



**National Science Foundation
Cooperative Agreement
Modifications and Supplemental Financial & Administrative Terms and
Conditions for Major Multi-User Research Facility Projects and Federally
Funded Research and Development Centers
Effective May 13, 2022**

Unless otherwise specified in a special award condition of the cooperative agreement, or as modified below, the [Cooperative Agreement Financial & Administrative Terms and Conditions](#) (CA-FATC) dated May 13, 2022 are applicable to this cooperative agreement or cooperative support agreement. When the Modifications and Supplemental Financial & Administrative Terms and Conditions for Major Multi-User Research Facility Projects and Federally Funded Research and Development Centers dated May 13, 2022 or an award notice reference a particular section of the [Research Infrastructure Guide](#), then that section becomes part of the award requirements through incorporation by reference.

**Modifications to the Cooperative Agreement Financial & Administrative
Terms and Conditions**

The CA-FATC are modified for both Major Multi-User Research Facility Projects and Federally Funded Research and Development Centers as follows:

Article 3. Prior Approval Requirements, is supplemented with a new paragraph c. as follows:

c. In cases where cooperative support agreements (CSAs) are the funding mechanism for the cooperative agreement (CA), the NSF prior written approval requirements specified above are applicable to **EACH** CSA, unless modified by the award specific terms and conditions.

Article 6. Equipment, paragraph a, and c.1 are deleted in their entirety and replaced with the following:

a. Title to Equipment

Unless otherwise specified in the cooperative agreement, title to equipment purchased or fabricated with NSF award funds will vest in the awardee upon acquisition. Such equipment is subject to the full range of acquisition, use, management, and disposition requirements of 2 CFR § 200.313. The awardee holds title to the property in trust, consistent with 2 CFR § 200.316, unless and until the expiration of 120 days from the award end date and providing the government has not exercised its conditional interest as further described in paragraph b.7.

c. Reporting Requirements for Federally-owned Property

In the event that title to equipment is vested in the Federal Government, such Federally-owned property (FOP) must be identified, tagged or segregated in such a manner as to clearly indicate its ownership by the Federal government. Unless otherwise provided in the grant, such FOP must be used only for the performance of the project. An annual inventory report must be submitted in accordance with paragraph 1. below and a physical inventory of FOP must be conducted every two years pursuant to 2 CFR §200.313(d)(2).

1. Annual Inventory Report for Federally-owned Property

(a) Submission Requirement: The awardee must submit an annual inventory report by NSF award number for all FOP having an original acquisition cost of \$5,000 or more in accordance with 2 CFR §200.312(a). The annual inventory report should be submitted to the NSF Property Administrator, Division of Administrative Services (DAS), no later than October 15 each year using the NSF Central Property Inventory Repository (CPIR) system.

(b) Content of Annual Inventory Report: Content of Annual Inventory Report: The report should include the below information for all FOP purchased or constructed under the award, including land and buildings, inclusive of all subawards. In addition, the report should include any FOP acquired through the General Services Administration (GSA) Federal Excess Personal Property Utilization Program and the Federal Surplus Personal Property Donation Program. In the event that the awardee is in possession of FOP under multiple awards, the reporting must be specific to each NSF award number. The awardee may use the Office of Management and Budget (OMB)-approved Post-Award Reporting forms for Tangible Personal Property (SF-428, SF-428A, SF-428B, SF-428C, and SF-428S) accessed on the Grant.gov website.

Required inventory information:

- description of the property;
- serial number or other identification number;
- cost of the property;
- acquisition date;
- use and condition of the property;
- the source of funding for the property (including the FAIN);
- who holds title;
- percentage of Federal participation in the project costs for the Federal award under which the property was acquired;
- the location; and
- any ultimate disposition data including the date of disposal and sale price of the property.

Article 28. Publications, is deleted in its entirety and replaced with the following:

28. Acknowledgement

a. Acknowledgment of Support

The awardee must acknowledge NSF support and comply with the guidance at <https://www.nsf.gov/policies/logos.jsp>:

1. in any publication (including presentations and World Wide Web sites) of any material based on or developed under this award in the following statement:

"This material is based upon work supported by the [FACILITY NAME] which is a major facility funded by the National Science Foundation." [Use NSF Logo if graphical and NSF award number if publication or other written material]

And for facilities funded solely by NSF:

"This material is based upon work supported by NSF's [FACILITY NAME] which is a major facility fully funded by the National Science Foundation."

Use NSF Logo if graphical and NSF award number if a publication or other written material.

2. is orally acknowledged during all media interviews including, but not limited to, social media, radio, television and film.

b. *Public Relations Activities and News Releases*

1. The awardee must consult with the cognizant NSF Program Officer or his/her designee prior to any significant public relations activities or events concerning the NSF-supported activities under the award; including providing an advance copy of any news or press releases concerning NSF-supported activities prior to issuance.

2. The awardee must provide timely notification to the cognizant NSF Program Officer or his/her designee of any substantive inquiries made by the media or Congress.

c. *Disclaimer*

The awardee must include the following disclaimer in every publication or printed material (Including World Wide Web sites) based on or developed under this award, except scientific articles or papers appearing in scientific, technical or professional journals:

"The [FACILITY] is supported by the National Science Foundation. Any opinions, findings and conclusions or recommendations expressed in this material do not necessarily reflect the views of the National Science Foundation."

d. *Copies*

The awardee must provide the cognizant NSF Program Officer access to, either electronically or in paper form, a copy of every publication of material based on or developed under this award, clearly labeled with the award number and other appropriate identifying information, promptly after publication.

e. *Signage and Markings*

Facility signage and markings must be in accordance with [NSF Logo and Visual Identity Guidelines](#) . The awardee must consult with the cognizant NSF Program Officer on the cost, timeline, design and placement of any signage using the NSF logo or name on any building or site; particularly in instances where interagency or international partnerships exist.

f. *Naming and Renaming NSF Facilities*

Facility naming and renaming must be in accordance with [NSF Logo and Visual Identity Guidelines](#). Awardees with new facilities and facilities that are being considered for renaming should contact their cognizant NSF Program Officer for more information before proceeding.

Article 33. Termination and Enforcement, paragraph e. is replaced with the following:

e. Within 120 days of the termination date, the awardee will furnish a summary of progress under the award and an itemized accounting of costs incurred prior to the termination date or pursuant to d., above. Final allowable costs under a termination settlement must be in accordance with the terms of the award, including this Article, and the governing cost principles, giving due consideration to the progress under the award. In no event will the total of NSF payments under a terminated award exceed the award amount, or the NSF pro rata share of the total project costs when cost sharing was anticipated, whichever is less.

Article 60. Liability, is deleted in its entirety and replaced with the following:

60. Liability

a. NSF cannot assume any liability for accidents, bodily injury, illness, breach of contract, any other damages or loss or any claims arising out of any activities undertaken pursuant to the award, whether with respect to persons or property of the awardee or third parties. The awardee is advised to insure or otherwise protect itself or others, as it may deem desirable.

b. The awardee must procure and thereafter maintain property insurance consistent with guidance at 2 CFR 200.310, workmen's compensation, employer's liability, comprehensive general liability (bodily injury), comprehensive automobile liability (bodily injury and property damage) and comprehensive aircraft liability (bodily injury and property damage) insurance, with respect to performance under the agreement, and such other insurance as the cognizant NSF Grants and Agreements Officer may from time to time require with respect to performance under the agreement.

Note: Express statutory authority is required prior to consideration of insuring government property.

c. The awardee may, with the approval of the cognizant NSF Grants and Agreements Officer, maintain a self-insurance program; and provided further, that with respect to workmen's compensation the awardee is qualified pursuant to statutory authority. All insurance required pursuant to the provisions of this paragraph must be in such form, in such amounts and for such periods of time as the cognizant NSF Grants and Agreements Officer may from time to time require or approve, and with insurers approved by the cognizant NSF Grants and Agreements Officer.

d. The awardee agrees, to the extent and in the manner required by the cognizant NSF Grants and Agreements Officer, to submit for approval any other insurance maintained by the awardee in connection with the performance of the agreement and for which the awardee seeks reimbursement hereunder.

e. The awardee will be reimbursed for the following:

1. The portion allocable to the agreement of the reasonable cost of insurance as required or approved pursuant to the provisions of this Article; and

2. for certain liabilities to third persons for loss or damage to property or for death or bodily injury, not compensated by insurance or otherwise, arising out of the performance of the agreement, whether or not caused by the negligence of the awardee, its agents, servants or employees, provided such liabilities are represented by final judgments or settlements approved in writing by the Government, or as to an approved deductible where an insurance company has issued payment against the relevant policy, and expenses incidental to such liabilities, except liabilities:

(a) for which the awardee is otherwise responsible under the express terms of the article or articles, if any, specified in the agreement, or

(b) with respect to which the awardee has failed to insure as required or maintain insurance as approved by the cognizant NSF Grants and Agreements Officer, or

(c) which results from willful misconduct or lack of good faith on the part of any member of the Board of Trustees of the awardee, any corporate officer or any of its managers, superintendents or other equivalent representatives, who has supervision or direction of:

(i) all or substantially all of the awardee's business, or

(ii) all or substantially all of the awardee's operations at any one plant or separate location in which the agreement is being performed, or

(iii) a separate and complete major operation in connection with the performance of the agreement.

The foregoing will not restrict the right of the awardee to be reimbursed for the cost of insurance maintained by the awardee in connection with the performance of the agreement, provided such cost would constitute an allowable cost under the Article entitled "Allowable Costs" and the governing cost principles.

f. The awardee must give the Government or its representatives immediate notice of any suit or action filed, or prompt notice of any claim made against the awardee arising out of the performance of the agreement, the cost and expense of which may be reimbursable to the awardee under the provisions of the agreement and the risk of which is then uninsured or in which the amount claimed exceeds the amount of coverage. The awardee must furnish immediately to the Government copies of all pertinent papers received by the awardee.

The awardee must notify the Government if the amount of the liability claimed exceeds the amount of coverage. The Government may direct the awardee to authorize representatives of the Government to collaborate with counsel for the insurance carrier, if any, in settling or defending such claim. If the liability is not insured or covered by bond, the awardee must, if required by the Government, authorize representatives of the Government to settle or defend any such claim and to represent the awardee in or take charge of any litigation in connection therewith; provided, however, that in such event the awardee may, at its own expense, be associated with the representatives of the Government in the settlement or defense of any such claim or litigation.

Article 62. Partnerships with Foreign Collaborators, is deleted in its entirety and replaced with the following:

62. Foreign Collaboration Considerations

a. Consideration of new collaborations with non-U.S. organizations

(1) The awardee must provide the cognizant NSF Program Officer and Grants and Agreements Officer with advanced written notification of any potential collaboration with non-U.S. organizations or governments in connection with its NSF-funded award scope.

The awardee then must await further guidance from NSF prior to further contacting the proposed non-U.S. organization regarding this potential collaboration or negotiating terms of any potential agreement. For this item and others below, awardee notifications to NSF should be made as soon as is practicable. NSF guidance normally would be expected within 45 days except for complex cases requiring iteration or further information from the awardee.

(2) Advance notification to NSF must include a description of the intended scope of the potential collaboration; how it contributes to the mission of the facility; the organizations proposed to be involved; the duration of the effort; any possible exchange of facility access or non-public data; provisional concepts of governing structures; the associated benefit to the U.S. scientific community; or other thing of value.

(3) Following initial NSF guidance, if negotiations commence, the awardee must notify NSF as to any changes that were not incorporated when NSF provided its original guidance and await further guidance before reaching final agreement.

b. Existing collaborations with non-U.S. organizations

(1) The awardee must provide the cognizant NSF Program Officer and Grants and Agreements Officer with a written list of all existing foreign collaborations in which it has entered in connection with its NSF-funded award scope, detailing the scope of the agreement, participants thereto, duration, location, and the value or level of effort provided by the awardee.

(2) The awardee must provide NSF with notice of any pending changes or developments that modify the information in the list provided in b.(1).

c. Description of collaborations that should be reported

(1) In general, a collaboration will involve some provision of a thing of value to, or from, the NSF facility or awardee. A thing of value includes but may not be limited to all resources made available to, or from, the awardee in support of and/or related to the NSF award, regardless of whether or not they have monetary value. Things of value also may include in-kind contributions (such as office/laboratory space, data, equipment, supplies, employees, students). In-kind contributions not intended for direct use on this award but resulting in provision of a thing of value from or to this award also must be reported.

(2) Collaborations referenced in this Article do not include routine workshops, conferences, use of the awardee's services and facilities by foreign investigators resulting from its standard published

process for evaluating requests for access, or the routine use of foreign facilities by awardee staff in accordance with the awardee's standard policies and procedures.

Additional Modification to Financial & Administrative Terms and Conditions for Federally Funded Research and Development Centers

The CA-FATC are modified with the following Financial & Administrative Term and Condition that is specific to Federally Funded Research and Development Centers and does not apply to Major Multi-User Research Facility Projects.

Article 29. Intangible Property, paragraph k.3. is replaced with the following:

3. after payment of patenting costs, licensing costs, payments to inventors, and other expenses incidental to the administration of subject inventions, the balance of any royalties or income earned and retained by the contractor during any fiscal year on subject inventions under this or any successor contract containing the same requirement, up to any amount equal to five percent of the budget of the facility for that fiscal year, must be used by the contractor for scientific research, development, and education consistent with the research and development mission and objectives of the facility, including activities that increase the licensing potential of other inventions of the facility. If the balance exceeds five percent, 15 percent of the excess above five percent must be paid by the contractor to the Treasury of the United States and the remaining 85 percent must be used by the contractor only for the same purposes as described in the preceding sentence. To the extent it provides the most effective technology transfer, the licensing of subject inventions should be administered by contractor employees on location at the facility; and

Supplemental Financial & Administrative Terms and Conditions

The CA-FATC are supplemented with the following additional terms and conditions for Major Multi-User Research Facility Projects including those designated as Federally Funded Research and Development Centers as follows:

| Article | Subject |
|----------------|---|
| 64. | Cooperative Support Agreements |
| 65. | Other Funding |
| 66. | Contract Requirements |
| 67. | Incurred Cost Submissions of Financial Expenditure Data |
| 68. | Federally-owned Property |
| 69. | Recipient-titled Property |
| 70. | Financial Statement Disclosure of Federally-owned Property |
| 71. | Notification of Property Damage |
| 72. | Master Site Plan |
| 73. | Lease or Purchase of Additional Space |
| 74. | Information Security |
| 75. | Software Development |
| 76. | Rights in Data Necessary for the Operation and Management of the Facility |
| 77. | Health and Safety |
| 78. | Notice to the Government of Labor Disputes |
| 79. | Environmental Compliance |
| 80. | Notice to NSF of Environmental Liability |
| 81. | Knowledge Management |

- 82. Project Personnel and Competencies
- 83. Environmental and Historic Preservation Compliance

64. Cooperative Support Agreements

Cooperative Support Agreements (CSAs) may be issued by NSF for support of specific projects and/or programs for work to be done under the agreement. CSA's are treated as separate awards but fall under the terms and conditions of the main Cooperative Agreements (CA). Therefore, the awardee is required to submit a new proposal request via Fastlane or Research.gov for specific projects and/or programs to be accomplished under the CA. Proposal submission will follow NSF normal review and approval process.

Amendments will be issued to modify specific terms and conditions of the CSA, or to provide funding. The use of the word agreements in this document can mean both CA's and CSA's.

Each CSA issued after the effective date of the CA will normally include (at a minimum) the following:

1. Start and end date of the CSA;
 2. Anticipated level of funding to be provided under the CSA;
 3. Any additional CSA-specific Financial and Administrative Terms and Conditions, specific to this project and/or program funded by the CSA;
 4. Project Description which states the specific scope of work to be accomplished under the CSA;
 5. Performance and/or Reporting Requirements specific to the CSA;
 6. Any additional Programmatic Terms and Conditions, specific to this project and/or program funded by the CSA;
- a. *Conditions for Interagency Transfer of Funds*

If funding from other Federal agencies is to be provided to the awardee via interagency fund transfer, the process will begin with a proposal from the awardee to the other agency, which will execute an interagency agreement that effects the transfer of funds to NSF and will conclude with the issuance of an amendment to a CSA by NSF to obligate the funds to the award. It is NSF's responsibility to provide to the awardee copies of all interagency agreements that transfer funds in support of the awardee's proposals. It is the awardee's responsibility to notify the prospective sponsor that, as a condition of NSF's entering into an interagency agreement of fund transfer, other Federal agencies must agree to the following conditions:

1. NSF will implement the agreement by an amendment issued to a CSA under the agreement, or any successor agreement, and NSF will not itself be directly responsible for the provision of goods or services contemplated under the awardee's proposal to the other Federal Agency.
2. It is the awardee's responsibility to provide the necessary fiscal and technical reports to the sponsoring agency in accordance with the terms and conditions of the sponsoring agency's agreement.

3. NSF assumes no liability for any costs above the funds obligated against the CSA.
 4. In accordance with NSF policy, a portion of the incoming fund transfer will be set aside to recover costs that NSF incurs in the management, administration, and oversight of the funded activities at a rate predetermined by NSF.
 5. All fund transfers and work performed will be accepted under the terms and conditions of the agreement.
- b. *Submission of Supplemental Funding Requests under Cooperative Support Agreements*

In submitting supplemental funding requests, the awardee must follow the PAPPG and the MFG for instructions.

65. Other Funding

It may be appropriate for funding to be provided to the awardee by other organizations, including Federal agencies in support of their missions or in support of mission-related staff research. It is also recognized that it may be appropriate for personnel or facilities to be used for other NSF and non-NSF projects that are deemed consistent with the scope of the federal award. Such activities, however, must be coordinated in advance with NSF and not impact negatively on NSF sponsored activities to be performed under the award. Accordingly:

- a. As used in the agreement, the term "other funding" means funding received from a third party to support research and development activities.
- b. The recipient will inform the cognizant NSF Program Officer in writing (by letter or e-mail) prior to submitting any other funding proposal to NSF or to another organization (including Federal, State, or local agencies) that involves or impacts current funded personnel or facilities under the award.
- c. In submitting the information to NSF, the awardee will include (i) the proposal title, (ii) Principal Investigator/Manager name, as applicable, (iii) name of the agency, program, or organization, (iv) name of the cognizant official at the agency, program, or organization, (v) reasons for seeking other funds, (vi) impact of the project on the NSF supported program, (vii) number of person months devoted to the project, (viii) total level of other support being sought, and (ix) the level of NSF co-sponsorship, if any. NSF may approve in advance a certain class of proposals, e.g. proposals for particular Federal Agency missions.
- d. Upon notification from the sponsor that the proposed work is to be funded, the awardee will forward to NSF a final statement of work, a final budget, and any modifications to the documentation of the original criteria in response to the review. NSF may conduct retrospective reviews of such proposals; the awardee will maintain files of all such proposals to be available to NSF on request.
- e. The awardee must indicate in proposals submitted to Federal agencies that funding, if approved, will be accomplished through use of an interagency fund transfer between NSF and the other Federal agency. When interagency fund transfers are used, the awardee must carry out activities funded by other Federal agencies in accordance with those agreements. However, there may be instances when use of an interagency fund transfer is not desirable. In those instances, the awardee must indicate to NSF (see section b. above) in the documentation referred to above, its preference to accept funds directly from another Federal agency and must submit justification for such direct funding. Such requests are subject to prior approval of the cognizant NSF Program Officer.

66. Contract Requirements

a. NSF will exercise its responsibility for oversight and monitoring of procurements, contracts or other contractual arrangements for the purchase of materials and supplies, equipment or general support services under the award. The procedures set forth below must be followed to ensure that performance, materials and services are obtained in an effective manner and in compliance with the provisions of applicable Federal statutes and executive orders.

The awardee must obtain written approval from the cognizant NSF Grants and Agreements Officer prior to entering into a contract if the amount exceeds \$250,000 or other amount specifically identified in the agreement. Contracts clearly identified in the NSF award budget are considered approved at the time of award unless approval is withheld by the Grants and Agreements Officer. Contracts must be clearly identified in the NSF award budget on Line G6. Other. The threshold noted above also applies to cumulative increases in the value of the contractual arrangement after initial NSF approval. The awardee must not artificially segregate its procurements to lesser dollar amounts for the purpose of circumventing this requirement.

A request to enter into a contract must include, at a minimum:

1. Proposed contractual arrangement document;
2. A description of the supplies or services required;
3. Identification of the type of contract to be issued;
4. The proposed price and the recipient's cost or price analysis;
5. Identification of the proposed vendor, an explanation of why and how the proposed vendor was selected, and the degree of competition obtained; and
6. If the contract was awarded without competition, the memorandum must include a detailed justification.

b. *Assignment*

The awardee must insert a clause in all contracts subject to this article reserving its right to assign the contract to a third party should a successor awardee be selected by NSF.

The awardee must flow down appropriate provisions of the applicable cooperative agreement Financial and Administrative Terms and Conditions (CA-FATCs), and any special conditions included in the agreement must be included in the contract(s).

c. *Notification to Proceed*

NSF must review proposed activities and estimated costs for compliance with 2 CFR 200, and agency, and award specific requirements. Approval of the request does not constitute a determination by NSF of the allowability of any cost under the contract. Note: The review of contracts is necessary for verifying estimated costs and proposed activities and ensuring compliance with the terms and conditions of the award. NSF will not review the agreements for legal sufficiency.

67. Incurred Cost Submissions of Financial Expenditure Data

In accordance with the American Innovation and Competitiveness Act (Public Law 114-329), and the National Science Foundation's Research Infrastructure Guide, all awardees receiving an award of \$100 million or greater in total project costs are required to submit annual program expenditures for construction and operations and management costs for its Major facility cooperative agreements (CAs) and cooperative support agreements (CSAs) for use in any required incurred cost audit. Recipients may also be required to submit based on risk.

The recipient must submit the annual submission of financial expenditures electronically to the cognizant NSF Grants and Agreements Officer within 120 days after the end of each funding year (annual performance period). The recipient will submit the data in the format specified in the 'NSF Financial Data Collection Tool for Major Facilities' found at: https://www.nsf.gov/bfa/lfo/lfo_documents.jsp.

68. Federally-owned Property

a. Requirements for Federally-owned Real Property

1. Annual Inventory

- (a) **Submission Requirement:** The awardee must submit an annual inventory report by NSF award number for all Federally-owned real property in accordance with 2 CFR § 200.312(a). The annual inventory report must be submitted to the NSF Property Administrator, Division of Administrative Services (DAS), no later than October 15 each year using the NSF's [Central Property Inventory Repository](#) (CPIR) system. Contact the NSF Property Administrator at nsfproperty@nsf.gov for access to the CPIR system.
- (b) **Content of Annual Inventory Report:** The report should include all awardee and subawardee Federally-owned real property. In the event that the awardee is in possession of Federally-owned real property under multiple awards, the reporting must be specific to each NSF award number. The awardee may use the Office of Management and Budget's, pre-approved Post Award Reporting forms on the Grant.gov website. These forms are the SF-429, SF-429A, SF-429B, and SF-429C.

Required inventory information includes, at minimum:

- description of real property
- address of real property
- acquisition date
- land acreage or square units
- gross and usable square footage/meters
- cost and share percentage %

2. Final Inventory Report

Upon expiration of the award, the awardee must report final inventory for all Federally-owned real property under the award to the NSF Property Administrator for further agency utilization and disposition using the NSF's Central Property Inventory Repository (CPIR) system.

The final inventory report must include the same contents of the annual inventory report noted above and include the awardee's disposition request (see [PAPPG Chapter IX.D.4](#)).

b. Reservation by Government

The Government reserves the right to erect buildings (except at locations owned by the awardee, in which case awardee approval must be obtained), provide facilities and furnish materials, equipment, machinery, tools or services, including communication services, as may be needed for the work.

c. Responsibility of the Awardee

1. The awardee is responsible and accountable for the management, control and use of all property furnished or acquired under the agreement.

2. In accordance with the award specific terms of the agreement and with 2 CFR § 200.313, the awardee must maintain complete property and financial records and accounts pertaining to property furnished or acquired under the agreement.

3. The awardee must account for all Federally-owned property not consumed in the performance of the agreement until relieved of such responsibility. The awardee must furnish to the cognizant NSF Program Officer and the NSF Property Administrator all data necessary to substantiate any request for discharge from this responsibility.

4. The awardee must inform the cognizant NSF Program Officer and the NSF Property Administrator in writing when inventoried Federally-owned property for which the awardee is responsible is located at a place other than the awardee's location and is not being used in connection with the work under the agreement.

5. The awardee must report any loss or destruction of, or damage to, Government valuables in shipping per the Claims Pursuant to the Government Losses in Shipment Act, 31 CFR 361. This includes shipment inspections, record keeping, reporting of any loss, and claims for replacement.

(a) Whenever the awardee ships Federally-owned property, including scientific equipment or related works, such shipments may be subject to coverage of valuables under the Government Losses in Shipment Act. Accordingly, the awardee must follow the steps provided at 31 CFR 361.4 through 361.6. Should event of loss, destruction or damage occur, the awardee will promptly notify NSF and provide sufficient information for NSF to file such report(s) and make such claim(s) as identified at 31 CFR 361.7 through 361.9.

(b) In preparing shipments consistent with 31 CFR 361.4, the awardee must ensure that:

- (i) each shipment is inspected and verified by two responsible employees before final preparation (i.e., before sealing, locking, etc.) for delivery to the person, corporation or other entity effectuating the shipment; and
- (ii) shipment will be finally prepared for delivery in the presence of the two employees and before leaving their immediate control.

(c) If strict compliance with the provisions at (b) is impossible or impracticable, the awardee will ensure that administrative officers have made adequate provision, through the establishment of accounting controls or otherwise, for the maintenance of basic records, which will enable them to prove the extent of loss, destruction, or damage in connection with a claim.

(d) The requirements of shipments under (b) and (c) apply irrespective of the carrier or method of transportation employed in making the shipments.

(e) In accordance with 31 CFR 361.5, the awardee must ensure that a record of each shipment is maintained to include:

- (i) The name and address of the consignee designated to receive the shipment;
- (ii) A complete description of the contents of the shipment;
- (iii) The replacement value of the shipment;
- (iv) The registry number or the lock and rotary numbers, if any, under which shipped;
- (v) The number of the registry receipt, or other receipt of the carrier;
- (vi) The date and hour of delivery to the carrier;
- (vii) A record of the signatures of the employees who verified the contents of the package and witnessed its sealing;
- (viii) A record of the signature(s) of the employee(s) who thereafter had custody of the package until it was delivered to the carrier for shipment; and
- (ix) The name of the carrier.
- (x) The awardee must preserve, until assured that shipment has been completed and no claims action will be initiated, all registry receipts or other carriers' receipts, and other documents incidental to the shipments.

d. *Access to Records and Property*

The awardee agrees to provide access to all property records associated with the agreement to the authorized NSF representatives during reasonable times at the office of the awardee. In addition, access to any premises where Federally-owned property is located will be provided for the purpose of inspecting such property.

e. *Maintenance and Repair*

The awardee must maintain and administer, in accordance with sound business practice, a program for the maintenance, repair, protection and preservation of Federally-owned property so as to assure its full responsibility and usefulness for the performance of the work under the agreement.

f. *Disposition*

1. No disposition of Federally-owned property can be made without the prior written approval of the cognizant NSF Program Officer. However, in the case of trade-in or dismantle/scrap, the awardee is only required to notify the NSF Property Administrator, using the NSF's Central Property Inventory Repository (CPIR) system.

2. Federally-owned property must remain in the possession of the awardee for such period of time as required for the performance of the work under the agreement unless the cognizant NSF Program Officer determines that the interests of the Federal Government require removal of such property.

3. With the prior written authorization of the cognizant NSF Program Officer the awardee must transfer or otherwise dispose of Federally-owned property accumulated under the agreement upon the written approval of the NSF Property Administrator, using the NSF's Central Property Inventory Repository (CPIR) system. The awardee itself may seek to acquire title to such property.

The proceeds from any such transfer or disposition or the agreed price for any property, title to which is so acquired by the awardee, must be applied in reduction of any payments to be made by the NSF to the awardee under the agreement, or must otherwise be paid in such manner as the cognizant NSF Grants and Agreements Officer and cognizant Program Officer may direct.

g. Awardee's Liability for Federally-owned property

1. Except as otherwise specifically provided, the awardee will not be liable for loss or destruction of or damage to any Federally-owned property purchased or otherwise acquired by it in connection with the award unless such loss, destruction or damage results from the willful misconduct or lack of good faith on the part of any of the awardee's directors or officers, or on the part of any of her/his managers, superintendents or other equivalent representatives, who have supervision or direction of

(a) all or substantially all of the awardee's business, or

(b) all or substantially all of the awardee's operations at any one plant or separate location in which the agreement is being performed, or

(c) a separate and complete major industrial operation in connection with the performance of the agreement.

2. Unless specifically authorized by the cognizant NSF Grants and Agreements Officer (note that express statutory authority is required prior to consideration of insuring government property), the awardee will not be reimbursed for the cost of insurance covering loss or destruction of or damage to Federally-owned property.

3. In the event of loss, or destruction of, or damage to Federally-owned property, arising from any cause, the awardee must, to the extent reasonable and practical, promptly notify the cognizant NSF Program Officer, Grants and Agreements Officer and the NSF Property Administrator using the NSF's Central Property Inventory Repository (CPIR) system, and take all reasonable steps to protect the property from further damage, separate the damaged and undamaged Federally-owned property, put all the property in the best possible order and furnish to the cognizant NSF Program Officer a statement identifying:

(a) The lost, destroyed and damaged Federally-owned property;

(b) The time and origin of the loss, destruction or damage;

(c) All known interests in commingled property of which the Federally-owned property is a part; and

(d) The insurance, if any, covering any part of or interest in such commingled property.

4. The awardee, to the extent reasonable and practical, may make repairs and renovations of damaged Federally-owned property, except that major repairs and renovations must be made only with the approval of the cognizant NSF Program Officer and Grants and Agreements Officer.

5. In the event the awardee is indemnified, reimbursed, or otherwise compensated for any loss or destruction or damage to Federally-owned property, it must use the proceeds to repair, renovate or replace the Federally-owned property involved, or must otherwise reimburse the Government, as directed by the cognizant NSF Grants and Agreements Officer.

The awardee must do nothing to prejudice the Government's right to recover against third parties for any such loss, destruction or damage and, upon the request of the cognizant NSF Grants and Agreements Officer, must, at the Government's expense, furnish to the Government all reasonable assistance and cooperation (including the prosecution of suit and the execution of instruments of assignment in favor of the Government) in obtaining recovery.

6. This Article should not be construed as relieving a subrecipient from liability for loss or destruction of or damage to Federally-owned property in its possession or control, except to the extent that the subaward, with the prior written approval of the cognizant NSF Grants and Agreements Officer, may provide for the relief of the subrecipient from such liability. In the absence of such approval, the subaward must contain appropriate provisions requiring the return of all Federally-owned property in the same condition as when received except for reasonable wear and tear or for the utilization of the property in accordance with the provisions of the prime agreement.

7. Where the subrecipient has not been relieved from liability for any loss or destruction of or damage to Federally-owned property, the awardee must enforce the liability of the subrecipient for such loss or destruction of or damage to the Federally-owned property for the benefit of the Government.

69. Recipient-titled Property

- a. Final Inventory Report. Upon the expiration or termination of the agreement, the awardee must report all the Recipient-titled property to the cognizant NSF Program Officer and the NSF Property Administrator, using the NSF's Central Property Inventory Repository (CPIR) system. The report must include the same contents as noted in CA-FATC, Article 6.c.2., and as noted herein in 64.a.
- b. *Ad-Hoc*. As determined necessary by the cognizant NSF Program Officer, the NSF Property Administrator, or the cognizant NSF Grants and Agreements Officer, inventory reports or related information regarding property may be requested. The submission of any Ad-Hoc inventory report request must be submitted using the NSF's Central Property Inventory Repository (CPIR) system.

70. Financial Statement Disclosure of Federally-owned Property

If the cognizant NSF Program Officer has designated real property and equipment as Federally-owned property (FOP), the awardee must disclose the total book value of individual FOP assigned to its custody under this award as a separate line item in the balance sheet and/or as a footnote in the audited financial statements. The listing should include all the designated FOP purchased or constructed, including land and buildings under the award, or acquired by screening excess through the General Services Administration (GSA). It should also include Construction-in-Progress (CIP) or Work-in-Progress (WIP) totals for each piece of FOP. CIP is defined as real property that is in the

process of being manufactured or fabricated but is not yet complete. WIP is defined as equipment that is in the process of being manufactured or fabricated but is not yet complete. CIP and WIP consist of the costs of direct materials, direct labor, direct purchased services, and indirect costs, including general and administrative and overhead costs. Costs coded CIP or WIP should not be depreciated.

No other real property or equipment acquired under another Federal award or entity should be included as part of this award reporting. This requirement does not supersede any financial reporting requirements required by the Financial Accounting Standards Board or American Institute of Certified Public Accountants.

Book value is defined as the original cost of the asset less any depreciation or amortization expense incurred as of the audited Balance Sheet date. The Financial Statement Disclosure of Federally-owned property must be reported as required by Subpart F—Audit Requirements §200.500 - §200.520. The mailing address is: Federal Audit Clearinghouse, Bureau of the Census, 1201 E. 10th Street, Jeffersonville, IN 47132 and the web address is: <http://harvester.census.gov/sac/>.

71. Notification of Property Damage

Awardee must provide notification to the cognizant NSF Program Officer by email within twenty-four (24) hours, with a copy to the cognizant Grants and Agreements Officer, for the following incidences:

- a. The facility or any of its systems suffers estimated or actual physical property damage in excess of \$10,000, or causes estimated or actual damage to other property in excess of \$10,000;
- b. Cybersecurity incidents that may cause financial harm or loss of intellectual property created or supported in performance of the award, including malware and ransomware attacks;
- c. Cybersecurity incidents affecting the operations of facilities or the security of, or access to, scientific data, including disruption of both physical operations and business operations for a duration greater than one (1) hour;
- d. Cybersecurity incidents that affect interagency or international partners, or have national security implications;
- e. Cybersecurity incidents that affect personally identifiable information or other unauthorized release of data;
- f. Any significant or persistent attempt to gain unauthorized access to a system or its data;
- g. Any cybersecurity incident where federal law enforcement is notified.
- h. Abuse or misuse of a system or data in violation of the terms of the agreement and any limited personal use policy established by the awardee for individuals with access to its systems.

In addition to the above notification, if any of these incidents result in the inability of the awardee to carry out NSF supported research or occur during an NSF supported project, awardee must submit full report to the cognizant NSF Program Officer no later than seven (7) days after the awardee's awareness of the incident with subsequent updates to the submission as new and updated information becomes available.

The awardee must collect and preserve data, information, and reporting relevant to cybersecurity event prevention, detection, response, and investigation on all information systems over which they have control that are operated in whole or in part with NSF funding.

All ransomware attacks should be reported by the awardee in accordance with the following:
<https://www.cisa.gov/stopransomware/report-ransomware-0>

72. Master Site Plan

a. When required by the cognizant NSF Program Officer, a Master Site Plan pertaining to the facility supported under the cooperative agreement must be provided as specified below:

1. No requests for approval of rent, lease, purchase or renovation of lands, buildings, structures or facilities will be considered by the cognizant NSF Program Officer or the cognizant NSF Grants and Agreements Officer without a current Master Site Plan submitted for that fiscal year.

2. Each Master Site Plan will include:

(a) A map that identifies:

(i) The location, boundaries and acreage of Federally-owned and/or leased lands;

(ii) The location of existing buildings, structures and facilities; and

(iii) Location of proposed buildings, structures and facilities.

(b) Usage Chart that sets forth in table format:

(i) The identification of land (or segments thereof), buildings, structures or facilities use;

(ii) The placement within these of equipment types; and

(iii) An explanation, if any of these is not being utilized with recommendations for retention or disposal.

(c) A Statement of Need for additional lands, buildings, structures and facilities in addition to those above must be supported by a new space needs assessment and an updated Master Site Plan should be submitted to NSF at least two fiscal years in advance of any specific need and that includes:

(i) The statement of specific needs, including why existing space is not adequate to meet that need;

(ii) Any geographic restrictions;

(iii) A supported request that justifies rent, lease, acquisition, construction or renovation activities with associated cost estimates from qualified individuals; and

(iv) When relocating to temporary science space submit an accompanying "Temporary Science Project Relocation Plan" with actual projected Timeline and Costs for any of the above requests that will affect projects underway.

73. Lease or Purchase of Additional Space

a. Requests for NSF approval to lease or purchase additional space must include justifying documentation sufficient to assess the request, as applicable. Approval by the cognizant NSF Program Officer and the cognizant NSF Grants and Agreements Officer is required prior to:

1. Acquiring real property or interest therein with direct or indirect Federal funds provided under the agreement;
 2. Issuing, refinancing or altering bonds used to finance the acquisition of real property;
 3. Establishing new facilities; or
 4. Establishing a Lease/Purchase Space arrangement.
- b. A lease/purchase analysis for proposed space must be conducted in accordance with the requirements of [2 CFR § 200.318 "General Procurement Standards"](#).

74. Information Security

Security for all information technology (IT) systems employed in the performance of this award, including equipment and information, is the awardee's responsibility. Within 90 days of the award start date, the awardee must provide a written Summary of the policies, procedures and practices employed by the awardee as part of the awardee's IT security program, in place or planned, to protect research and education activities in support of the award.

The Summary should describe the information security program appropriate for the project including, but not limited to: roles and responsibilities, risk assessment, technical safeguards, administrative safeguards, physical safeguards, policies and procedures, awareness and training and notification procedures in the event of a cyber-security breach. The Summary should include the awardee's evaluation criteria that will measure the successful implementation of the IT Security Program. In addition, the Summary should address appropriate security measures required of all subrecipients, researchers and others who will have access to the systems employed in support of this award.

The Summary will be the basis of a dialogue which NSF will have with the awardee, directly or through community meetings. Discussions will address several topics, such as, but not limited to, evolving security concerns and concomitant cyber-security policy and procedures within the Government and at the awardee, available education and training activities in cyber-security and coordination activities among NSF awardees.

75. Software Development

Software designs, prototypes, and all documentation for the final designs developed under this agreement must be made fully transferable upon direction of NSF. NSF may make the software design, prototype, and documentation for the final design available to competitors for review during any anticipated re-competition of the project.

76. Rights in Data Necessary for the Operation and Management of the Facility

- a. Notwithstanding the CA-FATC Article entitled, "Copyrighted Material," the awardee grants to the National Science Foundation in perpetuity the right to use and reproduce data produced under this award without charge or additional expense (except for whatever reasonable costs are incurred by the awardee to reproduce the data) as necessary should NSF have a future interest in the data.
- b. The types and kinds of data deemed necessary for the operation and management of the facility, includes, but is not limited to:

1. Preventive maintenance guides
2. Preventive maintenance histories
3. Operating manuals and similar plans
4. Facility and instrument drawings (including design, shop and as-built drawings), designs and specifications
5. Schematics
6. Warranty data
7. Schedules
8. Software and manuals developed under these award funds
9. Inventories
10. Document indices
11. Subawards, contracts and vendor agreements
12. Operations reports
13. Memoranda with third parties pertaining to the award
14. Safety manuals

c. Rights acquired by NSF under this article do not include rights in any data produced solely for scientific research purposes or studies.

d. The awardee must comply with [NSF Data Management Plan](#) requirements and notify NSF prior to introducing data that was not originated under the award, if such data will be critical to operate and/or manage the facility. NSF will consider any limitations on transferability of the data to a future awardee, as well as potential complications of any proprietary claims to the data prior to approving its use.

e. The awardee must ensure that the requirements of this article flow down to all subrecipients, contractors at all tiers.

77. Health and Safety

a. The awardee must take all reasonable precautions in the performance of the work under the agreement to protect the health and safety of employees and of members of the public from all hazards and to minimize danger to life and property. The awardee must comply with all applicable health, safety, and fire protection laws, regulations, and requirements.

b. The awardee must maintain an accurate record of all cases of death, occupational disease, injury, or illness arising because of an employment incident while performing work under the agreement.

c. Awardee must provide notification to the cognizant NSF Program Officer by email within twenty-four (24) hours, with a copy to the cognizant Grants and Agreements Officer, for the following incidences involving an employee, visiting scientist, or member of the public as a result of their work under the agreement:

- i. Any fatality;
- ii. Any injury or illness that results in loss of consciousness or requires medical treatment beyond first aid;
- iii. Any injury or illness that results in days away from work or otherwise impacts an individual's ability to work.

A full report of the cause of the incident must be submitted to the cognizant NSF Program Officer no later than seven (7) days after the awardee's awareness of the incident with subsequent updates as new or updated information becomes available.

78. Notice to the Government of Labor Disputes

a. If the Awardee has knowledge that any actual or potential labor dispute is delaying or threatens to delay the timely performance of the agreement, the awardee must immediately give notice, including all relevant information, to the cognizant NSF Grants and Agreements Officer.

b. The awardee agrees to insert the substance of this article in any subaward, contract or other contractual arrangement to which a labor dispute may delay the timely performance of the agreement. Each contract must provide that in the event its timely performance is delayed or threatened by delay by any actual or potential labor dispute, the contractor must immediately notify the next higher tier contractor or the prime awardee, as the case may be of all relevant information concerning the dispute.

79. Environmental Compliance

The Awardee acknowledges that NSF, as a federal agency, must satisfy its compliance obligations under federal environmental laws, including the National Environmental Policy Act, 42 USC §§ 4321, *et seq.*, the National Historic Preservation Act, 54 USC §§ 300101-470, *et seq.*, and the Endangered Species Act, 16 USC §§ 1531, *et seq.* The Awardee must cooperate to the fullest extent possible with NSF's efforts to meet those obligations for any proposed activities warranting such compliance.

The Awardee must not undertake any activity that may be subject to federal environmental laws until NSF has satisfied its environmental compliance obligations, as evidenced in writing by the cognizant NSF Grants and Agreements Officer.

80. Notice to NSF of Environmental Liability

The awardee must exercise due care in assessing government property under the agreement and notify the cognizant NSF Program Officer, Grants and Agreements Officer, and NSF Property Administrator (nsfproperty@nsf.gov) promptly in the event of imminent or actual environmental contamination or the need for environmental cleanup (including, but not limited to, contamination or cleanup resulting from an accident connected to or arising from the government property, or the presence, leakage or spill of hazardous materials) in accordance with National Environmental Policy Act of 1969 - NEPA, as amended (Public Law 91-190). Such notice must be made as soon as practicable following any immediate mitigation efforts, as appropriate, and contacts made to requisite agencies.

Notice to NSF must be made no later than 48 hours after the awardee's knowledge of the event. Examples of due care may include, but are not limited to, visual site inspection of any portions of the property where environmental contamination is likely or suspected, or other reasonable measures.

81. Knowledge Management

The awardee should participate in NSF's Knowledge Management Program to foster a learning culture across NSF's research infrastructure portfolio. Participation may include but is not limited to: sending appropriate staff to the annual Research Infrastructure Workshop; presenting lessons

learned or good practices at the annual Workshop; participation in the Workshop Planning Committee; or providing lessons learned or good practices to NSF through either the Workshop Planning Committee, the cognizant NSF Program Officer or Grants and Agreements Officer.

82. Project Personnel and Competencies

NSF's research infrastructure portfolio requires skilled people that collectively possess a broad range of professional competencies. The minimum set of competencies NSF considers essential for managing its major facilities are detailed in NSF's [Research Infrastructure Guide](#), section 4.6.6.

83. Environmental and Historic Preservation Compliance

The Awardee acknowledges that NSF, as a federal agency, must satisfy its compliance obligations under federal environmental laws, including the National Environmental Policy Act, 42 USC §§ 4321, et seq., the National Historic Preservation Act, 54 USC §§ 300101-470470, et seq., and the Endangered Species Act, 16 USC §§ 1531, et seq. The Awardee must cooperate to the fullest extent possible with NSF's efforts to meet those obligations for any proposed activities warranting such compliance. The awardee will ensure that any contracts made under this award will be subject to this same condition.

The Awardee must not undertake any activity that may be subject to federal environmental laws until NSF has satisfied its environmental compliance obligations, as evidenced in writing by the cognizant NSF Grants and Agreements Officer. In the event that any cultural or historic materials are exposed, all construction work must immediately cease, and the awardee will contact the NSF cognizant Program Official, the Grants and Agreements Official, within 48 hours of becoming aware of the exposure of cultural or historic materials.

Additional Supplemental Financial & Administrative Terms and Conditions for Federally Funded Research and Development Centers

The CA-FATC are supplemented with the following additional supplemental Financial & Administrative Terms and Conditions that are specific to Federally Funded Research and Development Centers and do not apply to Major Multi-User Research Facility Projects.

1. Authorization and Consent

The Government hereby gives its authorization and consent for all use and manufacture of any invention described in and covered by a patent of the United States in the performance of this cooperative agreement or any part hereof or any amendment hereto or any subaward hereunder (including any lower-tier subaward).

2. Radio Frequency Assignments

No equipment requiring frequency assignment should be tested and operated until a formal assignment of the necessary frequencies has been made pursuant to Section 31.12(c) of Office of Management and Budget Circular No. A-11, and Section 8.2.5 of the Manual of Regulations and Procedures for Federal Radio Frequency Management, United States Department of Commerce, National Telecommunications and Information Administration. All requests for radio frequency assignments required in support of the agreement should be submitted to the NSF's Electromagnetic Spectrum Management Unit (ESMU) via esm@nsf.gov not less than 120 days before the date that the frequency assignment is required. NSF will notify the awardee of the approval or the status of the request 60 days after submission of the request to the ESMU.

3. General Services Administration Sources of Supply

The awardee is authorized to utilize GSA supply sources for goods and services, including the use of interagency motor pool vehicles and related services. The awardee will comply with applicable GSA regulations and NSF instructions concerning purchase from GSA sources of supply.

4. Non-Renewal of the Cooperative Agreement

In the event that the agreement is not renewed, the awardee agrees to provide for an orderly and efficient transition to the successor awardee selected by NSF.

NSF agrees to provide written notice fifteen months prior to non-renewal of the cooperative agreement, unless the notice is not possible due to an Executive or Congressional mandate.

Upon non-renewal notification, the awardee must submit to NSF a comprehensive cost estimate and analysis of costs related to the agreement termination or non-renewal that have been documented and verified by an audit performed by an independent certified public accountant (hereafter referred to as audit). These costs may include medical insurance, severance pay or other costs for awardee employees under this agreement. The awardee also may submit costs related to the awardee nonrenewal of subawards related to work supported by this agreement.

Determination of the allowability of these costs and the consideration of funds available to NSF to pay these costs will be made by NSF at the time of termination or nonrenewal. NSF will make every effort to obtain funding sufficient to cover the allowed costs subject to the availability of funds for this purpose. Nothing, however, in this Article may be interpreted to imply that the United States Congress will appropriate funds to meet the requirements of this Article.

5. Motor Vehicle Management

The awardee acknowledges that NSF must satisfy its compliance obligations under Federal motor vehicle policies. In cases where the cognizant NSF Program Officer has designated any motor vehicles as Federally-owned property, the awardee must adhere to [Federal Management Regulation 41 CFR 102-34](#), Motor Vehicle Management.