

George E. Brown, Jr. Network for Earthquake Engineering Simulation (NEES)

NEES Site Visit Protocol

V4.0

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NEEScomm Contact Information

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Introduction and Purpose

As a prime recipient of federal grant funds, Purdue University is viewed as the sponsor of the activity and must monitor the activities of sub-recipients. This protocol has been developed in order to comply with OMB Circular A-133 "Audits of Institutions of Higher Education and Other Non-Profit Institutions", which requires that the prime recipient be responsible for activities of the sub-recipients, monitor their performance, and review their audits. NEEScomm and Purdue University Business Services monitor sub-recipients for performance, cost, and compliance with applicable regulations, including reporting requirements. The requirements for sub-recipient monitoring are contained in the following documents:

- 31 USC 7502(f) (2) (B) (Single Audit Act Amendments of 1996 (Pub. L. No. 104-156));
- OMB Circular A-133 (§__.225, §__.310(d)(5), §__.400(d));
- OMB Circular A-110 (2 CFR section 215.51(a));
- Federal awarding agency regulations (FAR), and the terms and conditions of the award.

Additionally, the National Science Foundation (NSF) outlines several responsibilities for the NEES Equipment Sites supported under the NEES Cooperative Agreement. These responsibilities are documented in the program solicitation for NEES Ops (NSF 08-574).

In the development of these protocols, these requirements and responsibilities were grouped into different review areas to encompass all aspects of NEES equipment site operations. This approach allows subject matter experts to focus on their respective areas. The review areas are:

- Environment, Health and Safety (EH&S), Physical Security, and Emergency Preparedness;
- Facility Management (FM), Equipment, and Research Project Support;
- Budget, Finances, and Contracts (BFC);
- Information Technology (IT); and
- Education, Outreach, and Training (EOT)

Site Goals were identified based on the responsibilities outlined in the NEES Operations solicitation (NSF 08-574) and from the NSF Business Systems Review (BSR) Guidelines (v3.1). These goals were assigned to the different review areas listed above. The goals and corresponding review areas are listed in Table 1.

Table 1. Equipment Site Goals		
Goal	Source	Review Area
Develop a productive working partnership with the NEES operations awardee and its partner organizations for all aspects of operations.	NSF 08-574	FM, IT, EOT
Operate as a shared-use facility, available for experimentation on-site or in the field and through telepresence, for researchers from other organizations. This includes providing equipment, instrumentation, and sensors; data acquisition; local data storage; technician support; information technology; space for specimen construction and demolition; and office space for visiting faculty and students.	NSF 08-574	FM
Maintain a functioning high performance Internet2 connection.	NSF 08-574	IT
Work with the NEES operations awardee to develop annual equipment site goals, work plan, priorities, and budget in accordance with a work breakdown structure (WBS) and dictionary.	NSF 08-574	IT
Hire and supervise the university's equipment site personnel. Staffing at each equipment site typically includes a site Principal Investigator, a full-time site operations manager, a full-time information technology administrator, technician(s), and other technical staff.	NSF 08-574	FM
Assign appropriate proportion of the costs for preventative maintenance; calibration; repairs; and equipment, instrumentation, and sensor replacement and upgrades to the NSF-supported NEES operations award and to the university.	NSF 08-574	FM
Maintain all equipment, instrumentation, sensors, software, data acquisition, computers, and documentation developed or acquired during the Major Research Equipment and Facility Construction (MREFC) phase or under the current NEES operations cooperative agreement, including routine calibrations.	NSF 08-574	FM
Ensure the physical security of all equipment hardware.	NSF 08-574	EH&S
Maintain an annualized equipment maintenance budget for upgrade or replacement of minor equipment, instrumentation, computers, and sensors.	NSF 08-574	FM
Maintain a local website that has current information for users.	NSF 08-574	IT
Maintain and inventory of equipment, instrumentation, sensors, personnel, documentation, contact information, and other information for users in a network-wide equipment site database.	NSF 08-574	FM
Participate in education and outreach activities coordinated by the NEES operations awardee.	NSF 08-574	EOT
Coordinate the scheduling of shared-use research and education projects with the NEES operations awardee.	NSF 08-574	FM
Provide periodic equipment site training workshops.	NSF 08-574	EOT
Support users during all phases of experimentation, which may include planning, instrumentation set-up, testing protocols, testing, local data archiving, and centrally archiving experimental data (users are responsible for curation and permanent data archival in the NEES data repository).	NSF 08-574	FM
Assign appropriate user fee structures for academic, industry, government, international, and other researchers for costs not covered by the subaward.	NSF 08-574	FM
Comply with all university, government, and/or awardee required environmental, safety, and health standards, regulations, and monitoring requirements, including maintaining safety equipment and web-posted safety plans that equipment site staff and users must follow. Users of the NEES mobile field equipment are responsible for obtaining permits required by the field site and for ensuring that their project complies with all environmental regulations at the test location.	NSF 08-574	EH&S
Comply with all university and NEES operations awardee cyber security requirements.	NSF 08-574	IT
Provide individual equipment site information and/or participation needed for the NEES operations awardee to meet the NSF reporting and review requirements listed in the solicitation.	NSF 08-574	FM
A management structure should be in place to carry out the general management responsibilities for the facility that allows the Subrecipient to ensure compliance with the subaward terms and conditions and is complemented by policies and procedures that ensure ethical standards and regulatory compliance is maintained.	NSF BSR Guide v3.1	BFC
The Subrecipient should have a system in place to ensure compliance with the terms and conditions of the subaward.	NSF BSR Guide v3.1	BFC
The Subrecipient should have an established process to ensure that budgets are adjusted in response to changes affecting the facility.	NSF BSR Guide v3.1	BFC
The Subrecipient should have an adequate accounting system that is compliant with the applicable accepted cost principles (2 CFR 220, 2 CFR 230, FAR Part 31), administrative requirements (2 CFR 215), and internal policies and procedures.	NSF BSR Guide v3.1	BFC
The Subrecipient should have a system in place to ensure compliance with the terms and conditions of the subaward for financial reporting that includes have adequate controls for preparing accurate and timely cash requests and financial reports.	NSF BSR Guide v3.1	BFC
The Subrecipient should have policies and procedures that comply with federal regulations for acquisition of property and equipment. In addition, the inventory and recordkeeping practices should be in compliance with federal requirements and should be maintained accurately.	NSF BSR Guide v3.1	BFC

This protocol serves to provide the framework for NEES equipment site visits conducted by NEEScomm and Purdue University. The site visit protocol is part of the overall NEEScomm/Purdue subawardee-monitoring framework as illustrated in Figure 1.

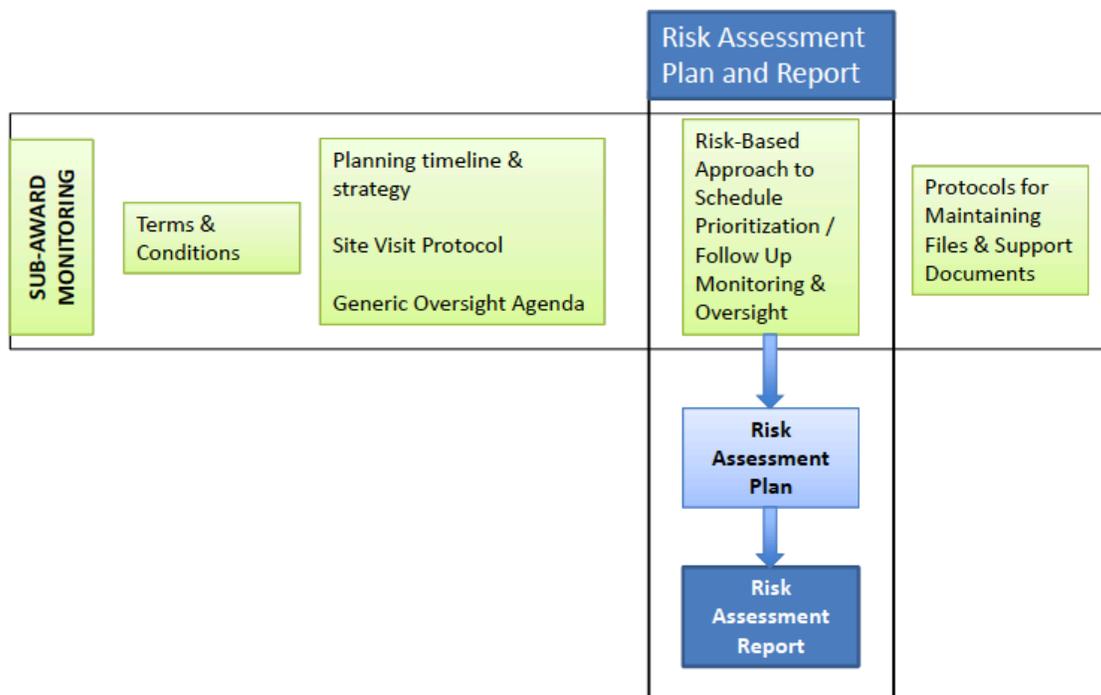


Figure 1. Overview of NEEScomm/Purdue Subaward Monitoring Framework

Site Visit Protocol Overview

The document contains an overview of the site visit activities from Pre-Site Visit assessments to Post-Site Visit Follow-Up and Monitoring. Additionally, this protocol contains two appendices; (1) A Site Visit Agenda; and (2) Checklists to be utilized by the subject matter experts during the conduct of the reviews.

Site Visit Participants

The following individuals are involved in the Site Visit Process (Pre-Site Visit, Site Visit, and Post-Site Visit) and their associated roles.

Director of Site Operations

- Primary contact for NEEScomm.
- Subject matter expert for EH&S and FM areas.

NEEScomm Business Manager

- Subject matter expert for BFC area.

Assistant Director SPS/NEEScomm Field Office

- Subject matter expert for BFC area.

NEEScomm IT Director

- Subject matter expert for IT area.

NEEScomm EOT Director

- Subject matter expert for IT area.

Assistant Director for Financial Affairs – Discovery Park

- Subject matter expert for BFC area.

Director of Sponsored Program Services, Purdue University

- Subject matter expert for BFC area.

Risk Manager, Insurance Services, Purdue University

- Subject matter expert for BFC area.

Senior Director of Environmental Health and Public Safety, Purdue University

- Subject matter expert for EH&S area.

Director, Radiological and Environmental Management, Purdue University

- Subject matter expert for EH&S area.

Director of Internal Audit, Purdue University

- Subject matter expert for Risk Assessment.

Equipment Site PI

- Primary contact for Site.
- Coordinates involvement of other site institution personnel.

Overview of Site Visit Activities

The NEEScomm site visits to the 14 NEES equipment sites will take place in three distinct phases (Figure 2). The bullet points below summarize each phase, followed by more detailed information.

- **PHASE 1: The Pre-Site Visit phase** - will begin the review process and include the Risk Assessment and Data Review, Site Visit Scheduling, and Site Visit Preparations. This phase is estimated to take 4 months, with the majority of that time being spent on the Risk Assessment. The Pre-Site Visit findings will be used to prioritize which sites should be visited and to set the agenda for the Site Visit.
- **PHASE 2: The Site Visit phase** - consists of the actual on-site review of the equipment site. The time for conducting the site visits is estimated to be between 2-3 months. However, the actual Site Visit is estimated to take 2 days. The purpose of the Site Visit will be to validate findings of the pre-site visit activities, to address any review items that need correction, to attain additional materials for documentation purposes, gain a better understanding of site operations, and general due diligence.
- **PHASE 3: The Post-Site Visit phase** - includes the report writing activity (estimated to take 1 month) and the follow-up and monitoring activities, which will continue until all items identified in the Site Visit as needing correction have been addressed.

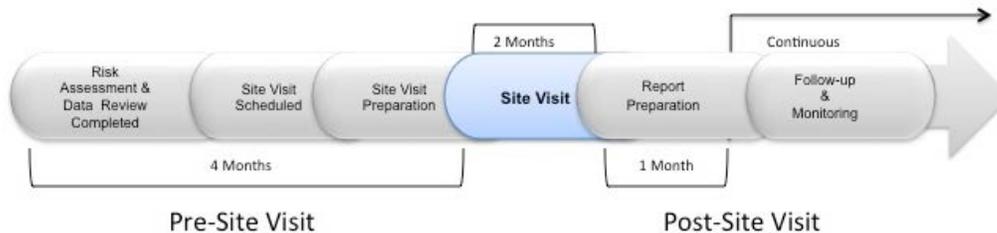


Figure 2. Timeline of Site Visit Activities

The following is a detailed outline of each Site Visit Phase.

1. PHASE 1: Pre-Site Visit

a. Risk Assessment

- Anticipated Date for Risk Assessment and Data Review
 - October 1 – December 31
- A Risk Assessment is completed for each site utilizing the NEES Site Risk Assessment Plan. The areas which will be assessed are:
 - Environment, Health and Safety (EH&S), Physical Security, and Emergency Preparedness;
 - Facility Management, Equipment, and Research Project Support;
 - Budget, Finances, and Contracts;
 - Information Technology (IT); and
 - Education, Outreach, and Training (EOT).
- A Risk Assessment Report is produced. The Risk Assessment Report contains the background on the Risk Assessment methodology and risk assessment results, including a prioritization of sites selected for a site visit.

b. Site Visit Scheduling

- Anticipated Date for Site Visit Scheduling
 - January 1 – January 31
- NEEScomm contacts the NEES Program Director at NSF to discuss findings from Risk Assessment and to coordinate the scheduling of the NEEScomm site visits with the Program Director's planned visits.
- Individual Sites are contacted to schedule the site visit.
- Subject matter experts from NEEScomm and Purdue University are identified for participation in the site visit. Typically, the list of reviewers consists of the following positions:
 - Center Director or Deputy Center Director
 - Director of Site Operations
 - IT Director
 - EOT Director
 - Business Manager
 - Sponsored Programs Manager
 - Site Operations Engineer

c. Site Visit Preparation

- Anticipated Date for Site Visit Preparation

- 1st Visit: January 1 – January 31
- 2nd Visit: July 1 – July 31
- 3rd Visit: September 1 – September 30
- A document request will be sent to the site prior to the site visit. The DSO will send the request to the site PI and the NEEScomm SPS Field Office will send the request to the site's sponsored programs office. The documents requested will coincide with findings from the Risk Assessment as well as requirements from the Cooperative Agreement Terms & Conditions. The list of documents requested will be determined in consultation with the SMEs. This will occur approximately 4 weeks prior to the site visit. The documents will need to be returned to the DSO, by email to the DSO approximately 2 weeks prior to the site visit.
- Review documents may include but are not limited to:
 - Annual Work Plan
 - Year-End Reconciliation Invoice,
 - Annual Financial Report
 - Carry Forward Request
 - Site Safety Plan
 - Site Scheduling Documents
 - Equipment Inventory
 - Cybersecurity Plan
 - EOT Assessments
 - A-133 Review
- Agenda and Logistics
 - Based on the results of the site visit preparations, a final agenda (see draft agenda, Appendix 1) is developed by NEEScomm.
 - The agenda is distributed to the site in advance of the Site Visit
 - NEEScomm works with the Site PI to ensure proper individuals from the equipment site and the equipment site's institution are available based on the requirements of the agenda. At minimum, site counterparts to the individuals listed in item 1.b. above should plan to participate in the site review.
 - NEEScomm notifies the institution's administrative contact of any site visits requiring personnel from the university's central administration.

2. PHASE 2: Site Visit

- a. NEEScomm visits the facilities identified in the risk assessment phases
 - Anticipated Dates for Site Visits (sites with highest risk will be scheduled first)
 - 1st Site Visit: February 1 – March 31
 - 2nd Site Visit: August 1 – September 30
 - 3rd Site Visit: October 1 – November 30
- b. NEEScomm utilizes the following agenda (Appendix 1) for the site visit:

- Introduction and overview
 - Individual breakout sessions by review area
 - Tour of the facility
 - Site debriefing and wrap up
 - Compilation of site visit documentation
- c. NEEScomm collects any supplementary information needed to complete the review and report during the site visit.
- d. NEEScomm utilizes a checklist during the site visit (see Appendix 2)

3. PHASE 3: Post Site-Visit

- a. Report Preparation
- Within 1 month of returning from the Site Visit, a report is produced and returned to the site.
 - The site responds to the report within one month of receiving the report and NEEScomm works with the site to develop a follow-up plan. Once the site has responded to the report, the report, site response, and follow-up plan are submitted to the NSF Program Director.
 - The final document is retained within NEEScomm's and Purdue University's document management systems.
- b. Follow-up & Monitoring
- A follow-up plan is developed by the site and NEEScomm.
 - The NEEScomm Site Operations Team and Purdue University's Business Services Team work with the site to closely monitor their progress on improvements.
 - Progress on the follow-up plan is documented and reported to the NSF Program Director in quarterly reports.
 - The monitoring period will continue until follow-up items are addressed. Typically, this phase will take no longer than one year from the completion of the site visit.

Document Retention

All documentation obtained and generated during the pre-site visit, site visit, and post-site visit phases will be retained in accordance with the NEEScomm Protocols for Maintaining Files and Support Documents.

Please see the following pages for Appendix 1 and 2.

Appendix 1 – Draft Agenda for NEEScomm Site Visits

	Environment, Health & Safety	Facility Mgmt.	Finances & Contracts	Cyber Security & IT	EOT
Day 1					
8:00 – 8:15	Introductions				
8:15 – 9:15	Environment, Health & Safety		Finances & Contracts	Cyber Security & IT	
9:15-10:15		Facility Mgmt.			
10:15-10:30	Break				
10:30-11:00		Facility Mgmt. (cont.)	Finances & Contract (cont.)	Cyber Security & IT (cont.)	
11:00-12:00					EOT
12:00-1:00	Lunch				
1:00-2:30	Lab Tour				
2:30-3:30	NEEScomm status review				
3:30-4:30	Follow-up in particular area as needed				
4:30-5:00	Daily Debrief				
Day 2					
8:00-12:00	NEEScomm report writing				
1:00-2:00	NEEScomm/Site Debrief				

Notes: Activities on Day 1 may be scheduled alternatively depending on availability of personnel. Day 2 report writing will be scheduled at the discretion of NEEScomm.

Appendix 2: NEEScomm Site Visit Check List

1. EH&S, Physical Security, and Emergency Preparedness

GOAL: *Comply with all university, government, and/or awardee required environmental, safety, and health standards, regulations, and monitoring requirements, including maintaining safety equipment and web-posted safety plans that equipment site staff and users must follow. Users of the NEES mobile field equipment are responsible for obtaining permits required by the field site and for ensuring that their project complies with all environmental regulations at the test location.*

1.1 Safety Policy

- a. Does the site's safety policy include a notification requirement, PPE requirements, a corrective action requirement, and a section on regular inspections?
- b. Has the safety policy been updated within the past 12 months?
- c. Is the safety policy posted on the site's homepage?

1.2 Safety Incidents

- a. Have any safety incidents occurred within the past 12 months?
- b. Did the site promptly report the safety incident to the site's institution and to NEEScomm?
- c. If corrective action was required, describe corrective actions taken.
- d. How does the site maintain documentation on all safety related incidents/investigations?

1.3 Safety Officer

- a. Who is the site's designated safety officer?
- b. How often are safety inspections conducted?
- c. When was the last safety inspection conducted?
- d. What were the results of the safety inspection?
- e. How were the safety inspection recommendations addressed?

1.4 User Safety Training and Policies

- a. Are users properly notified of safety policies and procedures?
- b. Does the site provide documented safety training for users?
- c. Does the site work with the user to develop risk mitigations for projects as necessary?
- d. Does the site maintain documentation for all safety training?

1.5 Environmental Regulations

- a. Are there any environmental regulations that the site needs to comply with?
- b. How does the site comply with the regulations?
- c. Have there been any environmental incidents in the last 12 months?

1.6 Emergency Preparedness

- a. Does the site have a hazard response plan?
- b. If utilizing the university hazard response plan, how does the site comply with the policy?
- c. Has the site had any hazard incidents within the past 12 months?

GOAL: *Ensure the physical security of all equipment hardware.*

1.7 Physical Security

- a. What mechanisms are in place to ensure the physical security of the equipment?
- b. Has the site had any issues with security?
- c. What actions were taken to correct the issues?

2. Facility Management, Equipment and Research Project Support

GOAL: *Develop a productive working partnership with the NEES operations awardee and its partner organizations for all aspects of operations.*

2.1 Collaborative Partnerships

- a. How does the equipment site collaborate with NEEScomm Site Operations?
- b. How does the equipment site collaborate with other NEES facilities?

GOAL: *Operate as a shared-use facility that is available to researchers from other organizations for experimentation on-site, in the field or through telepresence. This includes providing equipment, instrumentation, and sensors; data acquisition; local data storage; technician support; information technology; space for specimen construction and demolition; and office space for visiting faculty and students.*

2.2 Accessibility as a Shared-Use Facility

- a. What telepresence capabilities are available at the site?
- b. How have researchers taken advantage of the telepresence capabilities?
- c. What sensors are available for users?
- d. Is the data acquisition system available for users?
- e. What technicians do the site support?
- f. What IT support is provided to researchers?
- g. Does the site have adequate space for specimen construction and demolition?
- h. What office space is provided for researchers?
- i. Is the major equipment funded under the Major Research Equipment and Facility Construction (MREFC) phase available for researchers?
- j. How much time has the equipment been available for use?
- k. How often has the equipment been utilized?

GOAL: *Work with the NEES operations awardee to develop annual equipment site goals, work plan, priorities, and budget in accordance with a work breakdown structure (WBS) and dictionary. Also to maintain an annualized equipment maintenance budget for upgrade or replacement of minor equipment, instrumentation, computers, and sensors.*

2.3 Equipment Site Annual Goals

- a. What are the equipment site's annual goals?
- b. Has the equipment site met its annual goals?
- c. How does the equipment site track progress towards its goals?

2.4 Annual Work Plan Development

- a. Research Support
 - i. How many projects does the site support?
 - ii. Are the projects progressing according to the plan?
 - iii. Does the budget expended match the research progress reported?
 - iv. Does the site have any projects that are reaching the 6-year NSF time limit?
- b. Required Base Services
 - i. What PMCR and Safety activities has the site planned?
 - ii. Are the planned activities progressing according to the plan?
 - iii. Does the budget expended match the progress reported?

- c. Capacity Building Initiatives
 - i. What Capacity Building Initiatives has the site planned?
 - ii. Are the planned activities progressing according to the plan?
 - iii. Does the budget expensed match the progress reported?
- d. Network Initiatives
 - i. What Network EOT, Community IT, and Network Resource Sharing activities have the site planned?
 - ii. Are the planned activities progressing according to the plan?
 - iii. Does the budget expensed match the progress reported?
- e. Annualized Equipment Maintenance (AEM) Account
 - i. Does the site budget in an AEM?
 - ii. For what has the site utilized the account in the past year?
 - iii. How does the site track AEM funds?
- f. Supplements
 - i. For what has the site received supplements in the last year?
 - ii. Are the planned activities progressing according to the plan?
 - iii. Does the budget expensed match the progress reported?

GOAL: *Hire and supervise the university's equipment site personnel. Staffing at each equipment site typically includes a site Principal Investigator, a full-time site operations manager, a full-time information technology administrator, technician(s), and other technical staff.*

2.5 Personnel

- a. Is the equipment site fully staffed?
- b. What positions are vacant?
- c. How long have the positions been vacant?
- d. What actions has the equipment site taken to fill vacant positions?
- e. Does the site follow university policies regarding hiring?
- f. Does the site review employee performance annually?
- g. How does the site ensure employees are aware of HR policies?
- h. Have there been any changes in key personnel?
- i. Does the site have a succession plan?

GOAL: *Assign appropriate proportion of the costs for preventative maintenance; calibration; repairs; and equipment, instrumentation, and sensor replacement and upgrades to the NSF-supported NEES operations subaward and to the university.*

2.6 Cost Appropriations

- a. How does the site develop the budget for maintaining and calibrating the equipment?
- b. Has the equipment site expended funds according to this plan?
- c. Has the equipment site budgeted or sought funding for equipment upgrades?

2.7 Network Technology Upgrades

- a. Was the site part of the Network Technology Upgrade proposal?
- b. What is the status of the upgrade?
- c. Does the budget expensed match the progress reported?

- d. How does the site track these funds?

GOAL: *Maintain all equipment, instrumentation, sensors, software, data acquisition, computers, and documentation developed or acquired during the Major Research Equipment and Facility Construction (MREFC) phase or under the current NEES operations award, including routine calibrations.*

2.8 Equipment Maintenance

- a. Is there any equipment that is at an unusually high risk of failure, or if it did fail, would have a significant impact on the research project schedule?
- b. Is the NEES equipment functional?
- c. Has the NEES equipment been calibrated?
- d. Has there been any downtime due to equipment failures?
- e. What steps did the equipment site take to repair the equipment?
- f. What was the effect on project schedules?
- g. What equipment upgrades has the equipment site made?
- h. Does the site have a multi-year maintenance plan including funding needs?

GOAL: *Maintain an inventory of equipment, instrumentation, sensors, personnel, documentation, contact information, and other information for users in a network-wide equipment site database.*

2.9 Equipment Inventory

- a. Is the equipment site information regarding equipment, instrumentation, sensors, personnel, documentation, and contact information available and correct on the NEEShub?

GOAL: *Coordinate the scheduling of shared-use research and education projects with the NEEScomm.*

2.10 Scheduling

- a. Does the site follow the site scheduling protocol, and is it working?
- b. Are projects planned on schedule?
- c. How well does the site's schedule match the plan?
- d. How does the site handle deviations from the plan?
- e. If there are schedule changes, what is the budget impact?
- f. How does the site track these budget changes?

GOAL: *Support users during all phases of experimentation, which may include planning, instrumentation set-up, testing protocols, testing, local data archiving, and centrally archiving experimental data (users are responsible for curation and permanent data archival in the NEES data repository).*

2.11 User Support

- a. How does the site support research planning and instrumentation?
- b. How are the site's testing protocols developed for each project?

GOAL: *Assign appropriate user fee structures for academic, industry, government, international, and other researchers for costs not covered by the subaward.*

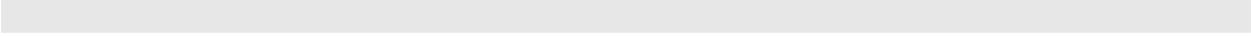
2.12 User Fees

- a. Does the site have a user fee structure?
- b. Is the user fee structure consistent with the rate establishment protocol approved by NSF?
- c. Is the fee structure transparent?
- d. Is the fee structure readily available to users?

- e. Did a recognized University Official at the site provide written documentation of approved rate structure and certify that costing principles are being followed?
- f. Did the site submit the quarterly reconciliation of the established rates?

GOAL: *Provide individual equipment site information and/or participation needed for the NEES operations awardee to meet the NSF reporting and review requirements listed in the solicitation.*

2.13 NSF Reporting

- a. Does the site meet all reporting deadlines?
 - b. Has the site provided information required for quarterly and annual reports?
 - c. Has the site provided additional requested information to meet NSF reporting and review requirements?
 - d. Is the information provided thorough and accurate?
 - e. Has the site submitted all required ESUFs and SUAs?
 - f. How cooperative is the site in providing information?
- 

3. Budget, Finances and Contracts

GOAL: *A management structure should be in place to carry out the general management responsibilities for the facility that allows the Subrecipient to ensure compliance with the subaward terms and conditions and is complemented by policies and procedures that ensure ethical standards and regulatory compliance is maintained.*

3.1 General Management and Oversight

- a. Is a management structure in place to carry out the general management responsibilities of the facility?
- b. Does the Subrecipient have a formal system for audit and oversight to ensure compliance with the subaward terms and conditions?
- c. Are policies and procedures in place to address ethical standards and regulatory compliance?

GOAL: *The Subrecipient should have a system in place to ensure compliance with the terms and conditions of the subaward.*

3.2 Award Management & Compliance

- a. Does Subrecipient have a system in place to ensure compliance with the terms and conditions of the subaward and are they following all terms and conditions of the subaward including the applicable Federal regulations and program guidance?
- b. Are systems in place for the management of records?
- c. Are systems in place to comply with the Patent/Invention Rights clause?
- d. Are systems in place to comply with the Copyright/Data Rights clause?
- e. If the Subrecipient is using any contractors/subcontractors, have all contracts been awarded through competitive procedures?

GOAL: *The Subrecipient should have an established process to ensure that budgets are adjusted in response to changes affecting the facility.*

3.3 Budget and Planning Review Module

- a. Does Subrecipient have a system in place to adequately and accurately track budgets and expenditures for the facility?

GOAL: *The Subrecipient should have an adequate accounting system that is compliant with the applicable accepted cost principles (2 CFR 220, 2 CFR 230, FAR Part 31), administrative requirements (2 CFR 215), and internal policies and procedures.*

3.4 Financial Management

- a. Does the Subrecipient have an adequate system in place to ensure that costs charged to the Subaward Agreement benefit and are properly charged to the account? Costs should be consistently treated as direct or indirect costs. Internally allocated costs, such as recharge centers, should be periodically reviewed and approved by the Subrecipient.
- b. Does the Subrecipient have a system in place for accurate and consistent recording and reporting of direct time and effort costs charged to the Subaward Agreement?
- c. Does the Subrecipient have a system in place to separately track participant support costs?

GOAL: *The Subrecipient should have a system in place to ensure compliance with the terms and conditions of the subaward for financial reporting that includes have adequate controls for preparing accurate and timely cash requests and financial reports.*

3.5 Financial Reporting

- a. Does the Subrecipient have documented policies and procedures related to the cash request and financial report preparation processes?
- b. Does the Subrecipient have procedures in place to monitor compliance with the subaward terms, conditions and specifications relevant to financial reporting?
- c. Does the Subrecipient have approved Indirect Cost rates and are they requesting the appropriate rates?

GOAL: *The Subrecipient should have policies and procedures that comply with federal regulations for acquisition of property and equipment. In addition, the inventory and recordkeeping practices should be in compliance with federal requirements and should be maintained accurately.*

3.6 Property and Equipment

- a. Does the Subrecipient maintain a physical inventory of the equipment that include a description of the equipment, a serial number or other identification number, the source of property, the acquisition date, cost of the property, percentage of federal or state participation in the cost of the property, and the location, use and condition of the property?
- b. Does the site have a fully compliant property system and are they meeting all the requirements of 2 CFR 215 relative to property?

4. Information Technology

GOAL: *Develop a productive working partnership with the NEES operations awardee and its partner organizations for all aspects of operations.*

4.1 Cyber Collaboration

- a. How does the equipment site collaborate with NEEScomm IT?
- b. How does the equipment site collaborate with other NEES facilities with respect to IT?
- c. Has the site worked with NEEScomm IT to ensure a tuned network between the site and Purdue in the last year?
- d. What performance improvements resulted from the most recent network tuning?
- e. Are there site-developed tools that have been made widely available as NEEShub tools?

GOAL: *Maintain a functioning high performance Internet2 connection (or higher).*

4.2 Connectivity

- a. Does the equipment site have a functioning high performance Internet2 connection (or better)?
- b. How does the equipment site use the connection?
- c. Are uptime metrics available for the site or university?
- d. Is there a process for resolving connectivity problems?

GOAL: *Support users during all phases of experimentation, which may include planning, instrumentation set-up, testing protocols, testing, local data archiving, off-site data archiving and centrally archiving experimental data (users are responsible for curation and permanent data archival in the NEES data repository).*

4.3 User Support

- a. How and how often does the site archive data locally?
- b. How and how often does the site have a regularly updated, off-site data back-up?
- c. Are off-site backups occurring in an automated manner?
- d. Are backups restored to ensure a restore is possible?
- e. How does the site address redundancy in terms of data and hardware?
- f. Has experimental data been uploaded to the NEEShub data repository in a timely manner?
- g. How does the site support researchers with data curation in NEEShub?
- h. What telepresence capabilities are available at the site?
- i. Do the researchers take advantage of the telepresence capabilities?
- j. Are sensors available for users?
- k. Is the data acquisition system available for users?
- l. Is sensor or DAQ training information available for new researchers?
- m. What technicians does the site support?
- n. Is there other IT support provided to researchers?
- o. Is there a process for removing user access when a user no longer works at the site?
- p. Is there a process for ensuring software license renewals occur in a timely manner?
- q. Is there a process for ensuring that hardware warranty/service renewals happen in a timely manner?
- r. Is there a process for determining and planning for new hardware and software?
- s. Are there any open IT positions? What are the plans to fill them?

- t. Did Site IT personnel training occur in the last year and is future training planned?

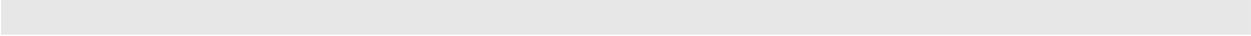
GOAL: *Maintain local website and NEEShub website that contain current information for users.*

4.4 Local Website

- a. Does the site maintain a local website?
- b. Has the website been updated with most recent information including Site contact information, active links, accurate logos, accurate award number referenced?
- c. Has the NEEShub Site Information been updated with most recent information including Site contact information, active links, and accurate logos?

GOAL: *Comply with university and NEES operations awardee cybersecurity requirements.*

4.5 Cyber Security Compliance

- a. Does the equipment site comply with the NEES cyber security policy?
 - b. Has there been a scan conducted by NEEScomm in the current project year?
 - c. What were the results of the scan?
 - d. Were any results of scans remediated?
 - e. Does the site regularly engage with their university's Cybersecurity department?
 - f. Is production-grade hardware in a secured location?
 - g. Is an inventory of actively used Operating Systems available?
 - h. Is a high-level disaster recovery plan available?
 - i. Has the site had any cybersecurity incidents?
 - j. Describe the incident(s) and what steps were taken to correct the issue?
- 

5. Education, Outreach and Training

GOAL: *Develop a productive working partnership with the NEES operations awardee and its partner organizations for all aspects of operations and participate in education and outreach activities coordinated by NEES operations awardee.*

5.1 EOT Collaboration

- a. Who is designated as the EOT coordinator for the site?
- b. How does the equipment site collaborate with NEEScomm EOT?
- c. How does the equipment site collaborate with other NEES facilities with respect to EOT?
- d. What local EOT activities does the site conduct?
- e. How often does the equipment site plan and conduct local EOT activities?
- f. What efforts are made to include underrepresented groups in your EOT activities?
- g. Do you have a partnership with local schools? If so, in what capacity do you facilitate student learning?
- h. What network EOT activities does the site participate in?
- i. How do you assess the effectiveness and quality of your EOT activities?
- j. Do you have assessment data from EOT activities available for review?
- k. Do you have diversity data from EOT activities available for review?
- l. How does the site track metrics for EOT activities?
- m. Have you contributed any EOT items to NEESacademy? If so what? If not why not?
- n. If you applied for and received supplemental funding for high impact EOT projects, please provide a progress report and status of deliverables.
- o. How does the site incorporate their EOT activities into the AWP?

GOAL: *Provide periodic equipment site training workshops.*

5.2 Workshops

- a. Has the site conducted workshops?
- b. When was the last training workshop held?
- c. To whom was your workshop directed (i.e. stakeholder)?
- d. Do you have diversity data from attendees available from your workshop?
- e. How did you assess the effectiveness and quality of your workshop?

6. Other – General Questions for NEEScomm

GOAL: *Engage in open and ongoing dialogue with NEEScomm to ensure the site and the Network as a whole is managed well and in accordance with the terms of the subaward.*

6.1 General Questions

- a. Are there areas that have not been addressed that you would like to discuss?
- b. Are there areas that NEEScomm can assist you?
- c. Are there any questions that you have for NEEScomm?