | Information not generally known and not readily ascertainable that provides a competitive advantage. Protected as long as it remains secret. Examples include formulas, marketing plans, processes, techniques, technical or specialized knowledge. Defined by state law. |  |

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|  | **Data Element** | **Definition of Data Element** | **Explanatory Notes**  **(if necessary)** |
| 82 | Trademark | A word or symbol used to distinguish goods or services of one company from those of another (examples: Kleenex; Xerox; Coca-Cola). |  |
| 83 | Unique Small Business | Number of unique small business entities that the Lab has conducted Technology Transfer agreements with during a certain period of time. | Each entity, regardless of the number, age (new or modified), or types of agreements (WFO, CRADA, License, ACT), should only be counted once. |
| 84 | U.S. Patent | A grant or property right given by the U.S. government to an inventor. It provides the inventor the right to exclude others from making, using, selling and importing the invention for a certain period of time. | Same definition as "Domestic Patent." |
| 85 | U.S. Patent  Application | A form filed with the U.S. Patent and Trademark Office for protection of an invention. | For reporting purposes, include parent, continuation in part, continuation and divisional applications. Exclude provisional filings and requests for continued examination (formerly Continued Prosecution Application), and reissue filings. |
| 86 | Users | *Users are researchers who propose and conduct peer-reviewed experiments at, or provide collaboration for an approved project of a DOE-designated user facility or Deployment User Facility.*  *The primary type of user is a* ***Badged User****, i.e., a researcher who conducts experiments within the facility,*  ***Other Users*** *are:*  *(1) Remote User—a researcher who has been granted authority to remotely produce data (this excludes persons who can “look at data”). (2) Off-Site User—a researcher to whom the facility provides custom-manufactured materials, tools, or devices that the facility has unique or unusual capabilities to fabricate (this applies only to such activities at Nanoscale Science Research Centers).*  *(3) Collaborator---a researcher on an approved project providing collaboration, with the authorization of the Principal Investigator or Project Manager.* | For annual totals, an individual is counted as one user at a particular facility no matter how often or how long the researcher conducts experiments at the facility, or provides collaboration, during the fiscal year. A Badged User cannot also be counted as an Other User. All users must be included in the user breakout totals by U.S. or foreign.  Users must submit a successful, peer-reviewed research proposal, conduct experiments or collaborate with the authorization of the Principal Investigator or Project Manager. Users do not include individuals who pay to have specialty services performed or visit the facility for tours or educational purposes.  When possible, labs are to utilize the definition of users as provided by the DOE sponsoring office. |
|  | **Data Element** | **Definition of Data Element** | **Explanatory Notes**  **(if necessary)** |
| 87 | User Facility | Any DOE facility, including associated equipment and instruments, officially designated as either a DOE-designated user facility or Deployment user facility. |  |
| 88 | Work For Others -  Non-Federal  Sponsors  Agreement  (WFO/NFS) | An agreement under which a federal facility performs work for a non-federal sponsor. |  |
| 89 | Work For Others -  Other Federal Agencies Agreement (WFO/OFA) | An agreement under which a federal facility performs work for another federal agency. |  |
| 90 | Work For Others  (WFO) | The performance of work for non-DOE entities by DOE/contractor personnel and/or utilization of DOE facilities. |  |

**III**

**Reporting Standard**



October 20, 2014

**Fiscal Year Data Output**

|  |  |  |  |
| --- | --- | --- | --- |
| **Line Number**  **Line Number** | **Reporting Item** | | **Explanatory Remarks** |
|  | | | |
| **CRADAs** | | | |
|  | | | |
| 1 | Active CRADAs | Active agreements = new agreements + continuing agreements. | |
| 2 | New CRADAs |  | |
| 3 | New CRADAs with Small Businesses |  | |
| 4 | Actual CRADA Participant Funds-in | During the fiscal year, for active CRADAs (Rounded to nearest dollar) | |
| 5 | Active CRADAs with Small Business |  | |
|  | | | |
| **Licensing – Income-Bearing Only, Except as Noted** | | | |
|  | | | |
|  | **Active Income-Bearing Licenses** | Licenses that include both patents and copyrights (hybrid licenses) are reported as patent licenses, and not included in the number of copyright licenses. Exclude License Amendments. Exclude No-Cost Software Licenses. Report those income bearing licenses active at any time during the fiscal year. Active agreements = new agreements + continuing agreements. | |
| 6 | Patent Licenses |  | |
| 7 | Copyright Licenses |  | |
| 8 | Other Licenses |  | |
| 9 | Total Active Income Bearing Licenses |  | |
|  | | | |
|  | **New Income-Bearing Licenses** | New agreement = Active agreements – continuing agreements | |
| 10 | Patent Licenses |  | |
| 11 | Copyright Licenses |  | |
| 12 | Other |  | |
| 13 | Total New Income Bearing Licenses |  | |
| 14 | Exclusive Income Bearing Licenses | Report the number of exclusive, income bearing licenses included within the total number of active income bearing licenses. Exclude any partially exclusive licenses. | |

|  |  |  |  |
| --- | --- | --- | --- |
| **Line Number**  **Line Number** | **Reporting Item** | **Explanatory Remarks** | |
| 15 | Partially-Exclusive Income Bearing Licenses |  | |
| 16 | Non-Exclusive Income Bearing Licenses |  | |
|  | | | |
| **Licensing – Non-Income Bearing Only** | | | |
|  | | | |
|  | **Active Non-Income Bearing Licenses** | Licenses that include both patents and copyrights (hybrid licenses) are reported as patent licenses, and not included in the number of copyright licenses. Exclude License Amendments. Exclude No-Cost Software Licenses. Report those income bearing licenses active at any time during the fiscal year. Active agreements = new agreements + continuing agreements. | |
| 17 | Patent Licenses |  | |
| 18 | Copyright Licenses |  | |
| 19 | Other |  | |
| 20 | Total Active Non-Income Bearing Licenses |  | |
|  | | | |
|  | **New Non-Income Bearing Licenses** | New agreement = Active agreements – continuing agreements | |
| 21 | Patent Licenses |  | |
| 22 | Copyright Licenses |  | |
| 23 | Other Licenses |  | |
| 24 | Total New Non-Income Bearing Licenses |  | |
|  | | | |
| **Software Licensing** | | | |
|  | | | |
|  | **Software Licensing - No Cost Software Licenses** | Includes download and hard copy licenses. | |
| 25 | Open Source Products Available for Licensing |  | |
| 26 | Open Source Products Licensed |  | |
| 27 | Other No Cost Software Available for Licensing | Report software copyright licenses provided at no charge. Includes, for example, no-cost end user license agreements, no-cost distribution license agreements, Software Government Use Notices. Open Source License Agreements downloads are reported separately in previous line. | |
| 28 | Other No-Cost Software Licensed |  | |
| **Line Number** | **Reporting Item** | | **Explanatory Remarks** |
|  | | | |
| **Licensing** | | | |
|  | | | |
|  | **Licensing Income** | |  |
| 29 | Patent License Income | |  |
| 30 | Copyright License Income | |  |
| 31 | Other License Income | |  |
| 32 | Total License Income | |  |
| 33 | Elapsed Time for License Execution | | Average time elapsed from the date the first written terms and conditions are disclosed to a licensee to the date the license was executed (in days). |
| 34 | Total Licenses Granted to Small Businesses | | Only include new patent and commercial fee-bearing software licenses. Exempt end-user licenses. Exclude all Option Agreements and Open-Source Licenses. |
|  | | | |
|  | **Earned Royalty Income** | | Round to the nearest dollar. |
| 35 | Total Earned Royalty Income from Patent Licenses | |  |
| 36 | Total Earned Royalty Income from Copyright Licenses | |  |
| 37 | Total Earned Royalty Income from Other Licenses | |  |
| 38 | Total Earned Royalty Income | |  |
|  | | | |
| **Intellectual Property** | | | |
|  | | | |
|  | **Invention Disclosure and Patenting** | |  |
| 39 | Invention Disclosures | | Total Number for FY |
| 40 | U.S. Patent Applications Filed | | For reporting purposes, include parent, continuation in part, continuation and divisional applications. Exclude provisional filings and requests for continued examination (formerly Continued Prosecution Application), and reissue filings. |
| 41 | Foreign Patent Applications Filed | | For reporting purposes, include filings in specific countries. Exclude European Patent Applications, PCT and PCT non-priority applications, nationalized PCT filings, EPO filings, and filings under other international “provisional” processes. |
| 42 | Total Patent Applications Filed | |  |
| 43 | U.S. Patents Issued | | Do not report DOE cases |
| 44 | Foreign Patents Issued | |  |
| **Line Number** | **Reporting Item** | | **Explanatory Remarks** |
|  | | | |
| **Intellectual Property** | | | |
|  | | | |
| 45 | Total Patents Issued | |  |
| 46 | Number of Copyright Assertion Requests | |  |
|  | | | |
| **Work for Others** | | | |
|  | | | |
|  | **WFO Agreements – Non-Federal Sponsors (NFS)** | | Round to the nearest dollar. |
| 47 | Active NFS Agreements | |  |
| 48 | New NFS Agreements | |  |
| 49 | Active NFS Agreements with Foreign Sponsors | |  |
| 50 | Active NFS Agreements with Small Business | |  |
| 51 | NFS Funds-in | | Report the amount of NFS WFO funds-in during the Fiscal Year |
|  | | | |
| **User Facility Data** | | | |
|  | | | |
|  | **Projects** | |  |
| 52 | User Projects Awarded | | The number of projects or proposals for research at a user facility that were accepted by the facility or a DOE program (e.g., INCITE) over the fiscal year. Count all projects or proposals that have been awarded, regardless if the project or proposal has started. There may be multiple user projects per user agreement. |
| 53 | User Projects Awarded to Small Businesses | |  |
| 54 | User Projects Awarded to Industry | |  |

|  |  |  |
| --- | --- | --- |
| **Line Number** | **Reporting Item** | **Explanatory Remarks** |
|  | | |
| **User Facility Data** | | |
|  | **Users** | See definition of users in Section II. For annual totals, an individual is counted as one user at a particular facility no matter how often or how long the researcher conducts experiments at the facility, or provides collaboration, during the fiscal year. A Badged User cannot also be counted as an Other User. All users must be included in the user breakout totals by U.S. or foreign. Users must submit a successful, peer-reviewed research proposal, conduct experiments or collaborate with the authorization of the Principal Investigator or Project Manager. Users do not include individuals who pay to have specialty services performed or visit the facility for tours or educational purposes.  When possible, labs are to utilize the definition of users as provided by the  DOE sponsoring office. |
| 55 | U.S. Users |  |
| 56 | Foreign Users |  |
| 57 | Total Users |  |

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Line Number** | | **Reporting Item** | | **Explanatory Remarks** |
| **Other Data Elements** | | | | |
| 58 | | | Total Number of Unique Small Businesses Collaborating with the Labs | Includes small businesses that labs collaborate with on several activities. i.e.- If small business “A” works with Lab “Y” on a CRADA in Q1 and a WFO in Q4, then small business “A” will be counted as one unique small business. This includes new and active patent licenses, CRADA, WFO and commercial fee-bearing software licenses. Exempt end-use licenses. Excludes all Option Agreements, Material Transfer Agreements, and Memorandums of Understanding. | |
| 59 | | Economic Contribution from Licensed Technologies | Report the sum of licensing income for each commercialized licensed technology divided by an earned royalty rate. Licensing income for this purpose includes royalties based on sales, milestone payments after commercialization, equity obtained as a result of performance based milestones when converted to cash, or payments based on usage (e.g. royalties per unit or per volume processed). Licensing income in this case does not include the license issue fee, any other payments before the technology is utilized or equity received in lieu of an up-front fee. The earned royalty rate will be based on the license rate for those with royalties based on sales. All others will use an imputed royalty rate of 2% with the exception of equity redemption receipts based on performance, which will be included in the total as lump sum, not divided by a royalty rate.  The imputed royalty rate of 2 % was selected in order to conservatively estimate the value of goods and services embodying licensed DOE technologies, when that value cannot be easily computed from royalty on sales reporting; median royalty rates are typically in excess of 4 % ( see, e.g., Russel L. Parr, "Royalty Rates and License Fees for Technology," les Nouvelles, March 2009, p. 16 and Robert Goldsheider, John Jarosz and  Carla Mulhern, "Use of the 25 Per Cent Rule in Valuing IP," les Nouvelles, December 2002, p. 129).  Round to the nearest dollar. | |
| 60 | | Number of Startup Companies | Started during the FY and established with business plans based largely on  DOE/NNSA-funded Technologies. | |

|  |  |  |
| --- | --- | --- |
| **Line Number** | **Reporting Item** | **Explanatory Remarks** |
| **Other Data Elements** | | |
| 61 | Commercialized Technologies | Using the definition of Commercialized Technologies, facility technology transfer representatives should use this guidance and their judgment to report the number of technologies that qualify during the Fiscal Year. Some examples are fairly obvious, such as a license that has received or is receiving an earned royalty income. Other technologies licenses that provide for payments based on usage or time should also be included if they conform to the definition, e.g., those requiring annual license fees, milestone payments or equity obtained as a result of performance based milestones.  Finally, there may be “other situations” where a technology is not licensed but is being commercially used. For these situations, the facility should include a description/explanation of why the technology qualifies for inclusion. The Technology Transfer Policy Board will be the final arbitrator for whether these “other situations” should be counted. In addition, facilities are encouraged to select one or more of these Commercialized Technologies to highlight in a success story. |
| 62 | Personnel Exchanges Initiated | For reporting purposes, each “one-way” exchange is counted. |
| 63 | Science Education Activities Performed | Individuals participating in the following areas: (1.) Undergraduate Interns  (2.) Special Short Course Technical School Attendees such as "Microscope School" etc. (presuming these schools are for several days or a week or more)  (3.) Graduate Students involved in thesis work on site  (4.) Post Doctoral Appointees  (5.) Faculty - Student Teams -- Under the "FAST" Program, I understand this is typically a faculty member and two students.  (6.) Teacher Education Programs |
| 64 | Technical Scientific Results Published | A technical/scientific paper published in a primary journal and reviewed by scientific peers |
| 65 | Literature Review and Summary | Include title and reference for all literature reviews of peer reviewed publications completed by the lab that assessed the economic impact of federal technology transfer efforts. |
| 66 | Number of Options Signed as Part of America's Next Top Energy Innovator | Exclude modifications, only count new options. |
| 67 | Number of Options Converted to Licenses as Part of America's Next Top Energy Innovator |  |
| 68 | Number of New Material Transfer Agreements |  |
| 69 | Number of Active Material Transfer Agreements |  |