SECTION 5-1: ACCEPTANCE AND OCCUPANCY

- 5-1-00 Policy
 - 10 Procedures
 - 20 Guidance and Information
 - (Reserved)

5-1-00 POLICY

A. PURPOSE

The purpose of this section is to provide guidance that will facilitate transitioning from the construction phase of a project to beneficial use and operations by the user. Topic areas of particular significance to effective facility activation include inspection and acceptance, warranties, training, documentation in operations and maintenance manuals, and occupancy.

- 1. HHS activities shall normally take beneficial occupancy or use after substantial completion of a facilities project is achieved. Potential risks, impacts and effects shall be carefully considered when deciding whether to occupy or utilize a portion of a construction project prior to substantial completion of the whole project.
- 2. HHS activities shall ensure that an effective warranty management program is in place to enforce active material, equipment, and workmanship warranties for the benefit of the government.

B. DEFINITIONS

For the purpose of Section 5-1 of this manual, the following definitions shall apply.

<u>Latent Defect</u> - Latent defect is defined in the FAR Subpart 2.1, as "a defect that exists at the time of acceptance but cannot be discovered by a reasonable inspection".

<u>Beneficial Occupancy</u> - Beneficial occupancy takes place on the date when part or all of the work involved in a construction project is substantially complete and the Government takes possession of the designated space or spaces to use for the purpose intended. Beneficial occupancy also initiates the warranty period and the environmental mitigation identified in the environmental documents. (The use of a project or portion thereof for the purpose intended.)

<u>Substantial Completion</u> - The time when the contract work is complete to the point that the Government may take over the facility and receive beneficial occupancy for the purpose intended.

C. MATERIAL SAFETY DATA SHEETS (MSDS)

MSDS shall be required from the contractor in a separate binder. A MSDS is designed to provide both workers and emergency personnel with procedures for handling or working with a particular substance. MSDS's include information such as physical data (melting point, boiling point, flash point etc.) toxicity, health effects, first aid, reactivity, storage, disposal, protective equipment, and spill/leak procedures. These are of particular use if a spill or other accident occurs.

5-1-10 PROCEDURES

A. INSPECTION AND ACCEPTANCE

Contractors and Lessors are required to maintain adequate quality control systems and perform such inspections as will ensure that the work performed under the contract conforms to contract requirements. The Contractor and/or Lessor should maintain complete inspection records and make them available to the Government. All work shall be conducted under the general direction of the Contracting Officer and is subject to Government inspection and test at all places and at all reasonable times before acceptance to ensure strict compliance with the terms of the contract. Government inspections and tests are for the sole benefit of the Government and do not relieve the Contractor and/or Lessor of responsibility for providing adequate quality control measures; relieve the Contractor and/or Lessor of responsibility for damage to or loss of the material before acceptance; constitute or imply acceptance; or affect the continuing rights of the Government after acceptance of the completed work under the contract.

OPDIVS are encouraged to have one or more full-time Government inspectors on large and complex construction or design-build projects; however, the presence or absence of a Government inspector does not relieve the Contractor and/or Lessor from any contract requirement, nor is the inspector authorized to change any term or condition of the contract without the Contracting Officer's written authorization.

The Contractor and/or Lessor will, without charge, replace or correct work found by the Government not to conform to contract requirements, unless in the public interest the Government consents to accept the non-conforming work with an appropriate adjustment in contract price. The Contractor and/or Lessor will promptly remove rejected material from the premises.

If, before acceptance of the entire work, the Government decides to examine already completed work by removing it or tearing it out, the Contractor and/or Lessor, on request, shall promptly furnish all necessary facilities, labor, and material. If the work is found to be defective or non-conforming in any material respect due to the fault of the Contractor and/or Lessor or its subcontractors, the Contractor and/or Lessor shall defray the expenses of the examination and of satisfactory reconstruction. However, if the work is found to meet contract requirements, the Contracting Officer shall make an equitable adjustment for the additional services involved in the examination and reconstruction, including, if completion of the work was thereby delayed, an extension of time.

The Government shall accept, as promptly as practicable after completion and inspection, all work required by the contract that the Government determines meets contract requirements or that portion of the work the Contracting Officer determines can be accepted separately. Acceptance by the Contracting Officer shall be final and conclusive except for latent defects, fraud, gross mistakes amounting to fraud, or the Government's rights under any warranty or guarantee.

B. WARRANTIES

Basic Warranties - It is in the best interest of the Government to have the entire construction project warranted. OPDIV Contracting Officers shall insert in full text FAR Clause 52.246-21, Warranty of Construction, into construction contracts as well as design-build contracts. This clause provides for the following: The contractor, whether a construction contractor or a design-build contractor, essentially warrants that work performed under their contract conforms to the contract requirements and is free of any defect in equip-

ment, material, or design furnished, or workmanship performed by the Contractor or any subcontractor or supplier at any tier. The standard warranty period extends usually for one year from the date of final acceptance of the work.

Contractors shall provide warranties in a separate binder with points of contact names, addresses, and all applicable phone and fax numbers.

- 2. Adjustments of Basic Warranty/ Guarantee Period The contractor may request an adjustment in a warranty period based on completion of the work and use of the equipment and/or system by the Government. Systems that are utilized on a seasonal basis must be tested and used through a complete annual load cycle. For example, if the final inspection were held in the fall, the air conditioning system would not be properly tested under full load until the following air conditioning season. The contractually specified warranty period does not apply to latent defects. The timeframes in which remedies for latent defects are possible is usually much longer than the standard one-year warranty.
- 3. Manufacturers', Subcontractors', and Suppliers' Warranties The A/E generally specifies product performance characteristics that result in warranties. In many cases these warranties are industry standards. All warranties express or implied, from subcontractors, manufacturers, or suppliers for work performed and materials furnished are enforceable under the contract. The Contractor is required to obtain all warranties that would be given in normal commercial practice; all warranties are to be executed, in writing, for the benefit of the Government, and all warranties are to be enforced for the benefit of the Government.

The management of the warranty process should be passed to the maintenance staff operating the facility along with COTR responsibilities. This group of individuals identifies the actual problem through troubleshooting processes and determines if it is in fact a warranty issue. Then appropriate action and follow-up can occur as well as a documented history. This staff also works with the Contracting Officer to resolve any items in dispute and provide any necessary technical information to the Contracting Officer for enforcement of the warranty requirement.

C. OCCUPANCY

- 1. <u>Normal Occupancy</u> Generally, the facility is occupied after final inspection and acceptance.
- 2. Beneficial Occupancy The Government has the right to take possession of or use any completed or partially completed part of the work. Before taking possession of or using any work, the Contracting Officer should furnish the Contractor a list of items of work remaining to be performed or corrected on those portions of the work that the Government intends to take possession of or use. However, failure of the Contracting Officer to list any item of work shall not relieve the Contractor of responsibility for complying with the terms of the contract. The Government's possession or use shall not be deemed an acceptance of any work under the contract.

Government Responsibility - When beneficial occupancy is effected prior to full acceptance, a careful inspection of the area to be occupied should precede such occupancy. Since the Government would be responsible for restoration and repair of damage resulting from the beneficial occupancy, records of conditions in both photographic and narrative form at the time of occupancy are essential.

While the Government has such possession or use, the Contractor is relieved of the responsibility for the loss of or damage to the work resulting from the Government's pos-

session or use. If possession or use by the Government prior to substantial completion of the entire project delays the progress of the work or causes additional expense to the Contractor, an equitable adjustment should be made in the contract price, the time of completion, or both, and the contract should be modified in writing accordingly.

3. Occupancy Agreements - The Contracting Officer shall prepare an appropriate letter to the contractor setting forth the extent of the occupancy and its effective date and time. Lists of deficiencies and omissions in the occupied area should be included. In addition, when partial occupancy is required, an agreement with the contractor must be executed which delineates facility service responsibilities (maintenance, utilities, security, etc.).

5-1-20 GUIDANCE AND INFORMATION

OPERATIONS AND MAINTENANCE MANUALS

Operations and Maintenance (O&M) Manuals are essential to the activation and long term care of new HHS facilities. Provisions in the construction or design-build contract should require the development of a consolidated operations and maintenance manual for the entire facility in both hard copy and electronic soft copy. A copy of the manual should be kept and maintained by the OPDIV's facilities management office and the OPDIV's operation and maintenance field office. The manual shall include:

- A copy of all warranties.
- As-built/Record drawings of project
- A list of all training requirements and a roster of trainees.
- All information necessary to optimize operations and maintenance of facility equipment and systems.
- Specific operational protocols for special and highly sophisticated equipment.
- Standard operating procedures and parameters.
- Commissioning results as a baseline for validation and facility performance expectations.

SECTION 5-2: POST-OCCUPANCY EVALUATION SURVEY

- 5-2-00 Policy
 - 10 Procedures
 - 20 Guidance and Information
 - 30 Reporting Requirements

5-2-00 POLICY

A. PURPOSE AND SCOPE

Responsibility for a variety of Facility Surveys is vested in the OPDIVs under policy guidance of this manual. Post Occupancy Evaluation (POE) requires a detailed and systematic assessment of an operational facility. The POE is conducted after occupants have had sufficient time to establish operations and evaluate suitability of the facility to support the program mission. This section explains the rationale for performing POE's, desired outcomes, and the general approach to their accomplishment.

- 1. HHS OPDIVs shall conduct POEs on all leases and GSA assignments over prospectus level and on all federally owned facilities with a total project cost \$10 million or more (Capital Investment Review Board level projects), except staff quarters and utilities projects.
- 2. "Lessons learned" in the process of performing POEs shall be posted electronically in a location accessible to OPDIVs, so that the information may be shared and used for the future improvement of the facilities program.

B. DEFINITIONS

For the purposes of Section 5-2 of this manual, the following definitions shall apply.

<u>Post-Occupancy Evaluation (POE)</u> – Process of inspecting and analyzing recently completed and occupied facilities.

<u>Post-Occupancy Evaluation Report</u> – Report, which delineates the process of inspecting and analyzing, recently completed and occupied facilities and includes the data gathered and the conclusions and recommendations developed as a result of the process.

5-2-10 PROCEDURES

A. POST OCCUPANCY EVALUATIONS

The objectives Post Occupancy Evaluations include:

- 1. To identify poor or inefficient design features or construction deficiencies and take action to avoid those mistakes on future projects.
- 2. To document noteworthy construction features or practices for inclusion in future projects.
- 3. To identify excessive costs incurred during design and construction stages that might have been avoided with better planning.

- 4. To evaluate staffing patterns and adequacy of space.
- 5. To determine whether functional requirements of the program are met at reasonable costs.
- 6. To evaluate the needs of the facility occupants (medical and administrative staffs, patients, and visitors) and the facility performance in response to those needs.
- 7. To stay current with changes in technology, medical equipment, model codes, and federal/state/local requirements.
- 8. To provide evaluation and feedback (lessons learned) to all HHS offices responsible for planning, designing, constructing and operating facilities in order to save future construction and operating costs by contributing to an efficient facilities design and construction program.

If a Program Justification Document and Program of Requirements are required for a project, then the facility is eligible for the POE process.

B. PROJECT SURVEYS

- 1. The OPDIV will plan and schedule the POE's for their facilities.
- 2. The facility should be in operation for at least ten (10) months before a POE is conducted. The survey should not be conducted until the operation has reached a relatively normal/ steady state. In some cases, this will not occur for two or three years. Initially there may be abnormal spikes in patronage. Conversely, there may be areas that are not fully staffed for operation. It is noted that if the POE can be successfully conducted prior to expiration of the construction warranty, it could potentially allow enough time to enforce the standard one-year construction warranty clause if warranted defects are discovered. However, the primary consideration in scheduling is whether the functionality of the facility can be assessed relative to normal operations.
- 3. The survey team consists of occupants or users, professional staff from each design discipline including architectural, civil/structural, mechanical, and electrical. There should also be program-planning professionals to assist in determining suitability of program department space. The design Architect/Engineer (A/E), Medical Program staff, and Agency customer representative for the project should be invited to participate in the site visit to provide background information on the facility design.
- 4. Prior to a site visit, the survey team should prepare an occupant questionnaire to determine what the users thank of the facility, review the project Program of Requirements (POR) and related project construction documents. This will enable the survey team to better determine whether program requirements have been met. It will also save time at the site since the survey team will be familiar with the facility before arriving.
- 5. The survey team shall visit the facility and inspect all exterior and interior elements of the facility and site. The survey team shall note conformance of the facility to the construction documents.
- 6. During the visit, survey team members shall interview the facility managers and the facility occupants to determine their observations about and reactions to the building. Persons interviewed should include the users, facility director, administrative officer, department heads, facility engineering and maintenance staff.

- 7. In conducting the survey, the information to be gathered is not limited to design or construction deficiencies. The survey team shall note successful integration of positive facility features including but not limited to:
 - a. Efficient use of space including optimizing square footage and floorplan.
 - b. Sustainability in terms of
 - (1) Efficiency of operations and maintenance,
 - (2) Durability of finishes,
 - (3) System flexibility, space adaptability,
 - (4) Technologically current and adaptable, and
 - (5) Energy performance.
 - c. Design elements pleasing to occupants and visitors.
 - d. Acoustics, lighting, ventilation, thermal control.
 - e. Effective exterior design strategies.
 - f. Control of Storm water.
- 8. Photographs should be taken during the site visit. These will document the general appearance of the facility and site as well as specific design and construction features.

5-2-20 GUIDANCE AND INFORMATION

Before visiting the site, each survey team should formulate a plan and a project specific checklist for each technical discipline to use as a guideline during the survey. This guideline/template will permit the efficient use of time at the facility and ensure that major areas are not overlooked. The following guidelines are recommended:

- 1. Design Review Note design excesses or deficiencies, omissions or poor design features.
- 2. <u>Supervision</u> Determine whether the A/E, the contractor, and the involved agency enforced/complied with the requirements of the plans and specifications.

3. Design Features

- a. Each technical discipline involved in the review process should evaluate the major systems (for example, Electrical Engineer for emergency power) and its effective performance for the facility.
- b. Discuss the use of alternate materials and/or systems.
- c. Comment on the cost effectiveness of the installed systems.
- d. Address design features contributing to the facility condition.

4. Systems Reliability

- a. Health care and research facilities require a reliable power source and the maintenance of interior environmental conditions. Therefore, essential systems and equipment must be provided with alternate and/or standby power and components. The electrical and the mechanical disciplines should evaluate the reliability of the electric power, heating, air conditioning and other major systems.
- b. Review other systems, their reliability and whether there is necessary redundancy/backup for critical systems.

- 5. <u>Staff and Maintenance Personnel</u> Interview the facility management staff and maintenance staff regarding design and construction features, access to equipment, operations, adequacy of as-built drawings, training and maintenance manuals, and "contractor-furnished" training manuals on major equipment items.
- 6. Equipment and Utility Space Determine the adequacy of equipment space for easy access and housekeeping purposes. Equipment that is not readily accessible is difficult to maintain properly. Verify that corridor space, door openings, and knockout panels are adequate for large equipment service or replacement.
- 7. <u>Codes/Standards</u> Summarize National Fire Protection Association, Life Safety Code, Americans with Disabilities Act, and other national code used as design basis.

5-2-30 REPORTING REQUIREMENTS

DOCUMENTATION AND APPLICATION

- Place the data gathered during the project survey in a Post-Occupancy Evaluation Report, with a separate section for each technical discipline. Describe the facility briefly and document deficiencies or notably good design and construction features, using photographs for descriptive purposes. Lists of suggestions for improved solutions should also be included to correct noted deficiencies. (The development of a matrix space analysis is encouraged to show differences between the POR, design documents, actual construction, and current agency design requirements.)
- 2. Promptly identify potential warranty items or latent defects to the Facility Manager so that timely action can be taken to enforce and benefit from the warranty.
- 3. Furnish copies of the report to the OPDIV planning office and the facility manager. This survey report is for information and use in planning and constructing future health care and research facilities. Make copies of the report available to all HHS OPDIVs, and any office or committee engaged in updating design criteria for use in HHS health care and research facilities construction programs.
- 4. Each OPDIV should develop and make available a method of posting and electronically retrieving the "Lessons Learned" during the POE process. By all OPDIVs this can be invaluable for future planning of facilities because it will make information available on items and procedures to avoid and those features that are desirable.
- 5. Submittal of completed survey reports is not routinely required; however, OFMP, Division of Planning and Construction may request a completed survey report be submitted for information purposes.