



# National Defense Industrial Association Program Management Systems Committee

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## DOE Peer Review Process

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**Chair, EFCOG Project Management Working Group (PMWG)**

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## *National Defense Industrial Association (NDIA)*

- *Mission –*
  - *Promote a responsive government-industry national security team*
  - *Provide a legal & ethical forum for the exchange between government & industry*
  - *Foster the development of the most innovative and superior equipment, training & support to our warfighters and first responders*
  - *Supported by corporate member companies*
- *Divisions/Committees –*
  - *37 Divisions / numerous Committees*
  - *Within the Procurement Division resides the Program Management Systems Committee (PMSC)*
    - *Goals / Objectives-*
      - *Provide the primary forum for building strong Industry & Government relationships to promote integrated program management using EVM*
      - *Foster mutual understanding and the effective development, implementation and use of EVMS*
      - *Work with DoD and other Federal agencies on improvement initiatives for the mutual benefit of both Government & Industry*
      - *Support the maintenance of the ANSI/EIA Standard 748 (EVMS) and PMSC Guides*
      - *Work with Industry & Government as the industry SME for the implementation and use of EVM*
  - *Working Groups –*
    - *Eight currently*
  - *Sponsors – NDIA Procurement Division*

## *Energy Facility Contractors Group (EFCOG)*

- *Mission –*
  - *Promote excellence in the operation, management, and integration of DOE facilities in a safe, environmentally sound, efficient and cost-effective manner*
  - *Committed to the achievement of DOE's goals through performance excellence by partnering with DOE in a collaborative and trusting environment*
  - *Facilitate forums for open communication, provide constructive feedback, and propose solutions that result in continuous improvement*
  - *Supported by corporate member companies*
- *Working Groups –*
  - *13 Working Groups*
  - *One of the “critical areas of focus” is the Project Management Working Group (PMWG)*
    - *Goals / Objectives-*
      - *Enhance project management capability to meet DOE critical mission requirements*
      - *Promote project management excellence in the execution of DOE programs by sharing best industrial practices, applying lessons learned and providing integrated recommended solutions to DOE*
    - *Subgroups –*
      - *Cost Estimating & Construction Management*
    - *Sponsors (DOE) – Office of Acquisition & Project Management (APM), Office of Environmental Management (EM), Office of Science (SC), and National Nuclear Security Administration (NNSA)*



# Department of Energy (DOE)

\* Budget numbers are nominal.

Office of the Secretary  
Dr. Steven Chu



Deputy Secretary  
Daniel B. Poneman

Associate Deputy Secretary  
Melvin G. Williams Jr.



Under Secretary  
for  
Nuclear Security

- **\$18B Budget**
- Support future military needs
- Nuclear non-proliferation
- Nuclear weapons stewardship
- Environmental Clean-up

Under Secretary  
for  
Science

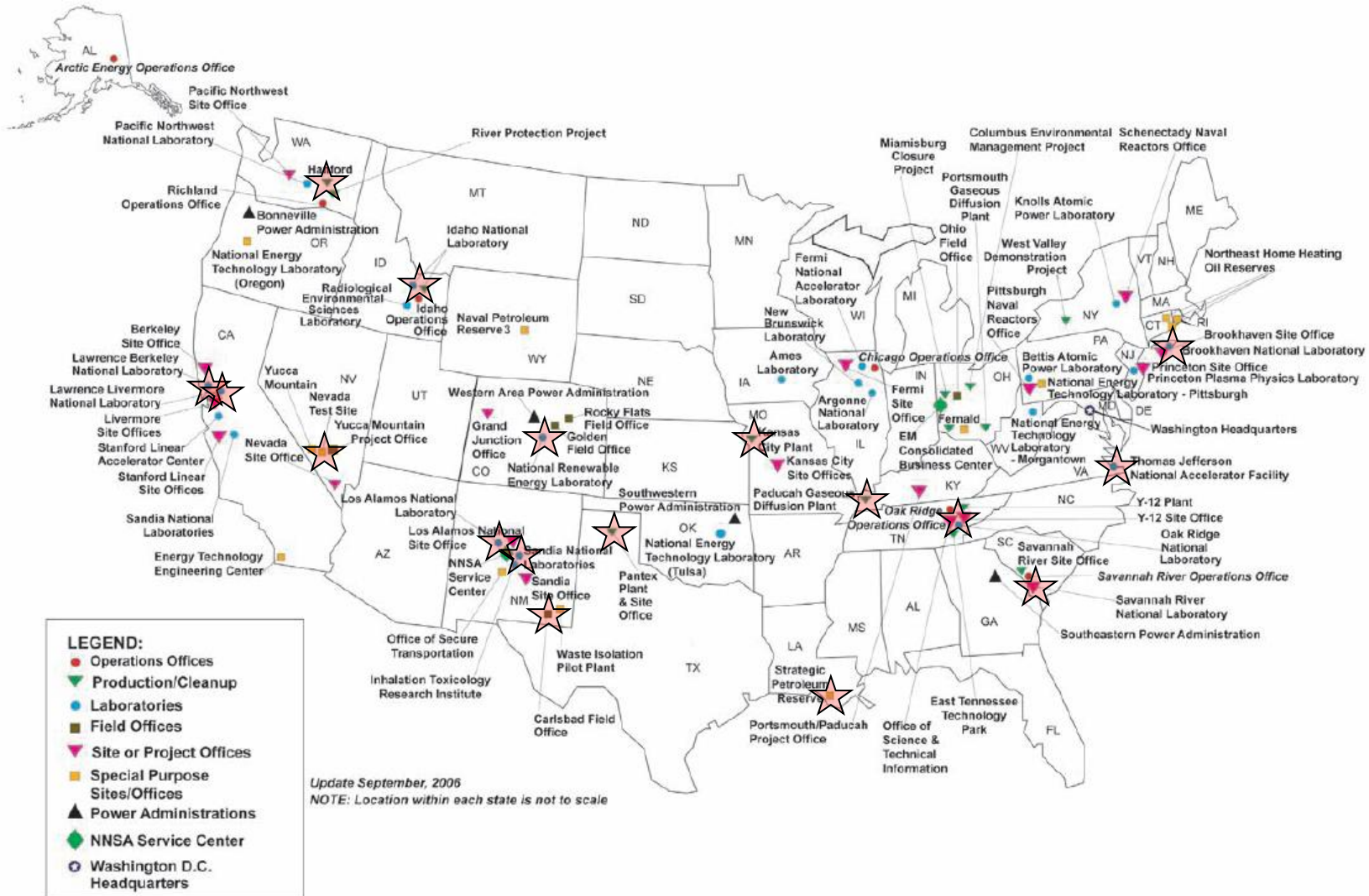
- **\$5B Budget**
- Advanced scientific computing
- Basic energy sciences
- Fusion energy
- High energy & nuclear physics
- Biological & environmental research

Under Secretary  
for  
Energy

- **\$6B Budget**
- Nuclear & fossil energy
- Energy efficiency & renewable energy
- Electricity delivery & energy reliability



# Major DOE Laboratories & Field Facilities





# Office of Acquisition and Project Management

- Corporate oversight, managerial leadership and assistance in the development of DOE policies, procedures, programs and management systems pertaining to procurement, financial assistance, contract and project management, property management and professional development.
- Project Management
  - Validate project performance baseline (scope, cost and schedule) for projects with a Total Project Cost (\*TPC)  $\geq$ \$100M
    - Conduct External Independent Review (EIRs)
    - Conduct Independent Cost Reviews/Estimates (ICRs/ICEs)
  - Monitor Project Performance on behalf of Deputy Secretary
    - All Projects with a TPC  $\geq$ \$10M
    - Oversee DOE Earned Value Management System Certification

**\* TPC = Design + Construction + Other Direct Costs**



# Project Portfolio

Program	Planning (Pre CD-2)		Execution (Post CD-2)	
	No.	\$Million	No.	\$Million
Environmental Management	19	\$34,510.0	22	\$20,194.3
Nuclear Administration	12	\$8,351.8	14	\$6,098.7
Science	20	\$8,252.4	19	\$2,310.6
Fossil Energy	0	0	1	\$72.8
Nuclear Energy	7	\$3,405.0	1	\$17.4
Energy Efficiency	0	0	6	\$307.9
<b>TOTAL</b>	<b>58</b>	<b>\$54,519.2</b>	<b>98</b>	<b>\$29,001.7</b>



# Peer Review Policy & Requirement

- **Deputy Secretary of Energy, Project Management Principles Memorandum, March 4, 2010:**

*“Numerous studies have demonstrated the benefit of cross-functional Project Peer Reviews. ... These focused, in-depth reviews are conducted by nonadvocates (Federal and M&O or other contractor experts) and support the design and development of a project. Project Peer Reviews should be conducted at least once a year for large or high visibility projects and more frequently for the most complex projects or those experiencing performance challenges...”*

- **DOE Order 413.3B, Program and Project Management for the Acquisition of Capital Assets:**

- For Projects  $\geq$  \$100M, Program Offices should conduct a Project Peer Review at least once a year using personnel independent of the project
- More frequent reviews may be warranted for:
  - Technically-complex projects
  - Project experiencing performance challenges



# Why Conduct Peer Reviews

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- Oversight** → **Independent assessment** of project performance
- Progress** → Reviews **focus the Project Team**
- Reality Check** → Project Teams have a bias for **optimistic rather than realistic** view of performance and challenges
- Collaboration** → Projects Teams often **slow to look outside for help or solutions**
- Credibility** → Successful review **usually signals Stakeholders the project is on track**
- Lessons Learned** → Project Teams and reviewers **learn from one another**





# Simplified Review Process

## Pre-Review

### Pre-Review

- Charge memo
- Committee selection
- Logistics
- Agenda
- Project information

### Review

- Plenary
- Breakouts
- Executive sessions
- More breakouts
- More executive sessions
- Closeout briefing

### Post Review

- Review Summary
- Management debriefing
- Final report
- Program manager tracks actions to address recommendations

← 3 – 4 Months →

← 2 – 4 Days →

← 1 – 2 Months →



# Charge Memo

- Developed by the Program in coordination with the appropriate office, to request a peer review
- Submitted to Committee Chair at least 8 weeks prior to on-site review
- Identifies the purpose and scope of the review
- The Charge Memo should be:
  - Clear
  - Concise
  - Answerable
  - Relevant



# Committee Chair Selection

- Is responsible for the **success of the review**
- Is responsible for the **selection of the review committee and organizing the review**
- Is **designated as early** as possible
- The Committee Chair should:
  - **Be knowledgeable** about the project
  - Have the authority and **experience commensurate** with the size and complexity of the project
  - **Be independent** of the project



# The Review Committee



- **Committee size commensurate with scale and phase of project**
  - Balance of engineers, scientists, and program/project managers
  - Balance of headquarters, site offices/laboratories and academia
  - Balance of federal and contractor personnel, and personalities
- **Pool of experts developed in close consultation with program, project, and subcommittee chairs**
- **Review Chair is the final authority on committee membership**

**Department of Energy Review of the  
National Synchrotron Light Source-II (NSLS-II) Project  
November 15-17, 2010**

**Daniel R. Lehman, DOE, Chairperson**

<b>SC1 Accelerator Component Production WBS 1.03.01/04/06/07/08</b>	<b>SC2 Accelerator Installation and Commissioning WBS 1.03.02</b>	<b>SC3 Experimental Facilities WBS 1.04 / 1.02.02</b>	<b>SC4 Controls Systems WBS 1.03.05</b>
Rod Gerig, ANL Richard Boyce, SLAC Pat Den Hartog, ANL Will Oren, TJNAF Bill Merz, TJNAF Ali Nassiri, ANL	* John Seeman, SLAC Graeme Murdoch, ORNL David Rice, Cornell James Safranek, SLAC Richard Walker, Diamond LS	* Mark Beno, ANL Zahid Hussain, LBNL Jorg Maser, ANL Mohan Ramanathan, ANL Wolfgang Sturhahn, NASA	* Ned Arnold, ANL Mark Heron, Diamond LS Karen White, ORNL
<b>SC5 Conventional Facilities WBS 1.05</b>	<b>SC6 Env., Safety and Health WBS 1.01.02 / 1.1.4</b>	<b>SC7 Cost and Schedule</b>	<b>SC8 Project Management WBS 1.01 / 1.06</b>
Joe Harkins, LBNL Steve Jack, SLAC Ron Lutha, DOE/AS	* Ian Evans, SLAC Jim Healy, SLAC	* Ron Strykowski, PPPL Kin Chao, DOE/SC Liz Dahlen, SLAC	* Mark Reichenadter, SLAC Larry Dardzinski, SLAC Joe May, DOE/TJSO Steve Meador, NSF Don Rej, LANL
<b>Observers</b>			<b>LEGEND</b>
Harriet Kung, DOE/SC Pedro Montano, DOE/SC Phil Kraushaar, DOE/SC Peter Lee, DOE/SC Susan Weber, DOE/SC Walter Lowe, DOE/SC	John Tapia, DOE/SC P. Thiyagarajan, DOE/SC Mike Holland, DOE/BHSO Frank Crescenzo, DOE/BHSO Joseph Eng, DOE/BHSO	Brian Huizenga, DOE/OECM Evelyn Landini, DOE/BHSO Angela Harvey, DOE/ASO Dean Haeffner, ANL Garth Duncan, Bechtel	SC Subcommittee * Chairperson [ ] Part-time Subcommittee Member
<b>COUNT: 33 (excluding observers)</b>			



# Procurement and Contracting Professionals

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- Procurement Directors/Contracting Officers are often part of the review committee
- Adequacy and effectiveness of procurement organization evaluated (Federal and contractor) and needed improvements recommended
- Site Office/Laboratory/project procurement process assessed (procurement planning, execution, management)
- Contract issues often central to committee discussions (incentives, deliverables, change orders, REAs, claims, etc.)



# Logistics

- Committee Chair relies upon a designated project point of contact (POC) for each review
- POC organizes and makes arrangements for the review in cooperation with Committee Chair
- The POC for logistics oversees coordination of:
  - Review meeting rooms that are of adequate size and appropriately equipped
  - Separate “break-out” rooms should be available for additional subcommittee presentations and discussions
  - Outside phone lines and the Internet access
  - Clerical support
  - Hotel accommodations, shuttle service, etc.
  - Any additional information (i.e., site access, special badging, maps and directions, etc.)
  - Project documents to be provided to the review committee



# Project Information

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- Relevant, detailed information about the project is provided to the committee **approximately 2 – 3 weeks** prior to the review
- The information **varies from project to project**; dependent on the purpose and scope of the review
- This information is typically provided via project review website
- In advance of the review, the Subcommittee Chairpersons develop a list of questions and contact their project counterparts to start the exchange of information





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# Agenda/On-Site Review

## Department of Energy Review of the National Synchrotron Light Source II (NSLS-II) Project November 15-17, 2010

### AGENDA

#### **Monday, November 15, 2010—Large Conference Room (Bldg 703)**

1:00 pm	DOE Executive Session.....	D. Lehman
1:30 pm	Welcome.....	S. Aronson
1:40 pm	NSLS-II Overview .....	S. Dierker
2:10 pm	Project Performance and Risk Management .....	A. Byon
2:30 pm	ES&H .....	S. Hoey
2:45 pm	Break	
3:00 pm	Conventional Facilities.....	M. Fallier
3:00 pm	Accelerator Systems.....	F. Willeke
4:10 pm	Experimental Facilities.....	Q. Shen
4:40 pm	Project Management and Support.....	D. Hatton
4:55 pm	Break	
5:00 pm	DOE Full Committee Executive Session .....	D. Lehman
6:30 pm	Adjourn	

#### **Tuesday, November 16, 2010**

8:00 am	Subcommittee Breakout Sessions	
12:00 pm	Lunch	
1:00 pm	Tour	
2:30 pm	Subcommittee Breakout Sessions	
4:00 pm	Subcommittee Working Sessions	
5:00 pm	DOE Full Committee Executive Session .....	D. Lehman

#### **Wednesday, November 17, 2010**

8:00 am	DOE Committee Executive Session .....	D. Lehman
9:00 am	DOE Committee Executive Session Dry Run .....	D. Lehman
11:30 am	Closeout Presentation with NSLS-II Management	
12:30 pm	Adjourn/Lunch	



# Committee Chair During the Review

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During the review, the Committee Chair's major responsibilities include:

- Ensuring that the review committee **remains focused** on the purpose and scope of the review
- Maintaining an appropriate professional code of conduct
- **Maintaining the review schedule**/managing to the agenda
- Establishing and maintaining interfaces with project staff
- **Ensure** that committee **comments and recommendations are reasonable and clear**
- **Meets with Site Office/Laboratory and Project Management teams**



# Committee During the Review

- Conducts the review using a flexible, yet disciplined process of probing, inquiry, and feedback
- **DOE does not have standard lines of inquiry (LOI).** This flexibility allows the Committee to formulate specific questions based on their experience and information provided by the Project Team
- The primary guidance document for determining LOIs is the Charge Memorandum to the review Committee Chair
- The Committee must **target the most pressing issues/barriers** to project success



# Closeout Presentation

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- Closeout briefing **presented by each Subcommittee Chair** to the combined Project Teams and management chain before leaving the site
- Committee **recommendations must be reasonable, actionable, and represent the consensus** of the committee
- Committee recommendations, including firm due dates, are **shared with the Project Team prior to closeout to eliminate surprises**



# Simplified Review Process

## Post Review

### Pre-Review

- Charge memo
- Committee selection
- Logistics
- Agenda
- Project information

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- Plenary
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# Summary Report and Management Debrief

- **Within 2 business days** of the review closeout, the Committee Chair completes a summary report that identifies status, issues, and major recommendations
- The summary report is forwarded to Program Management within 2 days of the review
- The summary report is used by the Committee Chair to **brief Program Management and the Acquisition Executive** within 5 days of the review closeout



# Final Report

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- **Within 2 business days**, the Subcommittee Chairs are requested to submit to the Committee Chair their **draft of the report sections**
- After the Committee Chair consolidates and formats the draft report, it is distributed to the **Project Team for a factual accuracy check** and to the **review committee for final comments**
- The Final Report is officially **submitted to the Program Manager and Acquisition Executive within 60 days** of the review closeout





# Addressing Recommendations and Actions

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- **Project Teams** are expected to **respond to the recommendations**
- **Program Managers are responsible** for ensuring that the **recommendations** or action items **are addressed**
- **Follow-on review(s)** may also be used to ensure that recommendations and action items are being properly addressed by the Project Team



# Summary of Key Review Elements

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- Diverse, experienced, objective, and balanced committee of experts
- Review conducted using a disciplined yet flexible process of probing, inquiry, and feedback - not checklists
- Current project information must be openly shared and honestly presented
- Review must target the most pressing issues and barriers to project success
- Recommendations must be reasonable, actionable, and represent the consensus of the committee
- Recommendations, including firm due dates, are shared with the project prior to closeout to eliminate surprises
- Closeout briefing delivered to the entire Project Team and management chain before leaving the site



# EFCOG PMWG Support

- **December 2010, Bob Raines/NNSA and Paul Bosco/OECM\* discussed use of PMWG resources to support Peer Reviews**
- **Poneman Policy designates costs as Allowable**
- **PMWG Support:**
  - 2011
    - March, MOX/Savannah River
    - July, WSB/Savannah River
  - 2012
    - January/June, MOX/Savannah River
    - June, UPF/Oak Ridge
    - August, WSB/Savannah River (Planned)

\* *OECM is now part of APM*



# PMWG Support Categories

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- **Project & General Management**
- **Cost/Schedule/Risk**
- **Commissioning & Startup**
- **ESH&Q**
- **Technical (Engineering/Construction)**
  - Working collaboratively with Engineering Practices Working Group (EPWOG) to provide niche technical reviewers when requested.



# Win/Win Situation

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- **DOE has access to best talent available.**
- **Provides professional development and networking opportunities to its members.**
- **Contractors eagerly support DOE request for support .**
- **Contractors draw best practices and lessons learned from participating on the review teams.**
- **Many PMWG members are eager to support future reviews.**



# Observations

- The specific **areas to be assessed** determine the needed **experience** and expertise of committee members
- **Influencing** committee by slanting, withholding, or overwhelming with information is **not useful**
- **“Homework”** assignments are frequent and necessary to support the committee in real-time during the review
- Individuals **new to the Peer Review process** are often **surprised** at how well the closeout comes together
- The opportunity to **share lessons learned is frequently highlighted by** reviewers and Project Team alike



# Final Thought

- Peer Reviews don't guarantee success, but have proven to be a **useful tool for the “owner” and the Project Teams to identify and address major issues**

**Management!**

**Management!**

**Management!**



# Questions?

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# Project Management Process

## “Acquisition Management System” with Critical Decision (CD) Milestones

