PEP Development Workshop
(especially for SBE, EHR, CISE)
Friday July 15, 2022

**INTRODUCTION (20 min)**

Housekeeping and Logistics (slide #2)
- Greetings (Slide #1)
  
Slide #2
- Recording and Materials
- Speaker Introductions
- Questions
- Flow and Breaks

Setting the Stage (slides #3 and #4)
- Workshop Objectives and Agenda
- **Mid-scale Research Infrastructure-1 (Mid-scale RI-1) | Beta site for NSF - National Science Foundation** Mid-scale Research Infrastructure (slides #3 and #4)

**BROADER CONTEXT & INVENTORY OF RELEVANT GUIDANCE DOCUMENTS (30 min)**

NSF Organization, Stakeholders and Guidance (slides #5, #6)
- National Science Foundation
  
- STRUCTURE, SELECTED KEY STAKEHOLDERS and ASSISTANCE, Programs, BFA (Large Facilities and DGA/CSB) (slide #5)
- PRECEDENCE and INVENTORY, NSF RIG, Section 1.2 (slide #6)

NSF Proposal & Award Policies and Procedures Guide (PAPPG), walkthrough (no slides)
- **nsf22001 Proposal & Award Policies & Procedures Guide (PAPPG) | NSF - National Science Foundation**
  
  - INTRODUCTION, SECTION

NSF Research Infrastructure Guide (RIG) (no slides)
- **nsf21107 Research Infrastructure Guide (RIG) (December 2021) | NSF - National Science Foundation**
  
  - INTRODUCTION, Section 1
  - LEXICON, Section 9
  - GUIDANCE FOR MID-SCALE RESEARCH INFRASTRUCTURE PROJECTS, Section 5
  - FACILITY LIFE CYCLE MANAGEMENT PLANS FOR MAJOR FACILITIES, Section 3, Project Execution Plan
  - KEY MANAGEMENT PRINCIPLES AND REQUIREMENTS FOR MAJOR FACILITIES, Sections 4.1, 4.2 and 4.3 and 4.

Break – 10 min.
PROJECT MANAGEMENT BASICS (50 min)

Triple constraint, Mindset (slides #7, #8)
- BUDGET, SCOPE, AND SCHEDULE
- MERIT REVIEW AND MINDSET

Lexicon and Example (slides #9-#16)
- SELECTED KEY TERMS (Florence): Project Execution Plan (PEP), Work Breakdown Structure (WBS), WBS Dictionary, Schedule, Budget, Total Project Cost (TPC), Basis of Estimate (BOE), Construction/Implementation, Contingency, Allowability, Cost Reasonableness

Project Execution Plan Template (no slides)
- PEP Template, Jul 2022, 1.2
- INTENT & DESIGN
- REQUIREMENTS for Mid-scale RI

Break – 10 min

PROJECT EXECUTION PLAN TEMPLATE (50 min)

- Project Execution Plan Template
- Minimum Components for Mid-scale RI
- Introduction
- Organization
- Construction Project Definition
- Configuration Control
- Acquisition
- Project Management Controls (Performance Measurement and Management)
- Cyber-Infrastructure
- Commissioning, including Concept of Operations

- Research Infrastructure Guide (RIG) - December 2021 (NSF 21-107), Table 3.4.1-1
- PEP Table 3.4.1-1, Component 1
- PEP Table 3.4.1-1 Component 2
- PEP Table 3.4.1-1 Component 4
- PEP Table 3.4.1-1 Component 8
- PEP Table 3.4.1-1 Component 9
- PEP Table 3.4.1-1 Component 10
- PEP Table 3.4.1-1 Component 12
- PEP Table 3.4.1-1 Component 13

Project Execution Plan Template Other Potential Components (no slides)
- TAILORING AND SCALING, scope and complexity
- ALIGNMENT with GAO Best Practices
Getting Assistance with Project Management

- NSF Awards Database
- NSF Community of Interest
- NSF Knowledge Gateway
- University Facilities Groups
- Internet searches
- Professional Organizations

Question & Answer
Wrap-Up (slide #17)
RECAP SESSION 1 and QUESTIONS (50 min)

Project Execution Plan, Lexicon and PEP Template

Research Infrastructure Guide (RIG) - December 2021 (NSF 21-107), Table 3.4.1-1

Question & Answer

ADVANCED TOPICS

- Risks and Opportunities
- Contingency (Budget, Schedule, and Scope)
- Cost Uncertainties (Allowances)
- Earned Value Management (EVM)
- GAO Best Practices
- Tailoring and Scaling
- Wrap-Up

• THEMES
• QUESTIONS