

General Terms and Conditions
Technology Innovation Program (TIP)

December 2010

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General Terms and Conditions
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1. ORDER OF PRECEDENCE OF AWARD TERMS AND CONDITIONS

Where the terms of the award and proposal, including documentation submitted after the proposal, differ, the terms of the award shall prevail. The Recipient is obligated to bring to the attention of the NIST Grants Specialist any perceived conflicts in the terms and conditions of the award.

2. APPLICABILITY

The terms and conditions of this award, as set forth in the award agreement, apply to all Recipients of Technology Innovation Program (TIP) Cooperative Agreements. The TIP regulations define Recipient as an organization receiving an award directly from NIST under the Program. Since Joint Venture Administrators (leads) bind Joint Venture members directly to the award using the Power of Attorney granted in the Joint Venture Agreement, Joint Venture members identified in the Special Award Conditions are Recipients.

3. AUTHORITY TO MODIFY

The NIST Grants Officer is the **ONLY** authorized agent at NIST with the authority to bind the Federal Government and to take actions to amend, suspend, terminate and obligate funds to the award. In the case of a joint venture (JV), the NIST Grants Officer may take enforcement action directly with an individual JV member, as warranted, as well as with the JV as a whole.

4. REQUIREMENTS FOR CONTINUING FINANCIAL ASSISTANCE

A. At any time within the life of this award should any Recipient become a large-

sized business as defined in 15 C.F.R. § 296.2, the **Recipient shall immediately notify the NIST Grants Officer of that fact, in writing.** Any such Recipient may be required to reimburse to NIST any costs incurred and charged to the TIP project by the Recipient while a large-sized business.

B. At any time within the life of this award should any Recipient cease to have a majority ownership by individuals who are citizens of the United States, the **Recipient shall notify the NIST Grants Officer of that fact, in writing, within thirty (30) calendar days of such change in ownership. The notification shall include the information specified in General Term and Condition 10.**

5. NIST PROJECT MANAGEMENT TEAM

The NIST Project Management Team (PMT) includes a TIP Project Manager and a NIST Grants Specialist. The TIP Project Manager is responsible for:

- A. General and technical oversight and project management functions associated with the award.
- B. Arranging kickoff, annual review, and final closeout meetings.
- C. Monitoring the project to ensure that it is executed in accordance with the proposal and this award; this includes analyzing the quarterly, annual, and final reports, consulting with other member of the PMT to assess progress, and introducing the Recipient to and coordinating with a TIP Impact Specialist regarding project impacts for the TIP

annual report and other impact reporting requirements.

- D. Recommending appropriate action to the NIST Grants Officer on any proposed changes in budget, technical plan (e.g., milestones, decision points, tasks, or technical approach), or schedule, or if the project is failing to meet its objectives, or other compliance issues.

6. SUBSTANTIAL INVOLVEMENT

NIST has selected the cooperative agreement funding instrument for this project, consistent with Final Office of Management and Budget Guidance Implementing the Federal Grant and Cooperative Agreement Act, 43 Fed. Reg. 36860 (August 18, 1978). Through the use of the cooperative agreement, TIP fosters public/private partnerships to accomplish a public purpose to support, promote, and accelerate innovation in the United States through high-risk, high-reward research in areas of critical national need. TIP plays a substantial role beyond the levels required normally for program stewardship of grants. This includes but is not limited to monitoring of and advising on the technical progress against established milestones and maintaining fidelity against the TIP award and evaluation criteria, and the comprehensive tracking of project performance and impact statements for use in the TIP Annual Report.

Refer to General Term and Condition 11, "Notification and Prior Approval Requirements" for information on specific activities requiring NIST's written, prior approval.

7. TECHNICAL PERFORMANCE AND IMPACT REPORTS & FINANCIAL REPORTS

A. Technical Performance and Impact Reports:

The Recipient shall submit technical performance and impact reports in triplicate (one original and two copies, if color portions of the report are not legible in black and white the copies should include those portions in original color). The original shall be submitted to the NIST Grants Officer and the two copies shall be submitted to the TIP Project Manager. Technical Performance and Impact Reports shall be submitted in the same frequency, described below, as the SF-425 (Federal Financial Report) and shall contain information as prescribed in 15 C.F.R §14.51. (See Attachment for Optional Format Guidelines and Required Information for Quarterly Technical Performance and Impact Reports.) Additional venues for reporting impact information are under development and may be provided at a later time, this is described in more detail in the Attachment and under General Term and Condition 10, which includes Special Studies.

For JVs, the JV Administrator (lead) is responsible for conducting a review of the technical and impact report to assure that each JV member's activities [including the contributions from contractor(s) and Subrecipient(s)] are appropriately captured and consolidated prior to submission of the full report. This review is expected to note whether or not the information being reported is consistent with each JV member's activities as part of the approved technical plan and budget. The JV Administrator may highlight any discrepancies in the report, if unable to resolve them prior to submitting the report to NIST.

B. Financial Reports (SF-425)

(Also reference General Term and Condition 9 for more information.)

Article A.01 of the *Department of Commerce (DoC) Financial Assistance Standard Terms and Conditions* dated March 2008 shall apply as revised below:

- (1) The Recipient shall submit an SF-425 (Federal Financial Report) on a calendar quarter basis for the periods ending March 31, June 30, September 30, and December 31, or any portion thereof, unless otherwise specified in a Special Award Condition. Reports are due no later than thirty (30) calendar days following the end of each reporting period. A final SF-425 shall be submitted within ninety (90) calendar days after the expiration date of the award.
- (2) All financial reports shall be submitted in triplicate. One original and one copy should be submitted to the NIST Grants Specialist and one copy should be submitted to the TIP Project Manager.

8. AWARD CHARGES

- A. By signing this award the Recipient agrees to ensure that only actual direct costs incurred will be charged to the award and that all costs will be reasonable, allocable, and allowable in accordance with the applicable Federal Cost Principles (see 15 C.F.R. §14.27) and General Term and Condition 12. The Recipient shall also ensure that all salaries/wages (technical and administrative), travel, equipment, materials/supplies, contractors, other, and indirect costs proposed and to be incurred under this award are consistent with costs incurred for like or similar items on all other Federal and non-Federal projects or cost centers (exclusive of any profits or fees) of the Recipient, including each JV member. All direct costs charged to the project and required cost share, both direct and indirect costs, are subject to audits.
- B. Where a Recipient's normal accounting practice makes use of blended or average labor rates in lieu of actual salaries, the Recipient must provide the NIST Grants Officer with a copy of its current, Federally audited and approved pricing or rate agreement. The Recipient must, throughout the project period of the award, maintain

contemporaneous records of the actual labor hours expended on the project, and ensure that the appropriate labor schedule and category are used. Only actual incurred costs are allowed to be charged to the project and are subject to audits.

9. COST SHARING

- A. The non-Federal cost sharing commitments must be met in accordance with the approved budget. The non-Federal cost sharing, whether in cash (as direct or indirect costs) or third party in-kind contributions, is expected to be paid out at the same general rate as the Federal funds, throughout the award in accordance with the approved budget. Any cost sharing must be in accordance with the "cost sharing or matching" provisions of 15 C.F.R. Part 14. Costs included as cost sharing must be allocable to the project and allowable under the applicable Federal cost principles and General Term and Condition 12. Costs incurred as non-Federal cost sharing are subject to the same allowability requirements as Federally-funded costs and are subject to audits. A decrease in an approved indirect cost rate could impact the required cost sharing commitment, and could require either a decrease in the Federal share or an increase in the direct cost share of a Recipient or Joint Venture member.
- B. For JVs, the JV Administrator (lead) is responsible for conducting a review of the SF-425s (Federal Financial Reports) for each JV member prior to submission of a consolidated SF-425 for the entire JV. This review must ensure that the financial information is consistent with each JV member's approved budget including each JV member's required cost sharing (direct and indirect costs). The JV Administrator must resolve any discrepancies in the financial information prior to submitting the consolidated SF-425 to NIST, and prior to making any withdrawal of funds and disbursement to the JV members. At the time of submission of the SF-425 by the JV

Administrator to NIST, the SF-425 must reflect that the overall non-Federal cost sharing is being met at the same rate that the Federal share is being spent.

- C. Each JV member is responsible for meeting its cost-sharing commitment throughout the award, at the same rate that the Federal share is being spent, in accordance with its approved budget. No JV member is responsible for the cost sharing commitment of any other JV member. However, with the agreement of the JV members, along with a budget revision request or notification to the NIST Grants Officer and Project Manager, a JV member that has exceeded its cost sharing commitment may propose to allow its excess cost sharing to be used to make up for the cost sharing deficit of another JV member, so that the overall annual JV cost sharing commitment is met.
- D. The disallowance of any costs as a result of an audit could result in a Recipient's failure to provide its required cost sharing commitment. Whether it is a single company recipient or a JV member, if audit disallowances result in a Recipient's failure to meet its required cost sharing, the Recipient shall reimburse the Federal Government for any accounts receivable resulting from such disallowance, regardless of the Federal funding amount, if any, that the Recipient may have received under the award.

10. KICK-OFF MEETINGS, ANNUAL REVIEWS, AND CLOSEOUT MEETINGS, AND SPECIAL STUDIES

Each single company Recipient or Joint Venture member Recipient shall participate in kick-off, annual review, and closeout meetings. The TIP Project Manager will provide the Recipient with meeting instructions in advance of these meetings.

Consistent with the requirements of the Government Performance and Results Act of 1993, Recipients may be asked from time to time to participate in special information

requests or studies. All requests for information or participation in such studies will be in accordance with the Paperwork Reduction Act (PRA) requirements as implemented by 5 C.F.R. §1320, and will display a PRA approval number, if applicable.

11. NOTIFICATION AND PRIOR APPROVAL REQUIREMENTS

A. SINGLE COMPANY AND JOINT VENTURE RECIPIENTS

- (1) The Recipient must obtain prior written approval from the NIST Grants Officer for those actions set forth in 15 C.F.R. § 14.25, including but not limited to the following changes:
- a. Go/no go decision points at various project stages before subsequent stages of a project may continue, if specified in the Special Award Conditions.
 - b. Equipment purchases exceeding \$100,000, unless the purchase of such equipment is specifically identified in the **currently** approved project budget under the award.
 - c. Key personnel working on the project (including such positions as, Principal Investigator, Post Docs, and Project Managers).
 - d. Significant changes in technical scope from the original proposal.
 - e. Any use of human subjects, such as interactions with live human beings or the use of data, images, tissue, and/or cells/cell lines from human subjects.
 - f. Any use of vertebrate animals.
 - g. Actions described in 15 C.F.R. § 14.25(e), as NIST does **NOT** waive the

prior approval requirements for such actions.

- (2) Notwithstanding 15 C.F.R. § 14.25(f) and Section A.04.b. of the Department of Commerce Financial Assistance Standard Terms and Conditions (March 2008), Recipients must obtain prior written approval from the NIST Grants Officer with respect to budget changes involving the transfer of funds among direct cost categories or between JV members if the amount of the transfer exceeds 10% of the approved annual budget for any single Recipient or JV member for an approved project year.
- (3) Should any ownership or name change and/or dissolution of any Recipient occur, including but not limited to mergers, acquisitions, change resulting in majority ownership by non-U.S. citizens, etc., the Recipient shall notify the NIST Grants Officer and TIP Project Manager of that fact, in writing, within thirty (30) calendar days of such change.

In each instance, the notification must include the following information:

- a. Date of final acquisition, merger, name change, or change resulting in majority ownership by non-U.S. citizen(s), etc.
- b. Name and address of any new foreign parent(s) and for each foreign parent, the percentage of ownership for each parent.
- c. If the change results in majority ownership by non-U.S. citizen(s), the owner(s) and percentage of ownership for each.
- d. Confirmation that the Recipient intends to complete its assigned tasks with the same commitment and at the same location.

- e. Description of how this change in ownership will affect the project's projected impacts/benefits to the United States.
- (4) As required in General Term and Condition 4, at any time within the life of this award should any Recipient become a large-sized business as defined in 15 C.F.R. § 296.2, the Recipient shall immediately notify the NIST Grants Officer of that fact, in writing.

B. JOINT VENTURES ONLY

- (1) Prior written approval of the NIST Grants Officer is required for any substitution and/or addition of JV members, name change of any JV member, change in JV Administrator, or revision to JV Agreement. However, any deletion of a JV member requires immediate notification to the NIST Grants Officer and TIP Project Manager.
- (2) Proposed new JV members may not enter into any obligation, incur any expenditure, or engage in any activity that involves a commitment of Federal funds and cost share under this award until the NIST Grants Officer has provided formal acceptance, by an Amendment to the award, of the new JV member and the revised JV Agreement, which requires NIST Counsel's review and approval.
- (3) The Recipient shall notify the NIST Grants Officer and TIP Project Manager within thirty (30) days of any withdrawal of any JV member. The notification shall include the following information:
 - a. Date of the JV member's withdrawal.
 - b. Circumstances of the departure.
 - c. Plans, if any, for replacing the departing JV member.
 - d. An explanation of how this change will affect the project (e.g., technical tasks, technical plan, budget, cost share, etc).

When the withdrawal or other removal of a JV member from the joint venture causes the joint venture to no longer fall within the statutory and regulatory definitions of a joint venture under the Program, the project must be suspended until the NIST Grants Officer has provided formal approval, by an Amendment to the award, of a new joint venture member and the revised JV Agreement. During the suspension period, the Recipient may not continue to enter into obligations, incur expenditures, and/or engage in any activity that involves a commitment of Federal or cost share funds under this award.

12. UNALLOWABLE PROJECT COSTS

In addition to unallowable costs in the applicable Federal Cost Principles, costs designated unallowable in Chapter 1, Section D.5 of the April 2010 TIP Proposal Preparation Kit will be unallowable under this award.

13. EQUIPMENT

Upon expiration of the project period, the Recipient shall submit to the NIST Grants Officer an inventory of equipment acquired under the award as prescribed in 15 C.F.R. §14.34, along with an "Equipment Disposition Certification." If the NIST Grants Officer approves continued use of the equipment, the Recipient shall report to NIST every two years the condition of the equipment as long as the current fair market value is more than \$5,000.

For Joint Venture awards, title to any equipment purchased under the award, including intangible property that meets the definition of equipment in 15 C.F.R. paragraph 14.2(n), that may be in the name of a departing JV member, and that is vital to the project, shall be transferred to another JV member as instructed by the JV Administrator for continued use on the project. The JV shall make compensation to the departing JV member for its contribution to the purchase of the

equipment by applying its percentage of the cost of the equipment to the current fair market value of the equipment. Should the equipment no longer be needed on the project, the departing JV member shall request disposition instructions in accordance with 15 C.F.R. §14.34.

14. NON-COMPLIANCE WITH STATUTORY PURPOSE

If NIST determines that the statutory purposes of research and development under 15 U.S.C. § 278n can no longer be served (e.g., the project no longer has strong potential to address areas of critical national need through high-risk high-reward research, as defined under the statute and the applicable Federal Funding Opportunity Notice), the Recipient shall be deemed in material non-compliance with award requirements. As a result, NIST may terminate the award pursuant to 15 C.F.R. §14.61.

15. INSTRUCTIONS FOR INTEREST PAYMENT

This award is subject to 15 C.F.R. §14.22 requiring recipients of Federal financial assistance to maintain advances of Federal funds in interest bearing accounts. Interest earned on Federal advances deposited in such accounts (with the exception of \$250 per year, which may be retained for administrative expenses) shall be remitted promptly.

In keeping with Electronic Funds Transfer rules (31 C.F.R. §206), interest should be remitted to the Department of Health and Human Services' (HHS) Payment Management System through an electronic medium such as the FEDWIRE Deposit System. Electronic remittances should be in the format and should include any data that are specified by the HHS as being necessary to facilitate direct deposit in HHS' account at the Department of Treasury. The following website provides further instructions:

http://www.dpm.psc.gov/grant_recipient/funding_requests/returning_funds.aspx?

It is the Recipient's responsibility to calculate accrued interest on the excess Federal funds on hand from the date of the last payment made on this award. The minimum annual interest rate to be assessed is the Department of Treasury's Current Value of Funds Rate found at <http://www.fms.treas.gov/cvfr/index.html>

16. AUDITS

Project audits (of Federal and non-Federal funds) are required for all TIP award Recipients except when those Recipients are required to comply with the Single Audit Act of 1996 and the audit requirements of Office of Management and Budget (OMB) Circular A-133, "Audits of States, Local Governments and Non-Profit Organizations." Recipients and Subrecipients, including universities who expend \$500,000 or more in a year in Federal awards, are also subject to the audit requirements of A-133. TIP award Recipients and Subrecipients subject to OMB Circular A-133, who do not expend \$500,000 or more in a year in Federal funds, are required to have a project audit (of Federal and non-Federal funds).

A Subrecipient is defined as an organization which receives a portion of the financial assistance from the Recipient and assists the TIP Recipient in meeting the project goals, but does not include the procurement of goods and services. Any Recipient with Subrecipients is responsible for ensuring that the Subrecipient complies with audit requirements.

- A. All Recipients, including each JV member (if a JV project) Recipient, are required to provide sufficient funds as direct costs (unless included in indirect costs) in the project's multi-year budget to have project audits performed according to the following schedule:

- (1) For awards less than 24 months, an audit is required within 90 days from the project expiration date.
- (2) For 2-, 3-, or 4-year awards, an audit is required within 90 days after the end of the first year and within 90 days from the project expiration date.
- (3) For 5-year awards, an audit is required within 90 days after the end of the first year and third year, and within 90 days from the project expiration date.

B. Audits of all Recipients shall be conducted in accordance with *Government Auditing Standards (GAS)*, issued by the Comptroller General of the United States (the Yellow Book).

- C. The Recipient shall submit **two (2) copies** of each audit report, one to the address shown in Article D.01.b. of the *Department of Commerce (DoC) Financial Assistance Standard Terms and Conditions* dated March 2008, and one copy to the NIST Grants Officer. Failure to provide audit reports within the timeframes specified above may result in appropriate enforcement action, up to and including termination of the award.

17. AWARD CLOSEOUT

- A. In accordance with the guidelines established in 15 C.F.R. §14.71 and Term A.06 of the *Department of Commerce (DoC) Financial Assistance Standard Terms and Conditions* dated March 2008, the NIST Grants Officer will allow only those costs that are strictly associated with closeout activities during the ninety (90) day period following the award expiration date. Closeout activities are limited to preparation of the final reports (technical performance and impact, financial, patent/invention, and equipment inventory) and final audit.

- B. The final closeout meeting with NIST is generally not considered a closeout-related activity, due to the fact that the closeout meeting should be conducted prior to the expiration date of the award. The Recipient must provide adequate funds in the project budget to ensure participation by all appropriate individuals in the closeout meeting. Costs associated with any closeout meeting held after the expiration date of the award may not be charged to the project unless specific, prior written approval is obtained from the NIST Grants Officer.

18. USE OF NAME OR ENDORSEMENTS

- A. Except as described in Research Term and Condition 51(a), Department of Commerce Standard Term and Condition M.11, and Special Award Condition 18 the Recipient and/or its Subrecipients and/or contractors shall not, without the prior written approval from NIST, use the name of NIST or the Department of Commerce on any product or service, which is directly or indirectly related to this award or directly or indirectly related to any patent license or assignment agreement.
- B. By entering into this award, NIST does not directly or indirectly endorse any product or service provided or to be provided by the Recipient, its successors, assignees, or licensees. The Recipient and its Subrecipients and contractors, shall not in any way imply that this award is an endorsement of any such product or service.

19. PUBLICATIONS

Consistent with the *Department of Commerce (DoC) Financial Assistance Standard Terms and Conditions* (March 2008), M.11, in any publications, the Recipient shall acknowledge financial support provided by NIST in any reported research outcomes or technology

developed. Normally this is done by a footnote reading, "This work was performed under the support of the U.S. Department of Commerce, National Institute of Standards and Technology, Technology Innovation Program, Cooperative Agreement Number 70NANBXHXXXX," or words to that effect.

20. PROTECTION OF HUMAN SUBJECTS

Research involving human subjects is not permitted under a TIP award unless expressly authorized by a Special Award Condition or otherwise in writing by the NIST Grants Officer. As referenced in *the DoC Financial Assistance Standard Terms Conditions* (March 2008), M.06, the Federal Policy for the Protection of Human Subjects (The Common Rule), codified by the Department of Commerce at 15 C.F.R. Part 27, requires Recipients to maintain appropriate policies and procedures for the protection of human subjects in research. The Common Rule defines a "human subject" as a living individual about whom an investigator conducting research obtains 1) data through intervention or interaction with the individual, or 2) identifiable private information. The term "research" means a systematic investigation, including research development, testing and evaluation, designed to develop or contribute to generalizable knowledge. The Common Rule also sets forth the categories of research that may be considered exempt from this policy. In the event it becomes evident that a human subject may be involved in this project, the Recipient shall submit appropriate documentation to the TIP Project Manager for NIST institutional review and approval. Additional information and documentation requirements are set forth in the March 2009 booklet entitled, *TIP Guidelines and Documentation Requirements for Research Involving Human and Animal Subjects*, available on the TIP website at http://www.nist.gov/tip/upload/has_2009_book.pdf.

This documentation may include:

- A. Documentation establishing review and approval of the research activity by a qualified Institutional Review Board (IRB). [NOTE: Recipients must provide documentation of continuing IRB approval by the cognizant IRB at appropriate intervals as designated by the IRB, but not less than annually].
- B. Documentation to support an exemption for the research activity from The Common Rule, or to support a request for a determination that an activity is not a use of human subjects in research.
- C. Documentation to support a request for a deferral of review for research involving human subjects beginning after award of the project, but sufficiently in advance of the activity for NIST institutional review and approval.
- D. Documentation of IRB approval of any modification to an IRB-approved existing protocol or informed consent form must be submitted to the TIP Project Manager for NIST Institutional review and approval.

No work involving human subjects may be undertaken, conducted, or costs incurred and/or charged to the project for this work, until the NIST Grants Officer approves the required appropriate documentation in writing.

21. CARE AND USE OF VERTEBRATE ANIMALS

Research involving live vertebrate animals is not permitted under a TIP award unless expressly authorized by a Special Award Condition or otherwise in writing by the NIST Grants Officer. The *Department of Commerce (DoC) Financial Assistance Standard Terms and Conditions* (March 2008), M.12, requires Recipients of financial assistance awards to comply with the Animal Welfare Act (Public Law 89-544); as amended (7 U.S.C. §§2131 et seq.), and

implementing regulations found at 9 C.F.R. Parts 1, 2, and 3; and other applicable statutes pertaining to the care, handling, or other activities supported by Federal financial assistance.

In the event it becomes evident that live vertebrate animals may be involved in this project, the Recipient shall submit appropriate documentation to the TIP Project Manager for NIST institutional review and approval. Additional information and requirements are set forth in the March 2009 booklet entitled, *TIP Guidelines and Documentation Requirements for Research Involving Human and Animal Subjects*, available on the TIP website at http://www.nist.gov/tip/upload/has_2009_book.pdf.

TIP accepts documentation identifying the institution's required credentials for performing animal studies (e.g., OLAW animal welfare assurance number, USDA certificate number, or AAALAC accreditation) in lieu of an actual copy of applicable institutional credentials (e.g., OLAW animal welfare assurance, USDA certificate, or AAALAC letter of accreditation). Since verification that assurances are valid and current can be made through official websites, generally only documentation of the applicable credential's identifier linked to the institution performing the animal studies is needed. NIST reserves the right to request a copy of the applicable institutional credentials (e.g., OLAW animal welfare assurance designation, USDA certificate, or AAALAC letter of accreditation), as warranted.

No work involving live vertebrate animals may be undertaken, conducted, and/or costs incurred and/or charged to the project for this work, until the NIST Grants Officer approves the required appropriate documentation in writing.

22. BUREAU OF INDUSTRY AND SECURITY (BIS) CLEARANCE

- A. The Recipient agrees to adhere to U.S. export laws, as administered by U.S. BIS, and shall not export or re-export, directly or indirectly, any technical data created with Federal Government funding or cost sharing funds under this award to any country for which the United States Government or any agency thereof, at the time of such export or re-export, requires an export license or other Federal Governmental approval without first obtaining such licenses or approval and the written clearance of the NIST Grants Officer.
- B. The BIS shall conduct an annual review for any relevant information about the Recipient's compliance with U.S. export laws. NIST reserves the right to take appropriate action in accordance with 15 C.F.R. Part 14.62 and Term M.01 of the *Department of Commerce Financial Assistance Standard Terms and Conditions* (March 2008), if the BIS reports significant adverse information about the Recipient to the NIST Grants Officer.

23. INFORMAL COLLABORATORS

All informal collaborators in TIP awards are subject to TIP intellectual property regulations as specified in 15 C.F.R §296.11. Informal collaborator means any individual or organization which consults, cooperates with, or participates in the performance of this award, and is not included in the approved award budget.

24. INTELLECTUAL PROPERTY

A. Patent Notification Procedures

This General Term and Condition implements *Department of Commerce Financial Assistance Standard Terms and Conditions* (March 2008), *M.04.b.*, which states that, pursuant to Executive Order

12889, the DoC is required to notify the owner of any valid patent covering technology whenever the DoC or its financial assistance Recipient, without making a patent search, knows (or has demonstrable reasonable grounds to know) that technology covered by a valid United States patent has been or will be used without a license from the owner. To ensure proper notification, if the Recipient (Single Company or Joint Venture member) uses or has used patented technology under this award without a license or permission from the owner, the Recipient or Joint Venture Administrator must notify the NIST Grants Officer within thirty (30) days of such use.

The notification shall include the following information:

- A. The award number
- B. The name of the DoC awarding agency
- C. A copy of the patent
- D. A description of how the patented technology was used
- E. The name of the Recipient contact, including an address and telephone number

B. Rights in Data

- (1) Except as otherwise specifically provided for in an award, authors may copyright any work that is subject to copyright and was developed under an award. When claim is made to copyright, the applicable copyright notice of 17 U.S.C. 401 or 402 and acknowledgment of Federal government sponsorship shall be affixed to the work when and if the work is delivered to the Federal government, is published, or is deposited for registration as a published work in the U.S. Copyright office. The copyright owner shall grant to the Federal government, and others acting on its behalf, a paid-up, nonexclusive, irrevocable, worldwide license for all such works to reproduce, publish, or otherwise use the work for Federal government purposes.

- (2) The licenses granted to the Federal Government under this Term shall not be considered as a waiver of the nondisclosure requirements of 15 U.S.C. §278n(e)(1).

C. Invention Rights

(1) Definitions

- a. "Business or Company" means a for-profit organization, including sole proprietors, partnerships, limited liability companies (LLCs) and corporations.
- b. "Developed or arising from assistance provided by TIP" includes development using TIP funding, and/or any cost share, and/or technically within the research project.
- c. "Intellectual Property" means an invention patentable under Title 35, United States Code, or any patent on such an invention, or any work for which copyright protection is available under Title 17, United States Code.
- d. "Invention" means any invention or discovery which is or may be patentable or otherwise protectable under Title 35 of the United States Code.
- e. "Made" means, when used in relation to any Invention, the conception or first actual reduction to practice of such invention.
- f. "Practical Application" means to manufacture in the case of a composition or product, to practice in the case of a process or method, or to operate in the case of a machine or system; and, in each case, under such conditions as to establish that the invention is being utilized and that its benefits are, to the extent permitted by law or Federal Government regulations, available to the public on reasonable terms.

- g. "Subject Invention" means any invention of the Recipient, and/or any Subrecipient, and/or any contractor, conceived or first actually reduced to practice in the performance of work under this award.

(2) Ownership of Inventions

- a. Single Company Awards – Ownership of inventions developed from assistance provided by the Program under 15 U.S.C. 278n(b)(2) and 15 C.F.R. § 296.3(a) shall be governed by the requirements of chapter 18 of Title 35 of the United States Code.
- b. Joint Venture Awards – Ownership of inventions developed from assistance provided by the Program under 15 U.S.C. 278n(b)(3) and 15 C.F.R. § 296.3(b) may vest in any participant in the joint venture, as agreed by the members of the joint venture, notwithstanding section 202(a) and (b) of Title 35, United States Code. Title to any such invention shall not be transferred or passed, except to a participant in the joint venture, until the expiration of the first patent obtained in connection with such invention. In accordance with 15 C.F.R. § 296.8, joint ventures will provide to NIST a copy of their written agreement that defines the disposition of ownership rights among the participants of the joint venture, including the principles governing the disposition of intellectual property developed by Subrecipients, contractors, and subcontractors, as appropriate, and that complies with the regulation.

Should the last existing participant in a joint venture cease to exist prior to the expiration of the first patent obtained in connection with any invention developed from assistance provided under TIP, title to such patent must be transferred or passed to a United States entity that can

commercialize the technology in a timely fashion.

The TIP statute (at 15 U.S.C. §278n(e)(1)), and the TIP rule (at 15 C.F.R. § 296.11), establish and implement intellectual property law unique to TIP joint ventures, and take precedence over any conflicting provisions in 15 C.F.R. §14.36 and *DoC Financial Assistance Standard Terms and Conditions*, dated March 2008, article M.04.

(3) The United States reserves a nonexclusive, nontransferable, irrevocable paid-up license, to practice or have practiced for or on behalf of the United States any inventions developed using assistance provided by TIP, but shall not in the exercise of such license publicly disclose proprietary information related to the license. Nothing in this subsection shall be construed to prohibit the licensing to any company of intellectual property rights arising from assistance provided by TIP.

(4) Invention Disclosure, United States License and Filing of Patent Application by Recipient

a. The applicable single company Recipient, Joint Venture Member Recipient or their Subrecipient(s), or contractor(s) shall disclose each subject invention to NIST within **two (2) months after the inventor discloses it** in writing to Recipient or Joint Venture member personnel responsible for monitoring patent matters. The disclosure to NIST shall be in the form of applicable Recipient, Joint Venture Member Recipient or their Subrecipient, or contractor electronic disclosure submission through the Interagency Edison extramural invention reporting system (iEdison) at www.iedison.gov. The disclosure shall identify the award under which the invention was made

and at a minimum, also contain the following information:

- i. the title of the invention;
- ii. the names of all inventors;
- iii. the name and address of the assignee (if any);
- iv. an acknowledgement that the United States has rights in the subject invention (i.e., the Governmental Use License);
- v. the filing date of the present invention;
- vi. an abstract of the disclosure;
- vii. a description or summary of the present invention;
- viii. the background of the present invention or the prior art;
- ix. a description of the preferred embodiments; and
- x. what matter is claimed.

iEdison was written for ease of compliance with Bayh-Dole, so it requires that the inventor/title holder enter the information into the system. It is impossible for the primary Recipient or Joint Venture Administrator to enter all the information into the system for an award, without causing organizations to have too many viewing rights into other IP that are not associated with a particular award. The planned primary title holder must enter the information, and that organization can then give joint owners or others, as appropriate (e.g., Joint Venture Administrator, lead award recipient, etc.), rights to view a particular entry. This will allow all the parties involved to view this information without seeing everything entered by the primary title holder that is unrelated to an award.

To the extent consistent with any TIP requirements, the applicable Recipient or Joint Venture Member Recipient or their Subrecipient, or contractor shall comply with all disclosure, election, and/or other reporting requirements of

iEdison, and shall update all such information as necessary. Each report shall also include the use of the invention and whether a manuscript describing the invention has been submitted for publication and, if so, whether it has been accepted for publication at the time of disclosure. In addition, after disclosure to NIST via iEdison, the applicable Recipient or Joint Venture Member Recipient or their Subrecipient, or contractor will promptly notify NIST via iEdison of acceptance of any manuscript describing the invention for publication or of any sale or public use planned by the applicable Recipient or Joint Venture Member Recipient or their Subrecipient, or contractor by specifying the date of such publication, or sale, or public use of the invention in the proper iEdison field(s).

- b. The applicable Recipient or Joint Venture Member Recipient, or their Subrecipient, or contractor shall notify NIST via iEdison **within two years** of the date the invention which is required to be disclosed to NIST via iEdison whether or not the applicable Recipient or Joint Venture Member Recipient, or their Subrecipient, or contractor intends to file a patent application on any subject invention.

If a patent is issued, or application submitted, the applicable Recipient or Joint Venture Member Recipient, or their Subrecipient, or contractor must submit the following information to NIST via iEdison:

- i. The award number under which the invention was made;
- ii. The serial number of the patent issued or applied for;
- iii. The date of issuance or application;
- iv. A copy of the disclosure as issued (including the drawings) and;
- v. The name(s), address, and telephone number(s) of an assignee.

In order to prevent disclosure of information to the general public under the Freedom of Information Act (FOIA) or any other statute, each page of each patent report should be marked, "CONFIDENTIAL/PROPRIETARY."

- c. Requests for extension of the time for disclosure, election, and filing under paragraphs 24.C.(4)(a) and (b) of this Term may be permitted at the discretion of NIST.

(5) Recipient Action to Protect the Government's Interest

- a. The applicable Recipient or Joint Venture Member Recipient, or their Subrecipient, or contractor will, via iEdison, execute, or have executed, all instruments necessary to establish or confirm the rights the United States Government has throughout the world in those subject inventions to which the applicable Recipient or Joint Venture Member Recipient or their Subrecipient, or contractor has filed a patent application in which the United States has reserved a non-exclusive license.
- b. The applicable Recipient or Joint Venture Member Recipient shall require, by written agreement, its employees, other than clerical and nontechnical employees, to disclose promptly in writing to personnel identified as responsible for the administration of patent matters and in a format suggested by the applicable Recipient or Joint Venture Member Recipient, each subject invention made under the award in order that the applicable Recipient or Joint Venture Member Recipient can comply with the disclosure provisions of paragraph C.(3) of this Term, and to execute all papers necessary to file patent applications on subject inventions and to establish the Government's rights in the subject inventions. This disclosure format should require, as a minimum, the

information required by C.(4)(a) of this Term. The applicable Recipient or Joint Venture Member Recipient shall instruct such employees through employee agreements or other suitable education programs on the importance and requirements of reporting inventions in sufficient time to permit the filing of patent applications prior to United States or foreign statutory bars.

- c. The applicable Recipient or Joint Venture Member Recipient shall promptly notify NIST via iEdison of any decisions not to continue the prosecution of a patent application, the payment of maintenance fees, or the defense in a reexamination or opposition proceeding on a patent in any country.
- d. The applicable Recipient or Joint Venture Member Recipient agrees to include, within the specification of any United States patent application and any patent issuing thereon covering a subject invention, the following statements:

This invention was made with United States Government support under Cooperative Agreement Award Number (identify number) awarded by the National Institute of Standards and Technology (NIST). The United States Government has certain rights in the invention.

(6) Subawards and Contracts

The Recipient or Joint Venture Member Recipient shall include in all subawards and contracts, **regardless of tier**, for experimental, developmental, or research work, a patent rights clause, as appropriately modified, comparable to this term. However, pursuant to the statute establishing the TIP (15 U.S.C. 278n(b)(e)) and the implementing regulations (15 C.F.R. 296.11), the patent rights clause shall also provide that title to any invention made by

the Subrecipient or contractor may vest only with a JV participant as agreed by the JV members and named within the subaward or contract, and that title to any such patent shall not be transferred or passed, except to a participant in the joint venture, until the expiration of the first patent obtained in connection with such invention. In addition, the subaward or contract shall specify that should the last existing participant in a joint venture cease to exist prior to the expiration of the first patent obtained in connection with any invention developed from assistance provided under the TIP, title to such patent must be transferred or passed to a U.S. entity that can commercialize the technology in a timely fashion.

(7) Reporting on Utilization of Subject Inventions

The applicable Recipient or Joint Venture Member Recipient agrees to submit on request, no more frequently than annually, periodic reports on the utilization of a subject invention or on efforts at obtaining such utilization that are being made by the applicable Recipient or Joint Venture Member Recipient or its licensees or assignees. Such reports shall include information regarding the status of development, date of first commercial sale or use, gross royalties received by the applicable Recipient or Joint Venture Member Recipient, and such other data and information as NIST may reasonably specify. The applicable Recipient or Joint Venture Member Recipient also agrees to provide additional reports as may be requested by NIST in connection with any march-in proceeding undertaken by NIST in accordance with paragraph C.(9) of this Term. Such information shall be treated by NIST as commercial and financial information and thus as privileged and confidential. Unless required by law, NIST will not disclose such information.

(8) Preference for United States Industry

Notwithstanding any other provision of this Term, the Recipient or Joint Venture Member Recipient agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any subject inventions in the United States unless such person agrees that any products embodying the inventions will be manufactured substantially in the United States. However, in individual cases, the requirement for such an agreement may be waived by NIST upon a showing by the Recipient or Joint Venture Member Recipient or its assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that, under the circumstances, domestic manufacture is not commercially feasible.

(9) March-in Rights

The Recipient or Joint Venture Member Recipient agrees that, with respect to any subject invention in which it has acquired title, NIST has the right, in accordance with procedures in 37 C.F.R. §401.6 and any supplemental regulations of NIST, to require the Recipient or Joint Venture Member Recipient, an assignee, or an exclusive licensee of a subject invention to grant a nonexclusive, partially exclusive, or exclusive license in any field of use to a responsible applicant or applicants, upon terms that are reasonable under the circumstances. If the Recipient, Joint Venture Member Recipient, assignee, or exclusive licensee refuses such a request, NIST has the right to grant such a license itself if NIST determines that:

- a. Such action is necessary because the Recipient, Joint Venture Member Recipient, or assignee has not taken, or is not expected to take within a reasonable time, effective steps to

achieve practical application of the subject invention in such field of use;

- b. Such action is necessary to alleviate health or safety needs which are not reasonably satisfied by the Recipient, Joint Venture Member Recipient, assignee, or licensees;
- c. Such action is necessary to meet requirements for public use specified by Federal regulations and such requirements are not reasonably satisfied by the Recipient, Joint Venture Member Recipient, assignee, or licensees; or
- d. Such action is necessary because the agreement required by paragraph C.(8) of this Term has not been obtained or waived or because a licensee of the exclusive right to use or sell any subject invention in the United States is in breach of the agreement required by paragraph C.(8) of this Term.

(10) Conflicts between TIP Intellectual Property Provisions and Non-U.S. Country Intellectual Property Provisions

If the Recipient's proposal includes work approved by the NIST Grants Officer to be performed in a non-U.S. country, by accepting this award, the applicable Recipient or Joint Venture Member Recipient certifies that no legal requirement exists in that country that conflicts with the TIP intellectual property requirements, including the U.S. Government license provisions.

25. STATUTORY REFERENCE

All references to the TIP statute (15 U.S.C. §278n) contained in this award, including the December 2010 TIP Special Award Conditions and these TIP General Terms and Conditions, mean the TIP statute in the U.S. Code, as amended by the America COMPETES Act (Pub. L. 110-69) on August 9, 2007.

26. SUBAWARDS

All terms of the NIST cooperative agreement apply to the Subrecipient, except those specifically excluding Subrecipients from coverage and those involving the scope of work, budget, and cost share, unless specifically addressed in the award. Terms that flow down include all Federal, Commerce Department, and TIP statutes, regulations, and award requirements, including but not limited to the Subrecipient reporting requirements set forth in the Special Award Conditions applicable to this award.

The scope of work and budget are limited as described in the subaward. Subrecipients should implement provisions through Recipient contacts, not NIST, when provisions describe interaction between the Recipient and NIST, such as payment mechanisms, program and financial reporting and prior approvals. A recommended format for a subaward agreement is attached, as applicable.

ATTACHMENT

December 2010

TECHNOLOGY INNOVATION PROGRAM OPTIONAL FORMAT GUIDELINES AND REQUIRED INFORMATION FOR QUARTERLY TECHNICAL PERFORMANCE AND IMPACT REPORTS

OVERVIEW

The National Institute of Standards and Technology (NIST) Technology Innovation Program (TIP) General Terms and Conditions incorporated into the Cooperative Agreement between your organization(s) and NIST calls for quarterly technical performance and impact reports that are the main source of information provided to TIP on the progress on the project. The content of these reports, as requested by TIP, is consistent with 15 C.F.R. §14.51. A suggested structure is outlined below and is designed to not be overly burdensome to your organization. This specific structure or format is optional, ***but content that is consistent with 15C.F.R. §14.51 is required.*** If your organization has its own format for such reports and all the requested information is provided, TIP will accept your format.

TIP relies on these quarterly technical performance and impact reports to monitor R&D progress and notable project accomplishments/impacts. In addition, these reports are used in preparing quick-response reports to Congress and Executive Agencies of the Government that oversee TIP. It is anticipated that these reports will be extremely valuable in the development of impact information for the TIP Annual Report to Congress. However, TIP policy prohibits release of proprietary information contained in these reports and limits internal distribution to those directly involved in management and administration of the specific cooperative agreement. TIP will clear information abstracted from the reports by TIP through your organization in advance of release.

The report format outlined here provides for a systematic and logical structuring of progress by key elements, and promotes tracking of developments. For each performance year, a baseline for key elements is initially established for that year, and subsequent reports simply update the baseline. In addition to keeping the TIP Project Manager up to date on progress, these reports will provide a history of the project over its life that could prove useful in project audits.

CONTENT

The quarterly technical performance and impact report must provide the following:

- a) Summarize the overall project technical objectives and provide sufficient details to establish the overall project "baseline" for tracking project developments, milestones and metrics throughout the life of the project that is consistent with the original proposal or modifications, as approved in writing by the NIST Grants Officer. Include a summary of how the overall project's research results, if successful, will contribute to the U.S. science and technology knowledge base and provide an overview of the preferred strategy for disseminating research results consistent with the original proposal.
- b) Provide sufficient evidence that the project is attaining technical milestones necessary to stay on track for meeting the project objectives;
- c) Identify and explain changes in the organizational composition, direction, key personnel or dissemination strategies for results associated with the project.
- d) Identify problems or special opportunities that are critical to the progress of the research, and areas which may benefit from further consultation with the TIP Project Manager.

Two copies of each quarterly technical performance and impact report shall be submitted to the TIP Project Manager, and the original report to the Grants Officer. If there are technical graphics that do not copy well, please include originals in the copies of the report. (Please refer to Special Award Conditions for mailing addresses.) In the following sections, each element of the quarterly technical performance and impact report is discussed. If you wish to submit a more extensive report of technical progress for a given quarter, you may append it to the formal report. If there is no additional progress to report under a given reporting section, please provide a short explanation of the reason for no update for the performance

period. Do not simply insert "not applicable." Please date all submissions and mark each page of the report "Proprietary."

COVER PAGE INFORMATION

See the sample outline of a quarterly technical performance and impact report on the last page of these guidelines for the information required for this cover page to the report.

OVERALL PROJECT OBJECTIVES

The first section of the first quarterly technical performance and impact report should state the overall technical goal of the project and list specific objectives over the life of the project. These should be drawn from the proposal with amplification as required to provide quantitative bases (metrics) for success, or additional details. The overall project objectives should typically remain unchanged throughout the project unless results dictate a shift or major technical problems require re-planning a portion of the work. Changes should be addressed in the section entitled "Summary of Project Changes." ***If the project objectives section is unchanged from one quarter to the next, this section may be put in an appendix to the report.***

OVERALL PROJECT BASELINES

In order to contrast the state-of-the-art before and after completion of each TIP project, a detailed baseline to describe the status of key elements of the technology at the project outset is required. This should be consistent with the original proposal, but will likely need to provide additional details. Define the baseline in the context of specific targets that are expected to constitute success, and are consistent with project objectives. These may include physical performance characteristics, specific technical capabilities, or initial per-unit costs. If quantitative measures are not applicable to all project targets, provide detailed qualitative statements describing the state-of-the-art at the time of project initiation. Identify any changes since the proposal was prepared for the baseline of the project's specific targets. Targets are expected to include interim project targets, in addition to the final project targets. Include a summary of how the overall project's interim and final research results, if successful, will contribute to the U.S. science and technology knowledge base and provide an overview of the preferred strategy for disseminating interim and final research results (i.e. publications, patents, licensing, seminars, commercialization partnerships etc.) consistent with the original proposal. The TIP Project Manager will assist you in identifying appropriate baseline characterization or interim and final targets as part of the project kickoff. In addition, the TIP Project Manager will discuss dissemination opportunities for the project with you to explore the potential for maximizing project impacts if the research is successful. This discussion may include a staff member from the TIP Impact Assessment Group, which is responsible for coordinating the input for the TIP Annual Report. ***Once established, the project baseline may be moved to an appendix to the report.***

TECHNICAL MILESTONES

The first quarterly report of each project year should present appropriate milestones for the year and relate the contribution of current year milestones to the overall project targets described in the Project Baseline. Milestones need to cover activities through the year, interim annual milestones and/or decision points are expected, as well as end-of-year milestones. First year milestones are generally presented and/or modified during the kickoff meeting, and subsequently updated for the next year as part of each annual review. The level of detail will depend on the nature of each project, and the concurrence of the principal investigator and the TIP Project Manager. A time line chart of the current year and the overall project milestones should be included in this section with clear identification of major decision points. Once established, this list of milestones with appropriate due dates are not to be changed unless technical results or new opportunities dictate, and proposed changes are discussed with the TIP Project Manager in order to determine whether or not prior written approval through the NIST Grants Officer is warranted due to the nature of the proposed change. Any anticipated, pending or completed changes to the project should be addressed in the section entitled "Summary of Project Changes." ***Note that if the previous two sections of the report are moved to the appendix, the main text of each quarterly report will begin with this section following the cover page information.***

TECHNICAL PROGRESS AND IMPACT

This is the heart of the quarterly technical performance report, and will occupy the majority of the scientific and technical discussions each quarter. This section should include a discussion of technical progress for the specific performance quarter against the current performance year milestones identified in the preceding section. Sufficient discussion should be provided to allow an accurate assessment of progress, and identification of both successes and technical difficulties against the milestones. Discussion of progress (and technical setbacks) should include implications for the overall objectives of the project, such as milestone timing, decision point options, the need to modify the technical approach, or major equipment purchases. Metrics to illustrate progress by task are very helpful, such as percent completion of key tasks as of the reporting period. At the end of this section please identify the most significant technical advance to date in the project, and include a short discussion of its significance. For example, if a major decision point is reached during the performance period there should be considerable discussion and analysis against the decision point metrics. Be sure to list any patent disclosure information submitted to iEdison, publications, or presentations associated with the research results to date in the Impact Opportunities section below.

SUMMARY OF PROJECT CHANGES

In this section, succinctly summarize substantive changes in project planning, personnel, or execution that have occurred over the reporting quarter. These should be derived from the main elements of the report as this section is intended only as a summary. If approval of a change is being requested, please note that specifically. All substantive changes to the technical scope of work or budget changes must be discussed in advance with the TIP Project Manager, who must recommend an amendment to the award by the NIST Grants Officer. The criteria for obtaining 'Prior Approval' are specified in 15 C.F.R §14 and the TIP General Terms and Conditions in the award document. The potential for major changes should be discussed with the TIP Project Manager as soon as possible. ***Do not wait to request them in a quarterly report.***

PROBLEMS AND OPPORTUNITIES

This section should provide a synopsis of technical problems that must be resolved to keep the project on track.

ORGANIZATIONAL ISSUES

This section is for any organizational developments or dissemination updates of research results. This would include any changes to the organizational structure of project participants that impacts either accomplishing the research tasks of the project, or the preferred strategies for dissemination of project results.

IMPACT OPPORTUNITIES

This section is for updates to progress made in implementing the science and technology results since the previous quarterly report. This information should help demonstrate how the funded research is beginning to address the societal challenges associated with the critical national need this project is targeted to impact. This summary is useful for TIP when reporting program results to stakeholders and will shape and contribute to TIP's Annual Report.

Please include a brief summary of the significant events, by participant, in the following areas since your last report:

- Knowledge dissemination and feedback from presentations and publications;
- Patents filed and/or granted as a result of the TIP-funded research and reported in iEdison;
- Contacts and discussions concerning early adoption, testing, or validation of the funded research or technology;
- Licensing or other dissemination arrangements resulting from the research (including preliminary discussions);
- Changes in dissemination strategies due to research results to date, organizational changes, research results outside the project, or other significant influences.

These summaries are designed to be qualitative in nature. Quantitative metrics will be gathered during separate annual Impact Reporting requests, which is under development. This information may be

collected through this reporting mechanism, over a secure website to TIP, or through its designated contractor.

TIP is required to report annual performance measures. These measures have been developed by TIP in collaboration with the Department of Commerce and the Office of Management and Budget. Information will be collected on an annual basis (e.g. the fourth quarter of every calendar year) to help TIP address these performance measures. These measures are needed for each project participant for the calendar year that is just ending, and include the following:

- Number of scientific publications;
- Number of patent applications;
- Indication if the funded research has resulted in additional research efforts beyond the cooperative agreement by your organization or another organization outside of the project
- Indication that the research or technologies are under adoption (e.g. evidence of beta testing, licensing agreements, or commercialization through improved products or processes)

UPCOMING MEETINGS & PROJECT COMMUNICATION PLANS

It is often helpful to present a proposed project coordination meeting schedule for the year in this section, and highlight when various project participants' progress will be reviewed; for example, when input from one participant is critical to launching the next task etc. This type of schedule can be particularly critical to large joint ventures or single company projects with several subcontractors. The meeting calendar may include formal or informal meetings or teleconferences of the project principals or formal technical meetings where work, which is related to the project, is addressed. It should include a planned general time frame and expected location for the annual project review with TIP, which is to be scheduled during the last quarter of the project year (not the calendar year). If you wish to set up a meeting at NIST, or to request the attendance of the TIP Project Manager at any meeting, you may use this section to make the request and to provide an overview of the meeting.

FINAL TECHNICAL AND IMPACT REPORT FOR THE TOTAL PROJECT PERIOD

Provide an executive summary, which could be read and understood by someone not skilled in the particular technology. The final technical report is proprietary, just like past quarterly reports and the original proposal.

The summary should provide an overview of the technology that was developed and the problems that were solved and unsolved in its development. For significant unsolved issue(s), quantify as much as possible how close your accomplishments address the issue and why. In addition, discuss any plans project participants have to continue to work on the issue(s).

The summary should identify the key performance parameters and describe how end-of-project performance compared with beginning-of-project baseline performance. This discussion should include an overview of the outcomes of decision points (go/no go) throughout the project.

The summary should also discuss the significance of the project accomplishments in terms of the potential for impacts beyond the project participants and to address the specific challenges of the critical national need associated with the original proposal.

Important remaining technical and non-technical barriers to addressing the specific challenges of the critical national need associated with the original proposal should be described in detail. A summary should be provided indicating if and when these remaining barriers may be overcome by any of the project participants and by whom.

A separate non-proprietary project overview of R&D accomplishments and status of impacts to the broader research community and/or implementation of results by the business community that may be used in a TIP annual report or press release should be clearly identified in a special section of the final technical performance and impact report. Image files of project results can also be included. Any publication use of the information will be reviewed with the project participants prior to release.

SAMPLE

TIP Quarterly Technical Performance and Impact Report
Date of Report: mm/dd/yyyy Project Year and Quarter: Yr X, Qtr X

REPORT COVER PAGE INFORMATION

Cooperative Agreement Number:
Project Title:
Performing Organization(s): (List all JV members)
Address(es):
Subcontractor(s): (List all subcontractors)
Address(es):
Award Recipient's Project Manager:
Title:
Telephone Number:
Facsimile Number:
E-Mail Address:
Administrative Contact:
Title:
Telephone Number:
Facsimile Number:
E-Mail Address:
Type of Project: (Single Company or Joint Venture)
Date Initiated: mm/yy Project Duration: months
Total TIP Funding Requested: (\$M)
Total Cost Share Funding Committed: (\$M)
Current Performance Year: mm/yy-mm/yy
Quarterly Report Period: mm/yy-mm/yy
TIP Project Manager:
NIST Grants Specialist:

SECTIONS FOR REPORT

1. Overall Project Objectives
2. Overall Project Baselines
3. Technical Milestones
 - Includes milestone chart for full project
 - Includes more details for current year milestones & metrics
4. Technical Progress and Impact
 - Includes discussion of progress and impacts against milestones
 - Implications of results to date on milestones and impacts
 - Analysis against decision point metrics
 - Most significant results to date and why
5. Summary of Project Changes
6. Problems and Opportunities
7. Organizational Issues
 - Project or participant organization issues
8. Impact Opportunities
 - Update on dissemination strategy and activities to date
 - Annual performance measures
9. Upcoming Meetings & Project Communication Plans