

**POLICY
FOR
POST OCCUPANCY EVALUATION**

**ORF Manual
OGD-1527-DPPA-05
Division of Policy and Program Assessment**

DHHS/NIH/OD/ORF

Approve:	<input checked="" type="checkbox"/>	Disapprove:	<input type="checkbox"/>
Signature:			
<u> / S / </u>		<u>February 8th 2006</u>	
Director, ORF		Date	

Policy

An indicative Post Occupancy Evaluation (POE) shall be performed on new or renovated facilities 12-18 months after the last occupant moves into the facility. Subsequently, an investigative and/or diagnostic POE may be performed on a facility based on the findings of the indicative POE if results indicate that further study is required. A POE shall be used to evaluate design and program intent against building performance.

ORF shall address the need for a POE in the Pre- program planning phase. The Program of Requirements shall include a POE for every new or renovated “whole” facility that NIH funds. POE’s will not be required for infrastructure, utility, maintenance, or operations projects unless specifically requested. A POE shall be performed on existing facilities on a 10-15 year cycle. POE’s shall be performed as time and budget permit and at the discretion of the ORF.

A. Introduction

Post Occupancy Evaluation (POE) is a systematic and standardized process used to evaluate a buildings performance during a specified period of occupancy as compared to the initial program, the design intent and existing criteria or the current mission of an existing facility.

There are three types of POEs: Indicative, Investigative and Diagnostic.

Indicative POE:

- Indicates major strengths and weaknesses of a particular building’s performance and provides data that supports the need for or against further in-depth evaluation;
- Is a simple short term process that involves selected interviews, questionnaires, walk-throughs, and document evaluation;
- Compares “big picture” building performance against existing criteria, design intent and the program.
- Typical outcome:
 - Data is used to feed back into design guidelines, criteria and policies for the things that work well and should be carried forward to future projects.
 - Identifies problems that require further study;
 - Identifies the need for corrective actions for minor problems early in the building life-cycle;
 - Lessons Learned are applied to future projects

ORF MANUAL No.: OGD-1527-DPPA-05

Title: Post Occupancy Evaluation Policy

Issuing Office: Division of Policy and Program Assessment

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Investigative POE*:

- The evaluation criteria such as a Program of Requirement, guidelines, performance standards or published literature on buildings are defined prior to initiation of the Investigative POE.
- Performed after an indicative POE indicates that the building performance requires more in depth evaluation.
- Monitors specific aspects of building performance over a period of time and compares to existing criteria and design intent and evaluates these factors.
- Process uses more resources, more sophisticated data collection and analysis methodologies than an indicative POE.
- Typical outcome:
 - Data is used to understand the cause and effect of issues in building performance.
 - Data analyses are used to design corrective action plans
 - Lessons learned are applied to future projects

Diagnostic POE*:

- Performed post-investigative POE if further data collection or analysis is required to take corrective actions or instead of an investigative POE if major design or operational flaws are discovered in the indicative phase POE;
- Comprehensive and high level investigation involving data collection and comparison of many variables for a single facility or across facilities with similar function;
- Generally requires a major investment of time, man power and resources;
- Typical outcome:
 - Systems analyses lead to recommendations for changing design criteria to improve facility performance for multiple facilities or types of facilities.
 - Long term facility application of lessons learned to future projects.
 - Improved performance knowledge base for comparison across buildings

Depending on the type of POE used, the building performance elements should include but not be limited to functionality, safety, comfort, security, aesthetics, efficiency, operations and customer satisfaction.

*If a POE will involve investigations of occupant behavior in the built environment and/or taking photographs of occupants, or taking specimens of any kind from an occupant, then informed consent may be required to protect individuals from risks and invasion of privacy. Contact The DHHS Office of Human Research Protection for further information.

The POE process has four steps: Planning, Conducting, Analyzing and Applying.

1. *Planning*: Identifies POE scope, objectives, method of selection, scheduling, budgeting, and personnel allocation, as well as outlining data collection and data analysis.
2. *Conducting*: Initiating on-site data process collection, monitoring and managing data collection procedures.
3. *Analyzing*: Comparison of the findings against the performance, criteria, design intent and program.
4. *Applying*: Report findings and recommendations; identify things that need to be changed and provide specific guidance to that end; review study outcomes.

B. Purpose

An effective POE will result in collection of information from all relevant building occupants and stakeholders including owners, planners, designers, contractors, maintenance personnel, operators and occupants and ensure that the data and analyses resulting from the process is readily available for future application to new and renovated facility projects.

The purpose of NIH's POEs shall be to:

1. Compare the facilities performance against the design and program intent
2. Identify elements of the facility that perform well, meet design intent and criteria or require further study.
3. Provide recommendations to improve performance and develop new or improved design criteria or policies.
4. Apply findings to long term operation of the facility and future projects

POEs provide organizational, occupant and professional benefits.

1. *Organizational*: The NIH Design Policy and Guidelines emphasize flexibility and adaptability in facility design. POE's will help NIH plan for change and growth over time.
2. *Occupant*: Enhance and improve the NIH work environment to effect productivity and quality of life.
3. *Professional*: The application of Lessons learned to future NIH buildings and the development of design guidelines based on performance criteria will provide tools for the design professional.
4. ORF can further use the POE results to:

ORF MANUAL No.: OGD-1527-DPPA-05

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- a. Provide lessons learned to reduce and avoid repetitive design or construction deficiencies.
- b. Explore opportunities to save time and cost and maintain the high quality of the products provided.
- c. Analyze resources required for proper facility maintenance and facility operations.
- d. Assess performance of all major identified facility systems and identify technological, functional, or operational gaps.
- e. Consolidate results into an organizational memory that can be accessed to disseminate findings and conclusions to NIH organizations involved in the facilities delivery process

C. Responsibilities

C.1 Oversight

The Office of Research Facilities (ORF) is responsible for the design, construction, maintenance and operations of NIH facilities.

The ORF Division of Policy and Program Assessment (DPPA) is responsible for conducting POEs for designated NIH facilities.

DPPA shall maintain the WEB site containing POE results and ensure that POE results and lessons learned are communicated to PO's, facility managers, and other stakeholders including NIH Institutes and Centers and the Office of Research Services (ORS).

Project Officers/Program Managers shall direct A/Es to review the POE database as part of their preparation of the POR.

C.2 POE participants:

The DPPA will ensure that the POE provider sets up a Survey Team commensurate with the type of POE to be conducted. The Survey Team shall include stakeholders and representatives from each organization that contributed to the facility under evaluation. The Survey Team should consist at minimum of original Project Team members when possible. There should also be representation for the planning, programming, design, construction, operations, maintenance, security and safety interests of the facility.

ORF MANUAL No.: OGD-1527-DPPA-05

Title: Post Occupancy Evaluation Policy

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The Survey Team shall provide the level of POE as directed by ORF/DPPA and provide a report and recommendations commensurate with the type of POE conducted.

C.3 POE Funding:

POEs may be funded in one of several ways:

C.3.1 The preferred funding mechanism is to use Agency Program Evaluation funds. Information regarding this mechanism can be accessed at:<http://www1.od.nih.gov/osp/de/>, NIH Office of Evaluation.

C.3.2 A central ORF funding source to be used at the discretion of the Director.

C.3.3 Incorporate POE requirements into the A/E Statement of Work so that the POE shall then be provided by the A/E of record.

C.3.4 In the case of an existing contract that is still open, a POE *may be* added to the scope.

C.3.5 For contracts that are already closed, the ORF shall explore other contract mechanisms that may be used to initiate a POE.

D. POE Requirements

D.1 The directive documentation to perform a POE (e.g. A/E SOW, a mod to an existing contract, etc.) shall identify the type and scope of the POE. It will identify at a minimum:

D.1.1 The systems to be evaluated by the POE on a project by project basis

D.1.2 The expected outcome of the POE (define corrective actions; enhance policies and guidelines; etc.)

D.1.3 The POE model as described in Section A Introduction. The POE may be a combination of types including Indicative, Investigative and Diagnostic.

D.1.4 The first POE will be conducted 12-18 months after occupancy.

D.1.5 A follow up POE *may be* conducted no earlier than 10 years.

D.1.6 The POE results will be maintained in a web based database system that will become the organizational memory.

E. Definitions: N/A

F. Relevant Documents/References:

- F.1** Public Health Services (PHS) Facilities Manual (Volume 1) Chapter 3-6
- F.2** National Academy of Sciences, Federal Facilities Council, Technical Report No. 145, Learning From Our Buildings, A State of the Practice Summary of Post-Occupancy Evaluation.
- F.3** Preiser, Wolfgang, F.E., Improving Building Performance, National Council of Architectural Registration **Boards**, August 2003

G. Management Controls:

- G.1** Office Responsible for Review: ORF, Division of Policy and Program Assessment
- G.2** Frequency of Review: As substantive changes are needed or every three (3) years.

H. Contact Information: To obtain copies of this policy or for further information, contact the Office of Research Facilities, Division of Policy and Program Assessment (DPPA), Phone Number (301) 435-2047 or access website: <https://orfnet.od.nih.gov/>.