



INDIAN HEALTH SERVICE

GUIDE to the HEALTHCARE FACILITIES ENGINEERING PROGRAM



**OFFICE OF ENVIRONMENTAL HEALTH
AND ENGINEERING
Division of Facilities Operations
Division of Engineering Services
Division of Facilities Planning and Construction**

**March
2010**





***On the Cover: Rendering Cheyenne River IHS Health Center, Eagle Butte, SD
(Under Construction at time of publication)
Above: Four Corners Regional Health Center, Red Mesa, AZ***

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Guide to the Healthcare Facilities Engineering Program

About the Guide:

This guide is intended for Chief Executive Officers (CEO), Administrative Officers (AO) and non-engineering personnel in Indian Health Service (IHS) including Service Units, Tribal facilities and Area Offices, as an overview of the IHS Healthcare Facilities Engineering Program as it pertains to IHS owned or operated facilities. The reader is encouraged to contact their Facility Manager for a more in-depth explanation of the various contents.

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Division of Facilities Operations - Rockville (301) 443-5954 <http://www.dfo.ihs.gov>

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Other

Environmental Health Support Center – Albuquerque (505)-248-4262 <http://www.ehsc.ihs.gov>



*Eagle Butte PHS Indian Hospital
Eagle Butte, SD*



*Phoenix Indian Medical Center
Phoenix, AZ*



*Pawnee Health Center
Pawnee, OK*

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1. Introduction

The purpose of this guide is to provide an overview of the Indian Health Service (IHS) Healthcare Facilities Engineering Program at the Service Unit level. The guide does not attempt to address all the complexities of the facilities program, only to give the user a place to find a quick explanation of various aspects of the program.

For the purpose of this guide, the text will deal with facilities management as if it were provided at a full service installation, one that would include inpatient care, outpatient care, laboratory facilities, administration, etc. It is recognized that not all Service Units offer all levels of care. Some things included may not apply to an individual installation. The term "Facility Manager" used in this guide is a generic term. It refers to the person in charge of the facilities program at the installation. There are a variety of names for Facilities Programs at the IHS Area Offices. For this guide, the term Area Facilities Engineering Office will be used.

2. Reference Materials

The IHS Office of Environmental Health and Engineering (OEHE) web site is a source of information and should be used as a starting point for detailed information on the IHS facilities programs.

<http://www.OEHE.ihs.gov/>

A. IHS, OEHE Technical Handbook

The Technical Handbook provides in-depth reference guidelines on a variety of facilities subjects.

<http://www.oehe.ihs.gov/hb/index.cfm>

B. Environmental Compliance Awareness Guide

The purpose of the guide is to provide a basic introduction to the myriad of complex environmental regulations. It is intended to be used by CEO's, AO's and Facility Managers to inform them of their basic responsibilities under each regulation, and provide informational resources to help them achieve compliance with each of these regulations. It states the requirements for compliance and the penalties and consequences for non-compliance. It is posted on the IHS web site at:

http://www.dfo.ihs.gov/com_work/env_docs/IHS_Environmental_Compliance_Awareness_Guide.pdf.

C. Guidance Document for Managing Hazardous Material in IHS Buildings

The purpose of this document is to provide a quick reference on the management of hazardous materials located in IHS buildings (asbestos, lead-based paint (LBP), Polychlorinated Biphenyls (PCBs), Underground Storage Tanks (UST), mercury, etc.) during routine operations, renovations, demolitions, and transfers. The document can be found at:

http://www.dfo.ihs.gov/com_work/env_docs/Guidance_Document_for_Managing_Hazardous_Materials_in_IHS_Buildings.pdf.

D. Real Property Policy

This General Reference Guide for Real Property Policy (published by the General Services Administration (GSA)) consists of a listing, by subject area, of applicable laws, GSA Federal Property Management Regulations (FPMR's) and Executive Orders. The subject areas include: Delegation of Authority; Real Property Acquisition; Facility Management; Real Property Disposal; Design and Construction; Art-in-Architecture; Historic Preservation; Assignment and Utilization of Space; Safety and Environmental Management; Security; and Public Utilities.

3. Healthcare Facilities Management

A. Healthcare Facilities Management Program

The Healthcare Facilities Management Program includes the activities that support operation of health care facilities and allows the Service Unit to accomplish its mission in the delivery of health care. The overall program provides leadership and direction in master planning, facility design, construction, acquisition, leasing, operations and maintenance, space utilization; and management of programs (including, environmental management, historic preservation, occupational health and safety, and energy management) for health care facilities throughout the Indian Health Service.

B. Facility Manager

The ideal Facility Manager is a person with a strong facilities management education and a wealth of practical experience. In today's ever changing world of facilities management, Facility Managers are required to do more than just oversee maintenance. They must also be involved in facility planning, construction, space management, hazardous material handling, safety, infection control, patient safety, patient comfort, security, emergency response, and more. It is easy to overburden a Facility Manager by including them in too many committees and workgroups. Keep in mind, the primary function of a Facility Manager is management and operation of the installation. Participation in committees and workgroups should be managed judiciously. Participation in the Equipment Planning, Space Utilization, Emergency Preparedness, Hazard Surveillance, and Safety Committee are all appropriate and encouraged but may entail workloads that will compromise their primary facility management duties. It is very important to realize the program and what you need the facility manager to do is much more than just fix what's broken. **Appendix A** contains an outline of recommended education and activities for Facility Manager credentialing.

C. Operation and Maintenance (O&M)

The primary function of the facility management program is the day to day operation and maintenance of the facility in support of its function as a safe place to provide access to health services. The use of sound engineering principles, good maintenance and management practices are vital in a facilities management program. The program has a direct impact on every department of an installation. Success takes effort, detail and follow-up; a systematic approach is the key to good management. An organized program makes operations more predictable and results in better control of the facility. Better control, in turn, improves effectiveness, in both cost and overall environmental conditions.

O&M programs are not revenue generators, they are financial costs. However, O&M is the skeleton that supports the capability of the facility to function as a place for delivery of health services. Without an effective plant operations and maintenance program, the facility may fall into disrepair and be adversely impacted. This, in turn, may compromise the ability to deliver health care. For example: The failure of the heating and cooling system could require closing a Healthcare facility if acceptable indoor environment conditions can not be maintained. A well maintained facility reduces operation costs, allowing more funds to be used on improvements.

There are basically two ways O&M functions can be handled at an installation; the use of in-house maintenance personnel or the use of contractors. In most cases it is a combination of both.

(1) In-House Operation and Maintenance

In-house maintenance is used and staffed for daily operation and routine preventive maintenance. A sufficient staff of well-trained employees can handle a majority of day-to-day duties at an installation. However, maintenance personnel should never be expected to perform duties for which they are not trained. Work that requires specialized training should only be performed by qualified or certified personnel. The in-house people are the first line of defense for preventative maintenance and immediate repairs, and should not be used for long term or larger projects that would divert them from their primary responsibilities.

(2) Contracted Operation and Maintenance

Contractors are employed when:

- In-house staff would be taken away from essential day-to-day tasks;
- In-house staff lacks the necessary expertise;
- In-house staff does not have the time to provide the necessary services; or
- It is more cost effective to have a contractor perform the duties.

For example: few installations have in-house personnel trained to perform required inspection and testing of the fire alarm system.

(3) Work Requests / Work Orders

Each facility should have a mechanism in place for the staff to request maintenance work. Computer-based work request systems have become prevalent at IHS facilities. On March 21, 2007, the Director of the Office of Information Technology issued a memorandum that established TMA Systems software as the IHS standard for all computerized maintenance management software. These systems allow staff to request maintenance work from their computer terminal. After approval and prioritization, the request is sent to the appropriate maintenance person in the form of a work order. The computer system not only allows tracking of maintenance requests but aids the Facility Manager in:

- Tracking labor costs;
- Tracking materials cost;
- Preventative and routine work scheduling;
- Developing and updating the Facilities Engineering Deficiency System (FEDS)
- Identifying equipment that may need replacing; and
- In record keeping

The Facility Manager in conjunction with the local authorities has the authority to approve and disapprove work requests. The most common reasons to disapprove a work request are because the requested work would cause a code violation, or the requested work is not fundable within the current budget or staffing level.

(4) Maintenance Equipment

The staff in a facilities management program is responsible for the operation and maintenance of the facilities. As such they need to have access to the proper tools and equipment to perform their duties. The Facility Manager should be given authorization to purchase routine tools, equipment and supplies. The administration should also allow the Facility Manager to purchase specialized equipment necessary for operation and maintenance needed at the installation. A streamlined approval methodology, within the required procurement regulation framework, will benefit everyone.

Safety and security issues are also a concern. Tools and equipment need to be secured whenever they are not in use. The Facility Manager should develop policies and procedures for handling and caring for maintenance tools and equipment. The staff should be trained on the proper use of equipment and be aware that tools cannot be left unattended in a health care environment.

(5) Staff Training

The Facility Manager should develop and implement a staff training plan. Operation and Maintenance related training is needed to meet the need of new technology, accreditation, succession, etc. Training should incorporate Occupational Health and Safety Administration (OSHA) safety training requirements. The OSHA is a great source for worker training, along with the IHS Environmental Health Support Center (EHSC).

D. Utility Management

The Facility Manager is responsible for the installation's utility systems. Operation of these systems in the most economical manner is of utmost importance. These systems provide the power, the water, waste disposal, and medical gas services necessary for safe operation of equipment and other systems.

(1) Utility Equipment

Utility equipment is loosely defined as the operating components of a utility system. In an electrical system, electrical utility equipment would include such items as transformers and switch gear. It could also include the emergency and stand-by generators. In an HVAC system, utility equipment would include the boilers, chillers, air handlers and cooling towers.

Utility equipment is extremely important to various areas of an installation. Utility equipment that serves anesthetizing areas such as the Emergency Department, the Operating Rooms or the Critical Care Unit is vital. The failure of this equipment directly affects the life safety of patients. Therefore, it is imperative that this equipment be inspected, operated and maintained by individuals who are fully trained to do so.

Each installation must categorize utility equipment that is critical. Critical equipment must be inspected, operated and maintained at a higher standard than normal operating equipment. The Facility Manager, in conjunction with the Safety Committee, must prepare a written management plan for all critical equipment.

E. Environmental Stewardship

As defined by the Environmental Protection Agency, environmental stewardship is the responsibility for environmental quality shared by all those whose actions affect the environment. The Facility Manager will be involved in many aspects of environmental stewardship. They are key players in ensuring that IHS operations have a minimal impact on the environment.

(1) Environmental Management Systems (EMS)

As required by Presidential Executive Order, all IHS facilities adopt the environmental management system as a model for improving environmental quality. An EMS is a management practice that allows an organization to manage and improve its environmental program. Implementation reflects accepted quality management principles based on the "Plan, Do, Check, Act," model using a standard process to identify environmental risk, goals for improvement, establish supporting procedures, review

progress, and make adjustments to ensure continual improvement. If a facilities has an EMS or falls under a larger EMS, it is necessary to manage and report the program as required by the IHS Stewardship Plan. International Organization for Standardization (ISO) 14001, "Environmental Management Systems" provides the EMS framework. Executive Order 13423, "Strengthening Federal Environmental, Energy, and Transportation Management" sets the requirements for developing an EMS.

(2) Environmental Compliance and Audits

The Facility Manager will be involved in environmental compliance issues. Regulatory compliance depends upon the type of facility, environmental risks, and in cases the location of the facility. To determine what environmental regulations apply to your institution, see the Environmental Compliance Awareness Guide referenced above in Section 2.

The Facility Management program will utilize the IHS Environmental Audit process to identify gaps in compliance, document the issues, and begin to address and remediate environmental findings. Every installation in the IHS must be evaluated to determine environmental compliance. This includes determining the presence of possibly hazardous materials. Commonly the types of materials that must be identified are Asbestos Containing Materials and Lead-Based Paint. The focal point for completing the evaluations is the Area Facilities Engineering Office. The Service Unit Facility Manager is responsible for managing the hazards.

(3) Environmental Steering Committee

The Environmental Steering Committee oversees the Congressionally earmarked environmental and demolition funds by providing guidance documents, determining priority ranking for actions, and providing technical expertise on environmental issues related to health facilities. Information on the environmental and demolition funding are listed under Section 5, Other Funding and Programs.

For more information about the committee and environmental compliance see the Environmental Steering Committee website at <http://www.dfo.ihs.gov/index.cfm?page=comworkenv>.

(4) Sustainability¹

Recent laws and Executive Orders have been issued that set requirements for sustainable buildings². Although meeting these requirements can not be fully accomplished except during new construction or major renovation; the DHHS policy requires implementation of the Guiding Principles for Federal Leadership in High Performance and Sustainable Buildings to the maximum extent feasible in all improvement, repair and maintenance projects. This includes selection of more efficient replacement equipment (electric motor, low flow fixtures, etc), procurement of materials with recycled content, implementing operation changes such as motion sensors for lighting, HVAC night setbacks, selection of low emitting interior materials, low flow plumbing fixtures and landscaping of native plants to reduce water usage, and building

¹ EO 13423 defines "sustainable" as: means to create and maintain conditions, under which humans and nature can exist in productive harmony, that permit fulfilling the social, economic, and other requirements of present and future generations of Americans.

² Sustainable Building is an outcome of a design which focuses on increasing the efficiency of resource use — energy, water, and materials — while reducing building impacts on human health and the environment during the building's lifecycle, through better siting, design, construction, operation, maintenance, and decommissioning.

commissioning. This coupled with a material recycling program can incrementally improve the sustainability of the installation. Facility Managers must also consider sustainability features for existing building and leased spaces to identify potential projects to improve sustainability. New chapters in the OEHE Technical Manual describe IHS sustainability requirements and processes.

(5) Energy and Water Management

The Facility Manager employs resource management methods to reduce energy and water consumption. Some examples are: metering, using energy efficient lighting; ensuring motors are running in the optimum range; or repairing dripping water faucets. Reduced resource consumption translates to reduced bills and saving revenue. Savings may be utilized to install high-efficiency equipment or administrative controls. Purchasing energy from renewable sources is also encouraged.

The energy-related laws and regulations with which IHS is required to comply include, but are not limited to, the following:

- Energy Independence and Security Act of 2007 (EISA 2007)
- Energy Policy Act of 2005 (EPA 2005)
- Executive Order 13423, Strengthening Federal Environmental, Energy, and Transportation Management (EO 13423)

(6) Hazardous Materials and Wastes

It is important to identify materials that may present a hazard in IHS buildings. Older buildings throughout the IHS must be evaluated to identify potentially hazardous materials. If an audit finds hazardous materials a decision is made to abate, or otherwise mitigate the potentially hazardous materials. It is often cost effective to develop a 'manage-in-place' plan.

Facility managers should always consider ways to reduce the amount of hazardous materials being used in the facility. Replacing hazardous chemicals with less hazardous products should be done whenever possible.

(a) Hazardous Materials

A number of potentially hazardous materials may be found in IHS facilities; however, the potential risk from these hazardous materials can be minimized if they are properly handled, stored, used, disposed and/or managed-in-place. The types of hazardous materials found in buildings and structures may include: Asbestos Containing Material (ACM), Lead-Based paint (LBP), Polychlorinated Biphenyls (PCB), and Chlorofluorocarbons (CFC). There are regulations pertaining to the management and removal of these materials, which the Facility Manager is responsible to understand and manage. More information about hazardous materials can be found in the OEHE publication, "Guidance Document for Managing Hazardous Material in IHS Buildings" which is posted on the IHS website at http://www.dfo.ihs.gov/com_work/env_docs/Guidance_Document_for_Managing_Hazardous_Materials_in_IHS_Buildings.pdf.

Policies and procedures should be implemented for the proper storage, and safe use and disposal of hazardous substances used in the operation and maintenance of a facility. Lubricants, disinfecting agents, and other chemical compounds can be hazardous if not properly stored or used.

(b) Solid Waste

Facilities Managers should evaluate recycling options for fluorescent tubes, batteries, mercury containing products, waste oil, paper, aluminum, glass, and plastics.

The Facility Manager is typically responsible for solid waste disposal. The activity is normally performed through a waste disposal contract. The Service Unit must as a condition of the disposal company's contract require the contractor to dispose of solid waste in a landfill meeting EPA requirements under the in Resource Conservation Recovery Act (RCRA). Just because a company has been hired to dispose of solid waste lawfully does not relieve the Service Unit of the responsibility for proper disposal under the law. The Service Unit should confirm proper disposal.

(c) Medical Waste

The Facility Manager is typically responsible for disposal of medical wastes. The activity is normally performed through a waste disposal contract. Just because a company has been hired to dispose of medical waste does not relieve the Service Unit of the responsibility for proper disposal under the law. Facilities Managers must ensure that the contractor is transporting and disposing of medical waste in accordance with laws and regulations.

Medical waste awaiting transportation must be properly stored including: proper storage container; refrigeration if time between transportation requires; restricted access to storage location; and proper warning signs.

(d) Sewer / Chemical Discharges

A medical facility may be permitted to discharge chemicals into a community sewer system. A discharge permit will specifically state what can and at what concentration is acceptable to discharge into the waste disposal system. The community system that receives liquid waste may require testing and monitoring. If needed, the Facility Manager should be involved with ensuring discharges are within the acceptable limits set by the National Pollutant Discharge Elimination System (NPDES) and the requirements of the local entity. Possible sources at a facility include: Chemicals from pathology labs, health labs, research labs, power plant, dental or radiology. Chemicals used in maintenance activities such as lubricants and pesticides used on grounds must also be monitored by the Facility Manager.

F. Biomedical Management

Biomedical engineers and technicians manage and service the complete spectrum of medical equipment in all IHS health care facilities. The biomedical people at the Service Unit manage device inventories and maintain very rigid compliance with the standards set by The Joint Commission (TJC), or other health care accrediting organizations, and the Safe Medical Devices Act (SDMA). TMA Systems software is the IHS standard for computer-based biomedical software that aids in tracking the inspection and history of repairs on medical equipment is commercially available.

(1) Biomedical Equipment

Equipment used in direct patient care is considered biomedical equipment. Each Service Unit receives funding for the maintenance and replacement of this equipment.

G. Life Safety Management

Life Safety Management includes; the operation, maintenance and testing of building systems that protect people and/or notify them of alarm conditions. It includes operation, maintenance and testing of suppression systems used to fight fires. An important aspect of life safety management in a health care facility is the development and implementation of a Building Maintenance Program (BMP) that systematically checks building safety features. A proper BMP checks fire and smoke barriers, exit corridors, fire, smoke and corridors doors, as well as emergency and egress lighting.

(1) Fire Suppression

It is IHS policy that fire sprinkler protection is desirable in all IHS facilities even if an existing facility is not required to be sprinklered by earlier NFPA 101 code requirements. Criteria for determining sprinkler requirements will be based on the requirements of NFPA 101: Life Safety Code, NFPA 13: Standard for the Installation of Sprinkler Systems, and NFPA 75: Standard for the Protection of Electronic Computer/Data Processing Equipment. Currently all IHS facilities are required to meet the minimum requirements of NFPA 101 as it pertains to sprinkler protection. See the IHS Technical Handbook. Chapter 24-11, Installation of Fire Sprinkler Protection in Indian Health Service Owned Installations, for IHS requirement for existing and new buildings including requirement for new quarters units.

It would not be feasible to install sprinkler systems in all existing buildings at the same time. The Facility Manager should work with the Area Facilities Engineering Office to plan for installation of sprinkler systems throughout the installation as funding becomes available

(2) Devices

Devices such as fire alarms, including audio and visual alarms, smoke detectors and other fire safety devices must be tested routinely. A Facility Manager is responsible for the maintenance of life safety devices throughout the facility. The Facility Manager must be diligent in testing and maintaining the devices. All of these devices, whether in use or not, must be maintained. A life safety device that is not maintained may become inoperative, rendering the life saving feature of the device ineffective in time of an emergency. If it has been determined that a life safety device or marking is not needed, the Facility Manager must have it removed. An example may be a marked door that once served as a fire exit, but now leads to a new warehouse and not to evacuation and safety. In this situation a working device may provide a false sense of security that could become fatal during an emergency.

H. Real Property

Real Property is defined as: Land (acreage), together with exterior site utilities, buildings, structures and fixtures located on the land. Listed below are some examples of Real Property, the list is not all inclusive.

(1) Land

Land at IHS facilities falls into two categories, Government owned or Trust land. The IHS Headquarters Realty Office of the IHS records the acquisition and disposition of the Government owned land and Trust land in the Health Facilities Data System.

Government Owned. This is federally owned (fee) land assigned to the IHS.

Government Trust. This is Indian lands held in trust by the Federal government for the benefit of the Tribe. For reporting purposes trust land is categorized as Stewardship land. Government trust land may also be leased by the Federal government. Trust land leased by the Federal government is located within the boundaries of an Indian Reservation and consideration for the lease is the provision of health care to the American Indian and Alaskan Native population.

(2) Buildings

Buildings include hospitals, clinics, quarters (IHS operated or Contractor operated) warehouses, modular as well as temporary buildings such as trailers and mobile buildings.

(3) Structures

Structures include Utility Systems, Underground Sprinkler Systems, Storage, Fuel Tanks, Electric Street Lighting, Main Sanitary Sewer Collection, Roads and Bridges. Utilities include water and sewer mains, electrical transformers, natural gas equipment and telephone lines.

I. Realty

Most authorities concerning real property management are retained at the Department or IHS Headquarters level. The CEO should contact the Area Realty Management Officer on real property matters such as the appropriate use of real property, leasing activities, easements, revocable licenses, or transfers and disposals. Working through the Area Realty Management Officer and the Facility Manager will help ensure compliance with Federal laws and regulations governing these functions. The lease contracting officers at the Divisions of Engineering Services (Dallas and Seattle) are the only people authorized to enter into a lease on behalf of IHS. The only exception to this is for Village Built Clinics (VBCs) for which Alaska Area executes the leases.

The CEO at an installation is the **Responsible Federal Official** for the property and assets at that installation. As the responsible party, the CEO is required to ensure the real property is managed and maintained appropriately. Typically, the Facility Manager is the CEO's agent for carrying out required activities related to real property.

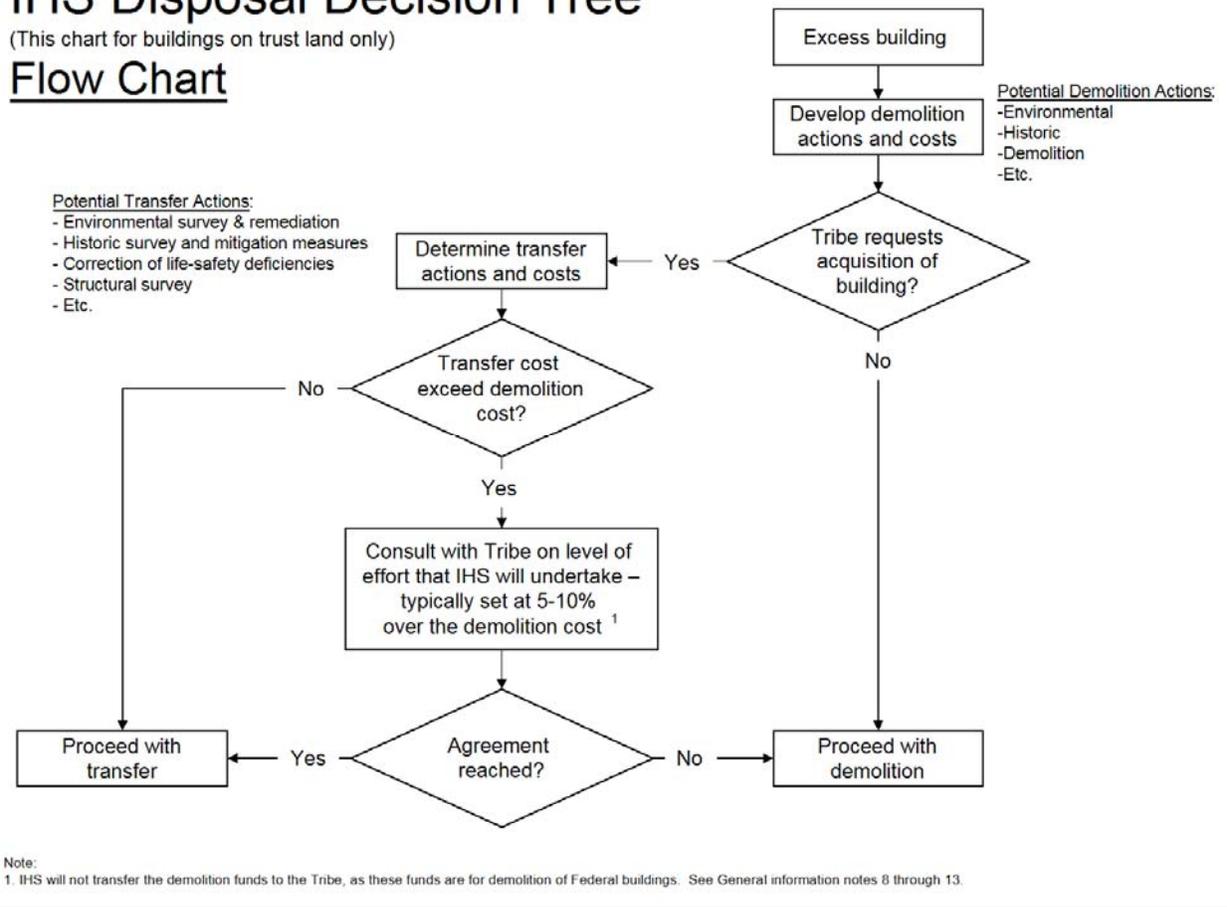
(1) Disposal of Excess Buildings

Disposal of any under-utilized buildings or properties that do not support the mission of the IHS must be initiated at the Service Unit with the aid of the Area Realty Officer. Buildings cannot be added or removed without going through the proper real property channels. When a building on tribal trust land is no longer needed by the IHS, the IHS goes through the decision process shown below to determine the method of disposal.

IHS Disposal Decision Tree

(This chart for buildings on trust land only)

Flow Chart



Demolition of old facilities
Sisseton, SD



IHS Disposal Decision Tree

General Information

1. Applies to buildings located on trust land only.
2. Excess buildings (and associated land) not located on trust land are submitted to GSA for screening and disposal.
3. "Excess" implies that the building is no longer required to support an IHS-funded program.
4. Tribal requests for title to land/buildings still required for IHS-funded programs shall be handled under PL 93-638 authority.
5. Area Offices should develop a list of actions and associated costs to demolish the building (e.g., environmental, historic).
6. Area Offices may submit a PSD to DFO for demolition funding of excess Federal facilities.
7. Consult with the affected Tribe or Tribal Organization (T/TO) and other interested parties (e.g., SHPO).
8. If a T/TO requests title, the Area Office should then determine actions and costs associated with the proposed transfer (e.g., NEPA, environmental, historic, structure, etc.).
9. If the "transfer cost" exceeds the estimated demolition cost, consult with the T/TO on the level of effort that the IHS will undertake (typically limited to 5-10% over the demolition cost); transfer cost items that are supportable include structural analysis, assessments, remediation, etc.
10. Area Offices are responsible to fund the transfer costs with the exception of environmental remediation funds that are managed by the Environmental Steering Committee.
11. IHS must remediate all "hazards" prior to transfer; however all environment concerns are not 'hazards'.
12. IHS will transfer property "as is" with the exception of remediation and transfer cost actions. IHS does not have the authority to expend funds on facilities not supporting IHS needs. IHS will not expend funds for pre-transfer "renovations".
13. IHS can not hand over the demolition, environmental remediation, or M&I funds to a T/TO if they agree to take title to the building. These funds are appropriated for specific purposes (e.g., demolition of Federal buildings).
14. Coordinate with the Area Real Property Management Officer and refer to the OEHE Technical Handbook for the real property documents required for the transfer and demolition of facilities.
15. If an agreement is not reached, then the Area Office should proceed with demolition after notifying the T/TO.
16. Use agreements, rights of entry, permits, etc. should not be used to allow a T/TO to use excess Federal buildings; either transfer title to the T/TO or demolish the building.



J. Facilities Data and Reporting

Knowing the physical condition of the installation can aid in planning for and executing proper management and operation. The mechanism that provides information on the condition of facilities is the Facility Condition Assessment.

(1) Facility Condition Assessments

In order to deliver health care services the condition of the facilities must meet standards of care to ensure safety and efficiency. Facility Condition Assessments provide an evaluation of the installation's buildings and structures. The assessment identifies and documents deficiencies and provides a mechanism to rate and prioritize required work. An in-depth facility condition assessment should be performed every five years. After the in-depth assessment, a yearly review is performed to document deficiencies which have been corrected and to enter any newly identified deficiencies into the system.

(2) Condition Index (CI) and Other FRPC Measures

The oversight and requirements are ever increasing, and it is essential that real properties at the Service Unit level are operated and maintained properly. The goal of every Service Unit should be fully utilized, energy efficient, well-maintained buildings.

The Federal Real Property Council was established to provide guidance for agencies to ensure government controlled real property is operated and financially managed appropriately. Consequentially, the IHS must submit an annual real property report. The reporting includes information on all the IHS-owned and operated real property including all health care, quarters and support facilities. The reporting covers building condition, replacement cost, annual operating cost, as well as utilization index and mission dependency.

A primary reporting criteria is the Condition Index. The Condition Index provides a numerical rating for the physical state of a building. It is a general measure of the constructed asset's condition at a specific point in time.

The calculation for the Condition Index is:

$$CI = [1 - (\text{cost of needed repairs} / \text{Replacement Value})] \times 100$$

It is a DHHS Asset Management Initiative Goal for the IHS to achieve a Condition Index greater than 90 for all IHS properties.

(3) Deferred Maintenance

Deferred maintenance is described as maintenance that was not performed when it was scheduled to be, and which, is therefore, delayed to a future period. The IHS tracks deferred maintenance in the Healthcare Facilities Data System (HFDS) under the Facilities Engineering Deficiency System (FEDS) and a category called the Backlog of Essential Maintenance Alteration and Repair (BEMAR).

- BEMAR is defined as a category of maintenance and repair type deficiencies that have repeatedly been deferred because of a lack of staffing or funds to implement corrective measures. This category excludes deficiencies resulting from lack of program space or proposed improvements to enhance the efficient operation of the facility.

(4) Reporting: Healthcare Facilities Data System (HFDS)

To manage and report on the many Real Property Asset Management requirements, the IHS has developed the HFDS. At the facility manager level, the review and update of the FEDS information yearly is the most critical data. This data is used to identify deficiencies that need to be corrected and if the information is not accurate, funding may not be identified to correct critical deficiencies. The updating process involves working closely with Area Office Engineering personnel to ensure the information in the database is accurate.

(5) Facilities Engineering Deficiency System (FEDS)

The purpose of the FEDS database is to manage facilities deficiencies. The database is maintained by each IHS Area Office for each of their installations. Maintenance funding historically has not been sufficient to assure all identified maintenance and repairs are completed as needed. Funding levels have remained level or increased minimally while building space eligible for funds has increased. Inadequate funding has resulted in the reduction and/or delay in maintaining real property, causing the deterioration of property values and increasing the need and cost of future repairs.

The FEDS database can sort items by categories and provide a description of the item, required corrective action, estimated cost to correct, and other relevant data. The FEDS provides Facility Managers with a concise list of specific items to restore, repair, maintain, and improve the real property. The database is used by the Area Office and Headquarters to determine priorities and aggregate cost of corrective actions versus replacement of any particular installation.

At Headquarters, the FEDS information is used in a variety of other ways. The two primary functions are: reporting on asset management to the Department of Health and Human Services, and providing support information in the IHS budget request. A FEDS table is included in each IHS budget submission.

Types of deficiencies that involve life safety or that are potentially damaging to property are given higher priority ratings than other types of needs. Typical FEDS deficiency items include: deterioration or damage to exterior and interior walls and floors, roof systems, Heating, Ventilation and Air Conditioning (HVAC), electrical, plumbing, etc.

(6) Facilities Engineering Program Plan (FEPP)

The FEPP is a document that enables the IHS Service Units and Area facilities offices to assess facility needs and allocate resources efficiently. A FEPP documents the facilities program workloads for the upcoming fiscal year and reports on the workload accomplishments of the previous fiscal year. The FEPP is based on a local strategic process which assesses future needs in relation to a planning methodology, past experience, and available funding. Each Service Unit and/or Tribally-owned and operated health care facility must complete and submit a FEPP annually to the Area Facilities Manager at the Area Office. Each Area Facilities Director consolidates the individual Service Unit FEPP's into an Area FEPP. Much of the information required for this plan can be derived from the FEDS database.

A FEPP is composed of two separate submissions

- Phase I consists of:
 - a description of existing facilities at the installation;
 - a copy of the minutes of the Service Unit Facilities Board Meeting;
 - a calculation of the M&I funds the installation is entitled to; and
 - Work Plan.

- Phase II consists of:
 - A Status of Accreditation Survey;
 - Recommendations;
 - Status of Program Review Recommendations;
 - Utilization of Funds; and
 - Management Control.

Facility Managers should prepare a FEPP if the facilities program is to be managed in a comprehensive responsible way. However, the submission of a FEPP to the Area Facilities Engineering Office varies between facilities that are Government-owned and those that are Tribally-owned.

For example, the Albuquerque Area manages a consolidated program. Facility Managers submit documentation to the Area office. The Area Office, in turn, presents the information to the Service Unit administration.

Information provided in the FEPP also assists the IHS in developing and reporting to the Federal Real Property Council as discussed in section 3.H.2 above.

K. Area Visits

The Headquarters facilities program conducts visits of the Area facilities programs on a 3 to 4 year cycle. The intent of the Area Visits is to replace the previous 'Area Consults' in a way to provide more substance to both the Area and Headquarters and have a more direct impact on the program. The Visits provide substantive discussions related to the health care facilities program between the Area, including facilities and non-facilities staff, and the Team, Headquarters, and the Area Peers. The overall idea is for all involved in the process to increase their mutual understanding of the health care facilities program and to promote consistency in program administration: to help the Area and facilities staff to understand HQ issues, get assistance, ask questions, etc.; help Headquarters to understand local issues and to represent the program nationally, answer questions, provide assistance, take back issues, etc.; and, the Area Peers to understand how others operate their programs and provide information on how they manage their programs that may be of assistance to the Area being visited.

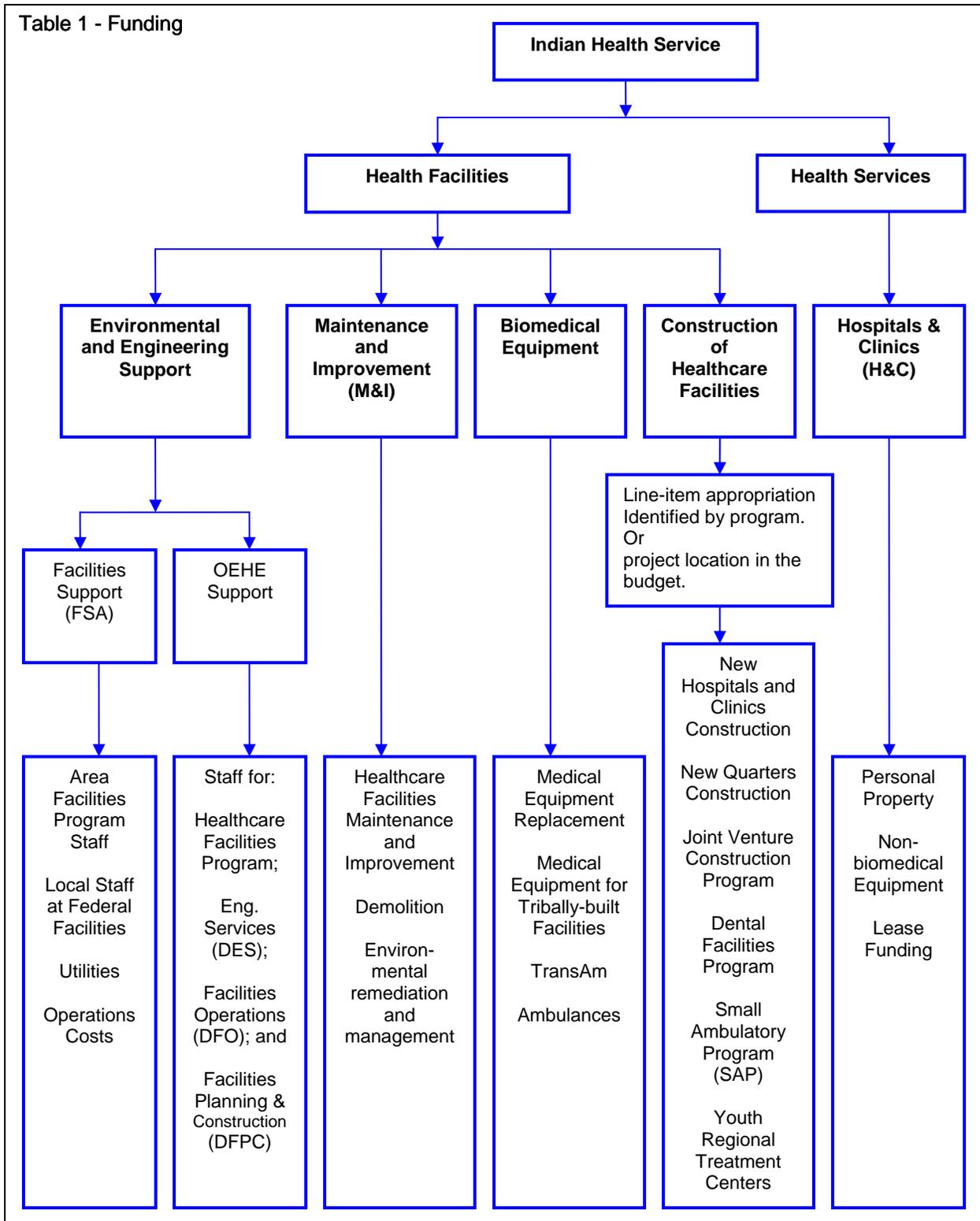


Annette Island Health Center, Metlakatla, AK

4. Funding

Funding for the Indian Health Service comes through the Interior, Environment, and Related Agencies Appropriations. Health Facilities Management related funding for Federally-owned or IHS-operated or IHS-supported facilities are distributed through the Indian Health Facilities and Indian Health Services appropriations as shown below:

Table 1 - Funding



The HEALTHCARE FACILITIES ENGINEERING PROGRAM receives funding for operating and maintaining an installation. There are restrictions on the use of the funds that are received. Maintenance and Improvement funds and Facilities Support Account funds **must** be used for their intended purpose and may not be reprogrammed. Congressional line-item appropriated funds shall only be used for the

purpose outlined in the budget. Refer to the Technical Handbook, 70-3 for a more detailed explanation of funding and restrictions. This handbook chapter is posted on the IHS website at <http://www.oehe.ihs.gov/hb/pdf/07003.pdf>.

A. Maintenance & Improvement (M&I)

Maintenance and Improvement funding is appropriated by Congress and allocated by IHS Headquarters to the Area Office. The Area Office subsequently distributes the funds to the Service Units. Each Area has its own methodology for disbursing funds to the Service Units.

(1) Distribution Methodology

Maintenance and improvement funds are calculated at Headquarters and distributed to each Area Office using a modified version of a formula developed at the University of Oklahoma, generally referred to as the "Oklahoma Formula." The formula is based on a locality index, the unit replacement cost, the size of the building, the type of building, and the intensity of use.

(2) Funding Uses

Maintenance and Improvement funds are to be used to provide routine maintenance activities at an installation. They can **only** be used for these activities. Funds can be used for maintenance and repair of real property including:

- Service contracts, bench stock, repair and maintenance supplies and materials, and expendable tools;
- Preventive maintenance on the structures and the real property equipment systems;
- Accomplishing needed improvements to existing space so the facility will be better suited to deliver health care services;
- Training (including travel and tuition) of maintenance personnel in topics that are directly related to the performance of duties in maintenance and repair of real property;
- Improvement projects which expand real property building systems, e.g. electrical, plumbing, fire protection;
- Pest control required for structural protection of a facility (i.e., termite control); and
- Maintenance and repair of quarters. Note: M&I funds may be used for maintenance and repair of quarters only after all Quarters Returns funds have been expended.

Use of M&I funds for program improvements to the structure, or for clinical program improvements are limited to 5% of the amount earmarked for construction projects.

(3) Funding Restrictions

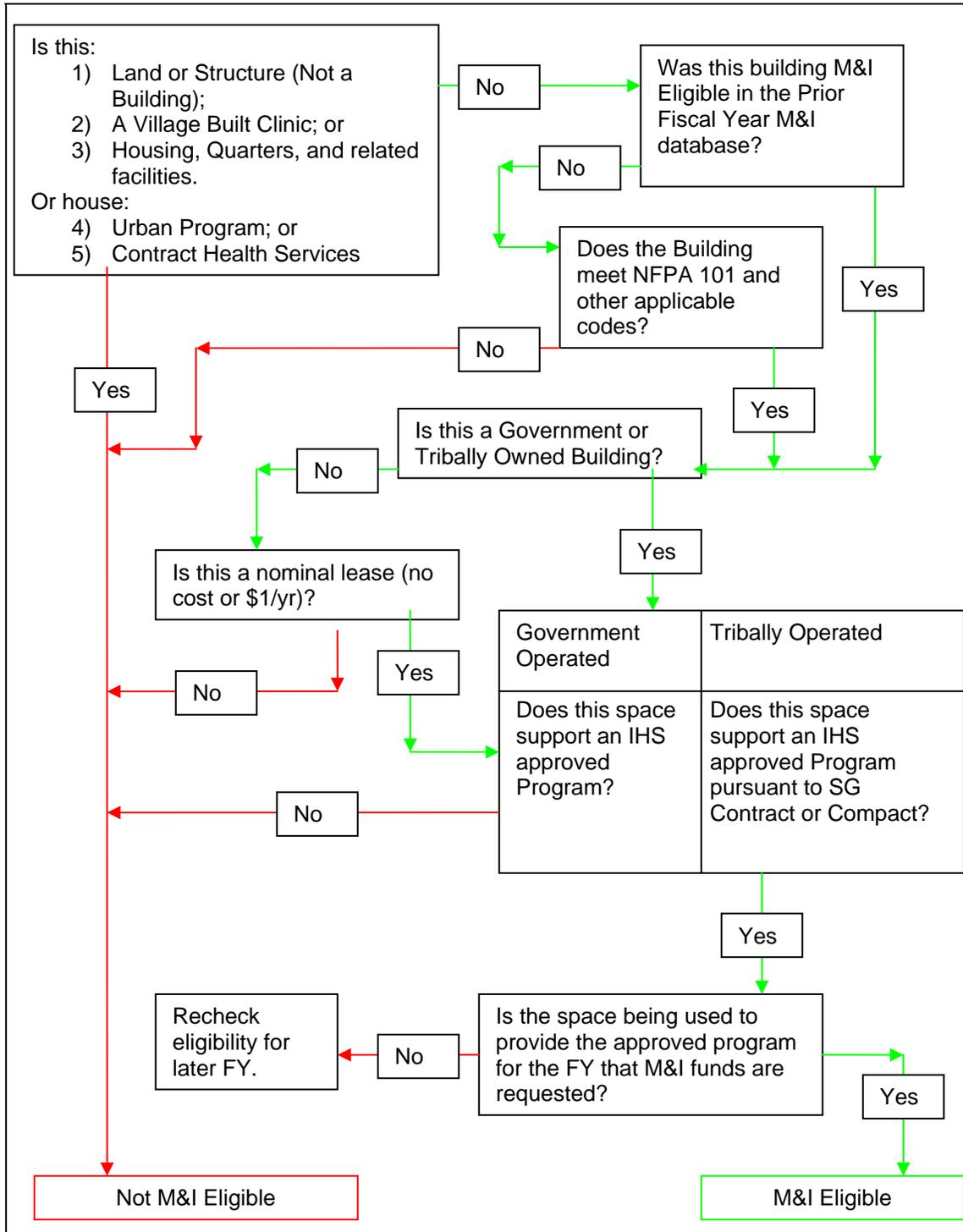
M&I funds **may not** be used for:

- Salaries of permanent and temporary staffing;
- Operational staffing activities of quarters;
- Maintenance and repair of personal property equipment. Note: maintenance and repair of personal equipment utilized by facility maintenance staff, (repair of a table saw) is an allowable expense. The funding cannot be used to maintain and repair the personal property of another department (repair of office furniture in the administration office);
- Rent for leased space; or
- Maintenance and repair of leased facilities (unless, IHS is responsible for the maintenance, under the terms of the lease agreement).

(4) M&I Eligibility

The flow chart that follows provides general M&I funding eligibility requirements.

M&I Eligibility Flow Chart



NOTE: This flow chart covers general eligibility criteria. Unique and specific situations may affect eligibility. Eligibility may not translate to funding if maximum supportable space is exceeded.

B. Facilities Support Account (FSA)

The Facilities Support Account funds the expenses for all Area, and Service Unit facility personnel who manage and implement the IHS health care facilities maintenance and improvement program; the health care facilities new and replacement construction program; the biomedical equipment maintenance and repair program; and, in many cases, the real property and health facilities planning program. FSA funds support personnel who operate the physical plant at IHS-owned health care facilities, and, as outlined below, certain non-personnel related operating costs:

(1) Funding Uses

FSA funds may be used for:

- Utilities;
- Waste disposal: solid, hazardous and medical;
- To keep existing personal property equipment, both clinical and non-clinical, in good repair;
- To perform preventive maintenance on personal property equipment, clinical and non-clinical;
- To perform maintenance and repair, including purchase of parts, supplies, materials, and service contracts, for clinical and some non-clinical personal property. For example: dishwashers, bedpan washers, sterilizers, etc.;
- To train biomedical and facilities personnel, including travel and tuition, in topics directly related to the maintenance and repair of the personal property;
- Supplies and materials related to the “operational” activities such as the costs of chemicals, fuels and lubricants;
- Pest control not required for structural protection of facilities; and
- Grounds keeping: mowing, trimming, fertilizing, snow removal, etc.

(2) Funding Restrictions

FSA funds **may not** be used for:

- Computer and Information Technology support;
- Telephone equipment;
- Construction or adding space; or
- Purchase of personal property except to replace personal property in the facilities management department (purchase small tools). FSA funds cannot be used to purchase personal property for another department (e.g., purchase a blender for the kitchen).

Note: Computers and telephone equipment are funded through the Hospitals & Clinics (H&C) activity (except those directly supporting facilities staff).

C. Medicare / Medicaid (M/M)

Appropriation language permits the IHS to utilize M/M reimbursements to perform repairs to correct deficiencies listed by Medicare/Medicaid inspections and to comply with accreditation requirements. M/M funds may be utilized for new buildings or major renovation projects within certain limitations. Please refer to the IHS Technical Handbook Chapter 26-5, Medicaid and Medicare Funded Projects, for specific limitations on the use of M/M funds for construction. This handbook chapter is posted on the IHS website at <http://www.oehe.ihs.gov/hb/pdf/02605.pdf>.

D. Third Party Billing

There are fewer restrictions on the use of reimbursements collected by the Service Unit from insurance companies than any other type of funding; these funds can be used for construction, maintenance, equipment, etc. It is often advantageous to combine Third Party Billing funds with other funding sources to achieve a desired outcome.

Projects funded with Third Party Billing funds remain subject to the approval process as outlined in the other sections of this text. For example a project estimated to cost over one million dollars must be approved at Headquarters, regardless of the funding source.

E. Clinical Equipment

Many health care services delivered by IHS require special medical equipment that must be acquired, installed, tested and calibrated, as well as maintained. Not only must each health care facility be equipped to meet its mission, but IHS continues to explore innovative methods, requiring new electronic technologies, to provide health care in rural settings. IHS acquires medical equipment for IHS and Tribal health care facilities either as a part of construction of new facilities or with funds appropriated specifically to purchase equipment. Equipment funds must be used to purchase equipment for the facility for which they are appropriated.



Some of the funding is used specifically to purchase equipment for new and replacement clinics that are constructed by Tribes or Tribal Organizations using non-IHS funding sources.



(1) Distributions

Funds are distributed from Headquarters to the Area. The Area in turn distributes funds to the Service Units.

(2) Funding Uses

Equipment funds may be used to:

- Replace aging or outdated clinical equipment;
- Update technology that provides safe health care; and
- Replace medical equipment and to maintain accepted standards.

F. Quarters Return (QR)

All rents and charges collected for quarters shall be deposited and remain available for maintenance and operations of quarters. It has been an IHS policy that these funds can only be used for:

- Maintenance and repair of quarters;
- Acquisition of replacement quarters;
- Alteration to quarters;
- Quarters appliances, furnishings, etc.;
- Training, including travel and tuition, for personnel that is directly related to the quarters program;
- Overhead directly associated with the quarters program; and
- Staffing to manage and maintain quarters.

If a quarters unit is not being utilized as a quarters (e.g., a quarters unit has been converted into an administration office), QR funds **may not** be used for the maintenance and repair of this unit. Converting a quarters unit into a different use requires documentation from the Service Unit justifying the change in use and concurrence from the Area Director. Because this change in use affects how maintenance funds are allocated, it must be approved by IHS Headquarters. Working closely with the Area Realty Officer will make the process successful.

G. Health Services Appropriation Carryover Funds

Hospital and Clinic (H&C) funds must be obligated during the fiscal year it is appropriated or it will be withdrawn. However, Tribal facilities under P.L. 93-638 contracts can carry over H&C funds, in which case funding can continue to be utilized until it is all expensed.

H. Allowable Use of Funds, General Guidance

The table on the following page is intended to provide general guidance on funds use. Specific projects and situations must be verified on an individual project basis for authorities, approvals, etc. Combining of funds is allowed so long as the appropriate funds type is used for the appropriate work. Area Facility Engineers and Area Associate Directors in the Office of Environmental Health and Engineering can provide assistance and guidance on the allowable use of funds. Approval authorities are provided in Table 3 under section 6, New Construction / Renovation.



Winnebago IHS Hospital, Winnebago, NE

Table 2 - Allowable Use of Funds

Funds Used For	Maintenance & Improvement (M&I)	Third Party M/M ¹	Third Party non-M/M ¹	Environmental Remediation	Quarters Return	Dental Facilities ²	Tribal funding at IHS facilities	HSC ³	Facilities Support Account
Repair and renovation of existing space	Yes	Yes	Yes	No	Quarters only	No	Yes	Yes	No
Additional space at existing facility	Incidental to other work only	Yes	Yes	No	No	No	Yes	No	No
Repair by Replacement	Yes	No	No	No	Quarters only	No	No	No	No
Additional dental space at existing facility	No	Yes	Yes	No	No	Yes	Yes	No	No
New facility at location if there is no existing facility	No	No	Yes	No	No	No	No	No	No
New dental facility at location if there is no existing facility	No	No	Yes	No	No	Yes	No	No	No
Repair and renovation of existing quarters	Yes ⁴	Yes	Yes	No	Yes	No	Yes	No	No
New quarters at existing facility	No	Yes	Yes	No	No	No	Yes	No	No
New quarters at location of no existing IHS facility	No	No	Yes	No	No	No	No	No	No
Environmental Assessments/ Remediation/ Compliance	Yes	Yes	Yes	Yes	Quarters only	No	Yes	No	No
Renovate modular units	Yes	Yes	Yes	No	No	No	Yes	Yes	No
Purchase and install modular units at location of existing facility	No	Yes	Yes	No	No	No	Yes	Yes	No
Salaries/benefits of health care facilities program staff, utilities, consumable facility maintenance supplies	PSC ⁵ and supplies	Yes	Yes	No	Quarters only	No	No	No	Yes

¹ M/M – Medicare/Medicaid.

² Dental Facilities Program – Construction funds for new or replacement dental units.

³ HSC – Health Services appropriation Carryover.

⁴ Only after the expenditure of all the Quarters Return funds.

⁵ PSC – Personal Services Contracts for M&I projects.

5. Other Funding and Programs

There are other funding sources available to the Service Units. Some of these are:

A. Small Ambulatory Program (SAP)

Federally recognized Indian tribes that operate non-IHS outpatient facilities under P.L. 93-638 contracts are eligible to apply for funds periodically made available by Congress to construct or renovate small ambulatory outpatient facilities. Funding availability is dependent on Congressional appropriations. Restrictions apply, including but not limited to:

- Adequate financial support will be available for services offered. The program does not fund staff;
- The facility serves at least 500 eligible American Indian or Alaskan Native people annually; and
- The facility provides care for a service area with a population of at least 2,000 eligible persons.

Peter Christensen
Health Center
Lac Du Flambeau, WI



B. Dental Facilities Program

The IHS tries to replace two to three modular dental units each year. The criteria to allocate funds for this program are to evaluate current facilities with regard to age, condition, and projected workload. Funding availability is dependent on Congressional appropriations. Historically, the Congress has appropriated some funds for this program each year. Contact the Area Office for more details.

C. Medical Equipment

Congress appropriates funds to modernize or replace existing equipment or provide newer equipment in existing facilities programs. Funding amounts are based on workload and facility size using a standard formula.

(1) TransAm

As part of project TransAm, the IHS sets aside some funds to procure, transport, and store excess Department of Defense (DoD) and other Federal Agencies medical equipment that can be provided to IHS facilities and tribes that need it. Project TransAm works in partnership with the Air Force Reserve Innovative Readiness Training Program. To obtain this equipment, IHS need only acquire it through a DoD/GSA reutilization

process (at no or minimal cost) and pay for its transportation and storage. After obtaining the equipment, the IHS inventories it and makes lists available only to Tribes and IHS programs. Each Area develops a request for equipment based on the needs of Tribes and Service Units. Equipment can be selected on a first-come, first-served basis through the TransAm website <http://www.ihs.gov/NonMedicalPrograms/TRANSAM/>. Coordination with respective Area Property Managers is required to meet accountability standards of government property. The Nashville Area Office coordinates the TransAm program.

Pursuing the acquisition of medical equipment through the TransAm program is an excellent way to obtain some much needed equipment. However, researching the type and condition of the equipment is vital. The approach of “We’ll take anything we can get.” often results in unnecessary added work at the Service Unit. Acquiring equipment that does match the services provided, or is incompatible with an installation’s facilities may burden the Service Unit with trying to dispose of the property at a later date. Other considerations are the cost to remove the equipment from its existing location, maintenance and repair contracts, operator qualifications and training. There is no such thing as free equipment. Working closely with biomedical personnel, the Facility Manager and the Area Office Clinical Engineering staff will make the process successful.

(2) Ambulances

Annually, the Indian Health Service allocates funding for ambulances, which is used to subsidize the General Services Administration (GSA) rental rates for Tribal EMS programs. As a result the monthly operating costs for ambulances obtained through this program are approximately half the cost as the regular GSA rate. Ambulances are provided on a priority basis based upon mileage and maintenance histories as key factors in determining greatest replacement need.

The IHS ambulance program is managed by IHS Emergency Services. Contact information for IHS Emergency Services is posted on the IHS website at <http://www.ihs.gov/AdminMngrResources/EPEMS/index.cfm?module=staff>.

D. Joint Venture Construction Program (JVCP)

Legislation under P.L. 94-437, Section 818(e) of the Indian Health Care Improvement Act authorizes the IHS Joint Venture Construction Program (JVCP). The law allows establishing projects where American Indian and Alaska Natives tribes can acquire a tribally owned health care facility, in exchange for the IHS providing the initial equipment, then operating and maintaining the health care facility for 20 years. Funding availability is dependent on Congressional appropriations. Contact the Area Office for more details.

The table below lists the projects that have been selected for the JVCP

<u>Joint Venture</u>
Jicarilla (Dulce, NM)
Choctaw Nation (Idabel, OK)
Muscogee Creek (Coweta, OK)
Tohono O’odham Nation (San Simon, AZ)
Cherokee Nation (Muskogee, OK)
Lake County, CA
Chickasaw Nation (Ada, OK)
Absentee Shawnee (Little Axe, OK)
Santee Sioux (Santee, NE)



Westside Health Center, San Simon, AZ

E. Environmental Funds

Environmental funds are administered at the Headquarters level by the Environmental Steering Committee. Funds are kept in a National Pool. Project Summary Documents are reviewed using criteria established by the committee. These funds are available to an Area Office or Tribe operating an IHS funded programs for:

- Identification of hazardous materials in buildings;
- Abatement of the hazardous materials; or
- Preparation of a Manage-in-place Plan for hazardous materials
- Environmental Compliance and Audits

Facility Managers may submit a request for environmental remediation funds through the HQ Division of Facilities Operations.

F. Demolition Funds

Demolition activities are normally associated with the replacement of a building or facility. If demolition is tied to a replacement project, this must be stated in the replacement facility Program Justification Document (PJD) and/or in the Project Summary Document (PSD) with an estimate for the cost of demolition. This is to ensure that funds will be included in the project funding request. The Facility Manager will work with the Area Facilities Engineering and Area Planning Office in the development of the planning documents. The Area Realty Officer needs to be involved with the preparation of a Report of Survey for demolition, which should be included with the PSD or PJD.

Funds to demolish unsafe or unused buildings that are listed in the Real Property Inventory (RPI), that are not directly tied to a replacement project may be requested through the Area Office. The funds are kept in a National Pool and distributed using the criteria established by the Environmental Steering Committee.

There are many laws and regulations governing the demolition of buildings such as historic preservation and environmental compliance. The Facility Manager must work closely with the Area Realty Officer and the Area Facilities Engineering Office to ensure compliance.

G. Repair by Replacement (R/R)

While not a funding source, the Repair by Replacement program is a helpful mechanism to upgrade facilities. When the cost to repair a building exceeds 75 percent of the cost to replace it, it may be eligible for Repair by Replacement methodology. The intent of the program is to replace smaller, high maintenance, high energy consuming buildings with more durable and energy efficient buildings. This program can also be used for quarters replacement using quarters return funds. There is no separate funding source for R/R construction. Refer to the Technical Handbook for details.

H. Gifts of Real Property

The IHS is not authorized to accept gifts of real property. The authority to accept gifts of real property rests with DHHS. The gifts must be unconditional and meet the following requirements:

1. The space is required to support IHS-approved health care services;
2. There is no adequate existing IHS or tribal facility and no facility currently being constructed or designed nearby that can house these services;
3. The proposed space complies with IHS planning standards and guidelines set forth in the Health Systems Planning (HSP) process and other guidelines and policies;

4. Acceptance of the gift does not obligate the IHS to provide additional staff or services;
5. Title to the real property is debt free and the deed contains no restrictive covenants; and
6. If the proposed gift of real property consists of land and/or existing buildings, then the properties must be assessed using formal investigatory criteria, and no hazardous substances and no petroleum products or their derivatives were known to have been released or disposed of or stored for one year or more on the property.

I. Grants

A Service Unit may seek grants to develop health care programs. Funds received from such grants are subject to the conditions of the grant.

Most grants have requirements for participation and sometimes these could include expenditure of resources in addition to the funds available under the grant. Service Units should be cautious to explore the hidden costs associated with some grants. For example: A Service Unit could get a grant to develop a health care program. The grant allows the purchase of a modular building; however, if the grant does not specifically allow the Service Unit to use grant funds for utility costs, operation and maintenance costs or housekeeping costs, then the Service Unit must provide those services and bear the cost of them. Additionally, the added program space may not be eligible to receive M&I or FSA funding that might help offset this increase to the Service Unit. Consulting the Area Office and the Area Realty Officer on these matters is essential prior to pursuing this option.

Diabetes grants are often awarded to Service Units to develop a program. Diabetes grants do not allow the purchase of real property. Modular buildings purchased through the Diabetes program must be purchased as equipment to comply with the conditions of the grant. However, to meet applicable laws and regulations the IHS must track such buildings as real property if they are located on IHS owned or leased land. Contact the Area Realty Officer for assistance.

6. New Construction / Renovation

New construction funds are independent of other funding and are appropriated as identified in an approved Program Justification Document (PJD) or Program Justification Document, Quarters (PJDQ). New Construction funds are administered through the Division of Facilities Planning and Construction at IHS Headquarters, with day-to-day management of these projects by the Division of Engineering Services offices in Dallas and Seattle.

The approval requirements for new construction and renovation projects are often confusing. The table below is a very basic outline of the approval authority for construction projects. Contact the Facility Manager or Area Facilities Engineering Office for a more detailed description of the approval authorities for your specific case.

Pinon Health Center
Pinon, AZ



Table 3: IHS Health Care Facilities Project Approval Authorities

This table is to provide general guidance on project approval processes. Specific projects and situation must be verified on an individual project basis. Area and Headquarters OEHE staff can provide assistance and guidance. Applicable to Federally owned facilities only.

Project Budget	\$ 0	\$ 25k	\$ 1 mil	\$ 2 mil	\$ 5 mil	\$10 mil and greater
	∨	∨	∨	∨	∨	∨
Document Required	Local	PSD or for Quarters a PJDQ	IHS: POR + PJD or for Quarters a PJDQ / DHHS: FPAA / Congress: letter for M&M			

Type of Work - Project approval authorities and requirements based on the type of work.

Construction**	Local	Area	HQ & DHHS		DHHS CIRB
Improvement	Local	Area	HQ	DHHS	DHHS CIRB
Repair	Local	Area	HQ	DHHS	DHHS CIRB
Maintenance	Local	Area	HQ		
Repair by Replacement	Local	Area	HQ	DHHS	DHHS CIRB
Quarters Construction	HQ		HQ & DHHS		DHHS CIRB

Type of Funds - Project approval authorities and requirements based on the specific funding type.

M & M	Local	Area	HQ & DHHS & Congress		
Gifts of Real Property	DHHS				
Gifts of Cash	Area	HQ			
Health Care Construction Program Funds: JV/Dental/Hosp./ Outpatient/SAP/ Quarters/etc.	HQ	HQ & DHHS			DHHS CIRB

- The above approval authorities and requirements are of two types, those that are based on the type of funds being used and those independent of the funds that are based on the type of the work. In some cases approvals may be needed because of funds type and cost of the project, i.e. an M&M repair projects at \$1 million will need congressional approval due to type of funds and IHS HQ and DHHS approval due to costs.

- The different types of work can be done by many funds types, i.e. maintenance and repair by M&I, M&M, gifts of cash, LNF, etc.

- Other appropriate documentation, e.g. environmental documentation, and processes, acquisition planning, may be required and recommended and are not addressed here.

- Approval requests to higher organizational levels follow organizational chain for lower level approvals first.

** Large construction projects are not typically funded with M&I with the exception of Repair by Replacement

PSD: Project Summary Document / PJD: Program Justification Document / PJDQ: PJD for Quarters / FPAA: Facilities Project Approval Agreement / POR: Program of Requirements / CIRB: Capital Investment Review Board

The common requirements for major new construction or renovation projects are:

- A Program Justification Document (including the health facility and staff quarters, if applicable) must be submitted for review and approval at the Division of Facilities Planning and Construction, Headquarters;
- A Program of Requirements must be prepared and submitted for review and approval at the Division of Facilities Planning and Construction, Headquarters;
- Verification that funds are available for the construction project; and
- Confirmation of applicability with the Area Master Plan from the Area's planning team.
- All new construction projects must go through Pre-Project Planning to increase the probability of a successful project.
- The preparation of a Project Definition Rating Index (PDRI) is required on all new construction projects.
- Sustainability and Energy Efficiency Requirements

Typically, these activities are performed and coordinated at the Area Office by the Facilities Planning Office in consultation with the Service Unit and the Tribe(s) served at the facility. The Area Office interfaces with DES for contracting and project management of Congressional line-item appropriated facilities.

Construction projects of more than \$25,000, but less than \$1,000,000 at an IHS-owned facility or a Tribally-owned, IHS-operated facility, must meet the following requirements:

- A Project Summary Document must be submitted for review and approval by the Area Director;
- No design or construction work is to be performed until written approval is received; and
- An information copy of the approved document must be sent to HQ, Division of Facilities Planning and Construction.

Construction projects less than \$25,000 are considered "local projects" and generally do not require the approval of the Area Director. These projects are handled at the Service Unit level. Service Units are strongly encouraged to coordinate construction plans with the Area Office. Area Office staff add a level of expertise on design and construction issues that may not be available at the Service Unit level. A good working relationship between the Facility Manager and the Area Engineering Office staff is encouraged. Funding for all projects, regardless of cost, must comply with appropriations (See Table 2)

A. Facilities Project Approval Agreement (FPAA)

The Department of Health and Human Services, Office for Facilities Management and Policy has implemented the Facility Project Approval Agreement (FPAA). The IHS is required to submit budget, scope and schedule of projects for Federally-owned real property assets above the IHS approval limits. The FPAA requires several supplemental documents and analysis including: Life Cycle Cost Analysis, PDRI, and Project Assessment Tool (PAT) analysis.

B. Pre-Project Planning

The DHHS has adopted Pre-Project Planning as a best practice. Pre-project planning is defined as a process of developing sufficient strategic information with which the IHS can address risk and decide to commit resources to maximize the chance of a successful project.

C. Federal Real Property Council (FRPC) Measures

IHS is required to consider the four major FRPC measures as part of the planning process decision. These include the Condition Index, O&M Cost, Mission Dependency, and utilization of the asset.

D. Project Definition Rating Index (PDRI)

To assist in determining the current status of a project, an evaluation using the Project Definition Rating Index created by the Construction Industry Institute will be used as measurement of a project's readiness for construction. The PDRI is a planning tool for use by the project leadership team to evaluate the project's development from planning through construction. The PDRI is a useful tool for evaluating the ongoing status of a project. A PDRI initially scores various elements of the planning process. The intent of the process is to ensure sufficient project planning prior to proceeding to the next project phase (Design, Construction). The submission of a PDRI is required as part of the FPAA for Federally-owned real property assets.

E. Project Summary Document (PSD)

This document is used to justify, scope, and explain health care facilities projects with a total cost of over \$25,000 but less than \$1,000,000. Approval is at the Area level. The Area Director should not approve this document until funds are available.

F. Program Justification Document (PJD)

The Program Justification Document is a comprehensive document that details the need for a new facility, expansion of an existing facility, or the addition of staff quarters which is denoted as a PJD for Quarters (PJDQ). The PJD includes documentation on the existing facility, the existing health care service programs, any proposed additional service programs, the condition of the facility and its user population served. The PJD addresses future needs, levels of service to be provided, projected user populations, staffing profiles, and tribal programs. The document is prepared by the Area Planning Office in consultation with the Service Unit and Tribe(s) served, using the Health System Planning (HSP) and Resource Requirements Methodology (RRM) software.

Documentation in the way of Facility Condition Assessments, the Backlog of Essential Maintenance and Repair, and other facilities related items will aid the Planning Office in preparing this document. Good record keeping is vital. Approval of the PJD is at the Headquarters level coordinated through the DFPC project officers.

For new facility construction, a Phase I Site Selection and Evaluation Report is prepared for inclusion with the PJD. Generally several sites for the possible location of a new facility are evaluated and scored using established criteria. Site selection information can be found in the Technical Handbook, Chapter 13-4.

G. Program of Requirements (POR)

After the PJD is approved, the Area Planning Office prepares a POR. It includes the types of services that will be provided, the space requirements for each individual department, and a cost estimate. The Health System Planning (HSP) computer program assists the planner in preparing the space requirements. IHS cost estimates are obtained from The Division of Engineering Services (DES) based on the space requirements using the Facility Budget Estimating System (FBES). Approval is at the Headquarters level. A POR for Quarters is denoted as a PORQ.

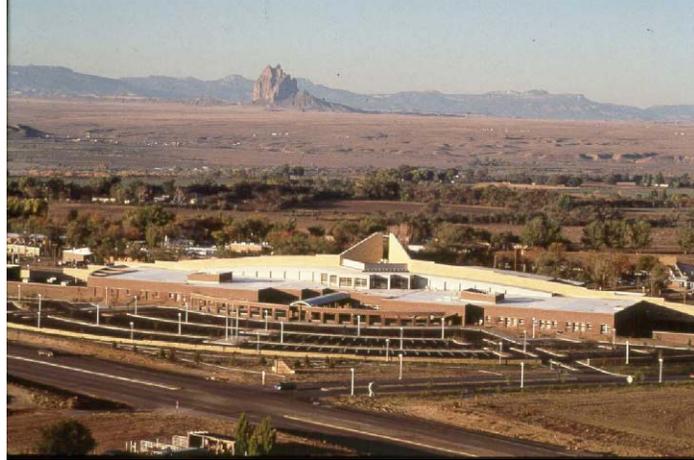
The Phase II Site Selection and Evaluation Report is completed during this process. Phase II is an in-depth look at the proposed site and estimates for the infrastructure needed to serve the proposed new facility. The evaluation also includes completion of all NEPA and environmental compliance provisions.

The POR must outline the current requirements for sustainability and energy that are to be achieved.

H. Priority System for New Construction

At the time this update was written (February 2010) the IHS worked with the Facilities Appropriation Advisory Board (FAAB) to define and implement a new priority system for health care facility construction. The new priority system was submitted to the Department HHS for review and still needs approval by OMB and Congress prior to being implemented.

Currently, the IHS uses a comprehensive priority system to determine the locations where new and replacement facilities are most critically needed. The system ranks proposals objectively using factors reflecting the total amount of space required; age and condition of the existing facility, if any; degree of isolation of population to be served in the proposed facility; and availability of alternate health care resources. Periodically, IHS Headquarters solicits proposals from the Areas for essential staff quarters projects, replacement/new modular dental units, and new or replacement health care facilities. These proposals are evaluated objectively and prioritized. Once the PJD is approved, it is placed on the appropriate construction priority list and proposed to Congress for funding.



Northern Navajo Medical Center, Shiprock, NM

New construction projects that are on the priority list are shown in the table below. These projects are in various stages (awaiting funding, design, or construction). New construction completed since 1998 are shown in Appendix B, History.

PRIORITY LISTS

<u>Health Care Facilities Construction</u>		<u>Quarters</u>	<u>Youth Regional Treatment Centers</u>
<u>Inpatient:</u>	<u>Outpatient:</u>		
PIMC Health System, AZ, PIMC Southeast ACC PIMC Northeast ACC PIMC Central Hosp & ACC Barrow, AK Nome, AK Whiteriver, AZ Gallup, NM	Ft. Yuma, AZ Eagle Butte, SD Kayenta, AZ San Carlos, AZ Rapid City, SD Winslow-Dilkon, AZ Alamo Navajo, NM Pueblo Pintado, NM Bodaway-Coppermine, AZ Albuquerque Heath System, NM, Albuquerque West Albuquerque Central Sells, AZ	Wagner, SD Fort Belknap, MT	California, Central-Southern California, Northern

I. Renovation

Renovation of health care facilities is common. As programs change and health care evolves, the need to improve the space in a facility is unavoidable. Often renovation is required to meet the current standards of health care delivery. Minor renovations can be accomplished using in-house staff, but it is not the preferred method of accomplishing the work. The primary function of in-

house staff is the operation and maintenance of the facilities. Using in-house staff for renovation projects may compromise preventive and routine maintenance.

Depending on the scope of the proposed renovations it may be necessary to contract the services of an Architectural and Engineering (A&E) firm to design the renovation and prepare the construction package. The Area Facilities Engineering Office and/or the Division of Engineering Services offices in Dallas and Seattle can provide technical assistance. A&E firms are available through an indefinite delivery, indefinite quantity contract through the Division of Engineering Services, thus reducing the amount of time it takes to bring an A&E on board.

J. Construction Contracting

Construction contracting services may be available at the Area level or from the Division of Engineering Services in Dallas or Seattle.

7. Accreditation

The majority of IHS-operated hospital installations have adopted The Joint Commission (TJC) standards for their health care facilities. The Accreditation Association for Ambulatory Health Care (AAAHC) and CMS are also used for accreditations of healthcare facilities. Youth Regional Treatment Centers are accredited by TJC or the Commission on Accreditation of Rehabilitation Facilities (CARF). This guide will concentrate on the TJC standards as they relate to a full service health care organization.

The term “Environment of Care” comes from TJC. They set national standards for providing care in health care facilities. Because the Facility Manager has a direct impact on every aspect of the environment in the facility they must be well versed in the TJC standards.

A. The Joint Commission

In order to comply with the TJC Environment of Care standards the following program elements must be established, implemented, and monitored:

1. Safety and Security Management
2. Hazardous Materials and Waste Management
3. Life Safety Management
4. Medical Equipment Management
5. Utilities Management

Facilities Managers should also be familiar with the TJC “Infection Control” and “Emergency Management” chapters.

Design of the buildings must comply with Life Safety Code, NFPA 101, Americans with Disabilities Act (ADA), and Facilities Guidelines Institute (FGI) Guidelines for Design and Construction Health Care Facilities.

The establishment of plans and monitoring procedures to ensure compliance with the TJC standards are generally performed by the safety committee. Implementation is delegated to each affected department head. Minimal compliance with the Environment of Care Standards requires the following:

1. Management Plan (What) – Each program element (1-7) above requires a management plan. A management plan is a written narrative that defines what management (Chief Executive Officer) establishes as the minimum requirements for each environment of care program element at the installation. Management plans are developed by key officials at the installation who are delegated the responsibility for each of the program elements. The installation safety committee coordinates the overall final plan for

management's signature. Think of the plan as answers to direct questions posed by the relevant standard. Say what you want to do to be compliant, in roughly 3 to 5 pages each.

2. Policies and Procedures (How) – The requirements defined for each program element in a management plan are implemented throughout the installation. Each appropriate department head develops written policies and procedures unique to their respective departments. Policies and procedures define how the requirements established in the management plan will be implemented by each affected department.
3. Training (Implement) – The plan is made known to each pertinent employee. A training program must be developed and implemented in order for employees to be fully knowledgeable in the requirements of the Environment of Care and be skilled in their duties and responsibilities in support of each program element. Each appropriate department head therefore establishes a training program to ensure that each new employee receives initial orientation. All employees receive refresher training at periodic intervals as established in the management plans.
4. Emergency Drills (Exercise) – The life safety, security, and emergency preparedness program elements are the only elements that require periodic demonstrations or rehearsals. The purpose of this is to evaluate the installation's effectiveness in implementing the requirements established in the management plans. The other elements only require logging of data (Preventive Maintenance completion rates, for instance).
5. Monitors of Performance (Measure) – Program elements need to be evaluated periodically to ensure they are consistently complying with expected acceptable standards. Monitors of performance (indicators or benchmarks) are developed beforehand and utilized to compare, analyze, and measure historical performance of each element.
6. Effectiveness Reviews (Evaluate) – Each program element is evaluated at least annually to assure adherence to the management plan. Each program element is evaluated by the installation safety committee which focuses on the “plan, do, check, act” methodologies above. Once completed, this work is submitted to the Governing Body for approval. The task of conducting some of the reviews may be delegated to key officials as established in the management plans. However, all reviews are submitted to the installation safety committee for coordination and subsequently forwarded to the Governing Body for approval.

B. Statement of Conditions (SOC)

The SOC is a questionnaire obtained from TJC which is used to conduct a written assessment of life safety compliance of each building that houses four or more patients overnight or treats four or more patients incapable of taking their own means of self preservation. The document must be completed online via the <http://www.jointcommission.org> website, using the “The Joint Commission Connect” login section. A SOC is not required for buildings classified as Business Occupancies. However, the SOC checklist is very helpful in assessing other occupancies.

C. Plan for Improvement (PI)

All building deficiencies identified in the SOC require a plan of action for correcting the deficiencies by the owner. The Plan for Improvement is a part of the SOC. Failure to complete the SOC schedule as outlined in the Plan for Improvement will lead to conditional accreditation.

D. Equivalencies

An equivalency is a recognition that compliance with the intent of a standard has been met in a manner other than that prescribed by Code through a combination of other equivalent or superior measures. Documentation of equivalent measures must be approved by TJC in order to secure compliance for accreditation. It should be noted that an equivalency granted by the Division of Engineering Services needs to be accepted by TJC for accrediting purposes.

The Division of Engineering Services as the Agency Authority Having Jurisdiction (AHJ) is responsible for evaluating and making determinations of equivalencies. Refer to Technical Handbook Chapter 24-2.5, Authority Having Jurisdiction, for procedures to request an equivalency determination. This handbook chapter is posted on the IHS website at <http://www.oehe.ihs.gov/hb/pdf/02402a24-2.5.pdf>.

E. Waivers and Variances

Waivers or variances are a means of recognizing that the code requirements have been waived or allowance made for a variance. TJC does not grant waivers or variances to the Life Safety Code requirements, nor does it recognize waivers or variances issued by other agencies or authorities having jurisdiction.

The Division of Engineering Services as the Agency Authority Having Jurisdiction (AHJ) is responsible for evaluating and making waiver and variance determinations. Refer to Technical Handbook Chapter 24-2.5, Authority Having Jurisdiction, for procedures to request a waiver or variance equivalency determination. This handbook chapter is posted on the IHS website at <http://www.oehe.ihs.gov/hb/pdf/02402a24-2.5.pdf>.

F. Interim Life Safety Measures (ILSM)

An organization must develop and implement activities to protect occupants during periods when a building does not meet the applicable provisions of the *Life Safety Code*[®]. When building code deficiencies are identified and cannot be immediately corrected or during renovation or construction activities, the safety of patients, staff, and other people coming to the health care facilities is diminished. An organization must proactively identify administrative actions (for example, additional training, additional inspections, additional fire drills and so on) to be taken if these scenarios arise.

Construction or other activities that may alter safety conditions at a facility requires the implementation of ILSM until such time as they are no longer needed. ILSM is implemented to ensure safety when life safety conditions are temporarily compromised. ILSM should go into effect whenever activities:

- Alter or compromise the integrity of exit access, exit or exit discharge features;
- Significantly compromise the integrity of the buildings defend-in-place compartmentalization features (i.e. fire barriers, smoke barriers, floor slabs, corridor walls, etc.);
- Impair the building's fire alarm, fire detection or fire suppression systems;
- Involve temporary sources of ignition (i.e. cutting, welding, plumbers torch operations); and
- Involve the presence of large quantities of combustibles and debris.

Verify the facility meets ILSM requirements by:

- Ensuring free and unobstructed exits. Staff receives additional information/communication, when alternative exits are designated. Buildings or areas under construction must maintain escape routes for construction workers at all times. The means of exiting construction areas are inspected daily, ensuring free and

- unobstructed access to approved exits and emergency services and for fire, police, and other emergency forces;
- Ensuring that fire alarm, detection, and suppression systems are in good working order. A temporary but equivalent system must be provided when any fire system is impaired. Temporary systems must be inspected and tested monthly;
 - Ensuring that temporary construction partitions are smoke-tight and built of noncombustible or limited combustible materials that will not contribute to the development or spread of fire;
 - Providing additional fire fighting equipment and training of staff in its use;
 - Prohibiting smoking throughout the facility and in or near construction areas;
 - Developing and enforcing storage, housekeeping, and debris-removal practices that reduce the building's flammable and combustible fire load to the lowest feasible level;
 - Conducting a minimum of two fire drills per shift per quarter;
 - Increasing surveillance of buildings, grounds, and equipment, with special attention to excavations, construction areas, construction storage, and field offices;
 - Training staff to compensate for impaired structural or compartmentalization features of fire safety; or
 - Conducting organization-wide safety education program to promote awareness of fire safety, building deficiencies, construction hazards, and ILSM.

G. Infection Control Risk Assessment for Construction

Every proposed new construction or renovation project must begin with an Infection Control Risk Assessment. TJC requires documentation that a risk assessment was performed prior to the project. The proposed project should be evaluated by a team of Service Unit staff to determine if the project can be accomplished while still ensuring the safe delivery of health care. At a minimum the Risk Assessment team should consist of the facility manager, the safety officer, the chief medical officer or designee, and the infection control officer. Other personnel, especially those in departments impacted by the project, should also be involved.

The risk assessment team should participate in the design process. Their approval is required before a project can proceed with the construction phase. When planning demolition, construction, or renovation, apply the risk criteria that address the impact of demolition, renovation, or new construction on air quality requirements, infection control, utility requirements, noise, vibration, and emergency procedures. The risk assessment will lead to the preparation of an Infection Control Plan. Examples of infection control measures that may be appropriate to implement in an Infection Control Plan are:

- Temporary barriers to control dust and debris from entering occupied areas;
- Closing selected return air ducts in the construction area to prevent dust from entering the air supply system;
- Tacky mats at the entrance to the construction area; or
- Providing High Efficiency Particulate Air (HEPA) filtration in construction areas.

Note: In a health care environment, preventing construction dust from entering surrounding areas is crucial. Implementation of measures for dust control such as HEPA filtration is an integral part of infection control. Be sure to document these activities in the construction activities reports, and in the safety committee minutes.

In basic terms, if the proposed project adversely impacts infection control in a facility, the project should not be done with the facility operational.

8. Quarters Management

The management of Government-controlled quarters administered by the IHS shall be in accordance with Part 36 – Quarters Management of the Technical Handbook for Environmental

Health and Engineering. Although the Facilities Maintenance program will be responsible for the maintenance of quarters assets; the Quarters Management is administered by the Delegated Official, Housing Officer, and housing committee as specified in the Technical Handbook. An overview of the Quarters Management responsibilities is presented in the IHS, Guide to Quarters Management Program available at <http://www.dfo.ihs.gov/index.cfm?page=rpdocs#quarters>.

9. Other Programs

This section discusses other programs that are not directly related to the Healthcare Facilities Engineering Program but work closely with the Healthcare Facilities Engineering Program. In many instances, these are collateral duties within the facilities department or may be programs supervised by the facility manager. For some of these programs, it may not be the best fit to have the program under facilities management.

A. Personal Property

Personal property includes other property not classified as real property. Personal property is classified as items that are not inherent to the function of a generic building, they can be removed. Examples of personal property include, but are not limited to items such as fire extinguishers, ice makers, cooking ranges, refrigerators, bottled gases, portable ventilation, clinical equipment, lawn mowers, cars, vans, trucks, rugs, artwork, or window air conditioners.

(1) Personal Property Medical Equipment

Personal property can also be medical equipment that is used in the diagnosis, treatment, or analysis of a patient's medical condition. Some examples would be: patient exam tables, radiology equipment, or dental equipment such as chairs and lights.

B. Housekeeping

Housekeeping is a distinct function separate from facilities management. The Indian Health Manual, PART 5, Chapter 10, Housekeeping and Linen Services, outlines the requirements for the Health Care Facilities Housekeeping and Linen Services Program.

<http://www.ihs.gov/PublicInfo/Publications/IHSMannual/Part5/pt5chapt10/pt5chapter10.htm#4>.

This chapter establishes the Office of Environmental Health and Engineering role as consultative to the Health Care Facilities Housekeeping and Linen Program on environmental engineering and environmental health matters.

C. Safety

The safety program should work closely with facilities management program since some of the most dangerous work is performed by facilities in the operation and maintenance of the facilities. This includes use of power tools, operation of equipment, handling chemicals, contact with waste water, using welding equipment or other ignition sources, entering confined spaces, and operating mechanical and electrical equipment. For these reasons the safety officer should be autonomous from the facilities management program so that safety procedures are followed and issues are properly addressed.

D. Security

Although the facilities management program plays a role in the physical security of the facility by maintaining access control and proper inventory of keys and access cards, facilities staff is usually not trained to operate a security program or handle security issues that arise. Building security should be provided and supervised by properly trained personnel.

List of Acronyms

A&E: Architectural and Engineering	NPDES: National Pollutant Discharge Elimination System
AAAH: Accreditation Association for Ambulatory Health Care	O&M: Operation and Maintenance
ACM: Asbestos Containing Material	OEHE: Office of Environmental Health and Engineering
ADA: American with Disabilities Act	OSHA: Occupational Safety and Health Administration
AHJ: Authority Having Jurisdiction	P.L.: Public Law
AIA: American Institute of Architects	PCB's: Polychlorinated Biphenyls
AO: Administrative Officer	PDRI: Project Definition Rating Index
BEMAR: Backlog of Essential Maintenance, Alteration and Repair	PHS: Public Health Service
BMP: Building Maintenance Program	PI: Plan for Improvement
CEO: Chief Executive Officer	PJD: Program Justification Document
CFC: Chlorofluorocarbons	PJDQ: Program Justification Document, Quarters
CI: Condition Index	POR: Program of Requirements
CMS: Centers for Medicare and Medicaid Services	PSC: Personal Services Contract
DES: Division of Engineering Services	PSD: Project Summary Document
DFO: Division of Facilities Operations	QR: Quarters Return
DFPC: Division of Facilities Planning and Construction	R/R: Repair by Replacement
DHHS: Department of Health and Human Services	RCRA: Resource Conservation Recovery Act
DoD: Department of Defense	RRM: Resource Requirements Methodology
FAAB: Facilities Appropriation Advisory Board	SAP: Small Ambulatory Program
FBES: Facility Budget Estimating System	SMDA: Safe Medical Devices Act
FEDS: Facilities Engineering Deficiency System	SOC: Statement of Conditions
FEPP: Facilities Engineering Program Plan	TJC: The Joint Commission
FPA: Facility Project Approval Agreement	UST: Underground Storage Tanks
FRPC: Federal Real Property Council	YRTC: Youth Regional Treatment Center
FSA: Facilities Support Account	
H&C: Hospitals and Clinics	
HEPA: High Efficiency Particulate Air	
HFDS: Healthcare Facilities Data System	
HQ: Headquarters	
HSC: Health Services appropriation Carryover	
HSP: Health System Planning	
HVAC: Heating, Ventilation and Air-Conditioning	
IHS: Indian Health Service	
ILSM: Interim Life Safety Measures	
JVCP: Joint Venture Construction Program	
LBP: Lead-Based Paint	
M&I: Maintenance and Improvement	
M/M: Medicare/Medicaid	
NFPA: National Fire Protection Association	



Sonoma County Indian Health, Santa Rosa, CA

Glossary of Terms

Engineering and operation terminology can be confusing. The following is a list of common terms used in the facility engineering program. It is offered as a brief reference and not intended as an in-depth explanation.

Air Handler: A piece of mechanical equipment that is used to supply heated or cooled air to buildings.

Alterations: Improvements that consist of any betterment or change to an existing property to allow its use for different purpose or function.

Authority Having Jurisdiction (AHJ): The Safety Officer at the facility is the AHJ responsible for day to day enforcement of codes and standards. For construction projects, the office managing the project (Area or DES) is the AHJ responsible for code implementation and enforcement. To resolve conflicts arising from code implementation and enforcement, DES is the AHJ responsible for issuing formal code interpretations. TJC and CMS are AHJs on issues affecting accreditations and Medicare / Medicaid reimbursements.

Automatic Transfer Switch: This is a very important electrical switch. It transfers power loads from city power to the emergency generator in times of power failure.

Backlog of Essential Maintenance Alteration and Repair (BEMAR): Refers to the category of maintenance and repair that

has been deferred because of lack of funding or staff to implement the needed repairs. This category excludes lack of program space. Also see Deferred Maintenance.

Bench Stock: The inventory of parts kept on hand for operation and maintenance purposes. For example: light bulbs, nuts, bolts, plumbing supplies, or electrical supplies.

Biomedical Equipment: It is medical related equipment used in direct patient care. Also referred to as Clinical Equipment.

Boiler: A boiler is one of the basic units in the power plant. It is used to heat water for various uses, including providing heat to the buildings and domestic hot water.

Building Service Equipment: Equipment that is attached to, and/or an integrated part of a building. Examples include: air handlers, piping and elevators.

Centers for Medicare & Medicaid Services (CMS): A division of DHHS with oversight authority for Medicare & Medicaid.

Chiller: The chiller provides cold water that is used to provide cooling to buildings.

City Power: The definition of City Power, for the purpose of this text is: any entity providing electrical power to a facility or installation. The term includes private power companies, rural power distributors or in some cases the BIA.

Clinical Equipment: It is medical related equipment used in direct patient care. Also referred to as Biomedical Equipment.

Condenser Unit: A piece of mechanical equipment used in air conditioning. Gaseous refrigerant is returned to a liquid, taking heat out of the building.

Condition Index: It is a general measure of the constructed asset's condition at a specific point in time. The calculation for the Condition Index is:
$$CI = [1 - (\text{cost of needed repairs} / \text{Replacement Value})] \times 100$$

Deferred Maintenance: Maintenance that was not performed when it should have been or was scheduled to be and which, therefore, is put off or delayed for a future period.

Deficiency: An existing item that is in poor physical condition, or does not exist, or does not comply with current minimum

acceptable mandatory standards. Deficiencies include items that must be corrected to meet public law, regulatory provisions, and recognized engineering and management standards.

Egress: A means of egress is a continuous and unobstructed way of exit travel from any point in a building to a public way. Means of egress consist of exit access, exit and exit discharge.

Emergency Generator: The piece of equipment that supplies emergency power for an installation's emergency needs in times of power failure.

Emergency Power: Partial electrical power that runs critical equipment such as life support equipment and life safety equipment such as emergency lighting. It is separate but interconnected to the city power system.

Equipment: Tangible, personal property having a useful life of more than two years and an acquisition cost of \$300 or more.

Equipment, Non-patient care: All personal property that is not used for clinical purposes (e.g., ovens, dishwashers, computers, window air conditioners).

Equipment, Patient Care: Personal property equipment used in the diagnostic and/or treatment of patients (e.g., X-ray, centrifuges, blood gas analyses, dialysis, patient monitors) normally referred

to as clinical personal property.

Exit: Portion of a means of egress that is separated from the rest of a building by protective construction to provide a protected way of travel to the exit discharge.

Exit Access: The path from the most remote location in a room, continuing out through the door to the room leading to a corridor and ending at a door or an exit. (i.e. to the outside of the building or the first door in an exit stairwell).

Exit Discharge: Portion of a means of egress between the termination of an exit and a public way.

Facility: A building or a complex of buildings that operate as an integral whole. All buildings of a facility occupy the same site or campus.

Facility Condition

Assessment: A method of assessing the condition of a facility, documenting any deficiencies and providing cost estimates for needed repairs.

Facilities Engineering Deficiency System

(FEDS): A database used to manage facilities condition deficiencies.

Facilities Engineering Program Plan (FEPP):

The plan assists in assessing facility needs and allocating resources efficiently.

Facility Project Approval Agreement (FPAA):

The

DHHS retains approval authority for all IHS new construction projects over \$1,000,000, Improvement Projects over \$2,000,000, and repair or renovation projects over \$5,000,000.

Fee Simple Land: Real estate term referring to the type of ownership of a property. Fee Simple gives the owner the maximum interest in the land.

Fire Barrier: A fire barrier is a continuous membrane vertical and horizontal, (walls and floors) constructed with the specified fire resistance rating to limit the spread of fire and restrict the movement of smoke. Fire will stay on one side of the barrier for the time in hours the barrier is rated.

Fire Rating: The time a material or assembly has withstood a fire exposure in accordance with NFPA-251. For example an elevator door may have a 3-hour fire rating; a typical office door may only have a 20-minute fire rating.

Healthcare Facilities Data System (HFDS):

The database kept at Headquarters for the purpose of asset management. It contains a multitude of information elements.

Improvement: Any betterment or change to an existing property to allow its continued or more efficient use within its designated purpose (Renovation), or for use for a different purpose or function (Alteration).

Interim Life Safety

Measures (ILSM): A series of administrative actions taken to compensate *temporarily* the hazards posed by existing NFPA 101-Life Safety Code deficiencies or construction activity.

Inspection: The examination of a system, components of a system or individual equipment items to determine their conformance to applicable quality standards or specifications of operation.

Installation: Separately located and defined real property that stands alone as an entity (e.g. health center, clinic, hospital, quarters, or combination of). An installation includes the land and accompanying structures and utilities.

Joint Commission, The (TJC): An independent accreditation organization. The IHS uses TJC extensively to evaluate health care organizations. TJC was previously known as Joint Commission on Accreditation of Healthcare Organizations (JCAHO).

Lease: Specific rights to real property that have been assigned to the Federal Government for a defined period of time. A Federal lease is both a conveyance and contract to possess and use real property for a pre-determined period of time.

License: The right to use Federal property for non-federal purposes, revocable at the will of the grantor. It

does not convey an interest in the property.

Maintenance: Work to keep an installation in a usable state or condition and in operation for its intended purpose.

Maintenance and Improvement Funds: Funds allocated to provide for the operation and maintenance of a facility.

Mixed Occupancy: When two or more types of occupancies occur in the same building, Life Safety requirements must meet the most restrictive requirements of the two. These are only permitted if a suitable fire barrier is constructed between them.

Modular Building: A building that is pre-constructed off-site, in sections and transported and assembled on-site. The sections are not usually structurally self sufficient. These usually have a 20-year life span.

New Construction: Erection, installation, or assembly of a new building, structure or installation.

National Fire Protection Association (NFPA): NFPA sets standards for fire and general safety.

Normal Power: Electrical power that supplies non-emergency equipment, city power.

Occupancy: For fire codes, occupancy defines the purpose for which a building or portion of a building is used.

Occupancy categories define such things as the construction of a building and the life safety requirements.

Oklahoma Formula: Methodology for the distribution of funds. The IHS uses a modified version of this formula to distribute M&I and Equipment funds.

Permanent Building: A building constructed on-site, (not transportable), permanent in nature. The estimated life span is 40 years without major renovation.

Personal Property: All property other than Real Property. This property is not part of the health care facilities engineering program.

Pre-Project Planning: Is the process of developing sufficient strategic information prior to committing resources. The intent is to increase the probability of a successful project.

Preventive Maintenance: The systematic, scheduled care of property and equipment. It assures continuing service and avoids breakdowns.

Program Justification Document (PJD): The document used to justify health care facilities projects over \$1,000,000 in value. Approval is at Headquarters level.

Program of Requirements (POR): The engineering requirements of program services at new health care

facilities and staff quarters over \$1,000,000. Approval is at Headquarters level.

Project Definition Rating Index (PDRI): Is a planning tool that scores various elements of the planning process. The intent of the process is to ensure sufficient project planning prior to seeking funding.

Project Summary Document (PSD): This document is used to justify, scope, and explain health care facilities projects over \$25,000 in value but less than \$1,000,000 in value. Approval is at the Area level.

Real Property: Land (acreage), together with exterior site utilities, buildings (including prefabricated structures such as Butler® buildings, Quonset huts, and trailers with or without undercarriages), and fixtures located on the land.

Renovation: Any betterment or change to an existing property that allows for its continued or more efficient use. It does not change the property's purpose or function.

Repair: The restoration of a failed or failing primary building system or real property facility component to a condition that restores its effective use for its designated purpose.

Risk Assessment: In terms of facility management a Risk Assessment is prepared prior to beginning any

construction at an installation, or when ever an unsafe act can not be corrected immediately. It helps prepare an Infection Control Plan that will outline the necessary precautions for ongoing safe operations during construction activities.

Service Contract: Employment of a contractor to perform duties associated with facility operation or maintenance. For example: a contract for elevator testing, or a contract to perform maintenance on a boiler or chiller.

Smoke Barrier: A smoke barrier is a continuous membrane vertical and horizontal, such as a wall or floor assembly that is designed and constructed to restrict the movement of smoke. Smoke will remain on one side of the barrier for the time in hours for which the barrier is rated.

Smoke Compartment: An area within a building that is enclosed by smoke barriers on all sides, including top and bottom.

Standby Generator: Generates power to support general equipment in times of power failure, but not critical or life safety equipment.

Stewardship: The IHS is a "Steward" of any heritage (historic) property under its control. The IHS treats Indian Trust Land as Stewardship Land for management and reporting purposes.

Supportable Space: The facilities space the IHS will support with M&I and equipment resources. The IHS has developed a policy that identifies the space supported.

Sustainability: Sustainable Building is an outcome of a design which focuses on increasing the efficiency of resource use — energy, water, and materials — while reducing building impacts on human health and the environment during the building's lifecycle, through better siting, design, construction, operation, maintenance, and decommissioning.

Temporary Building, Trailer or Mobile: A building manufactured to be transported easily to various locations. Construction is based on Transportation standards versus the local building code. Estimated life is 10 years. This type of construction deteriorates rapidly and often has high energy usage and maintenance costs associated with it. The IHS does not accept the use of these types of buildings due to high maintenance and lack of durability.

Use Permit: The right of one Government agency to use the property of another agency on a temporary basis. It does not transfer control of the property, but only its temporary use.

End of Glossary.

APPENDIX A – CREDENTIALING

It is in the best interest of the Service Unit that facility management employees be continually trained and educated.

Facility Engineers and Managers are encouraged to obtain formal credentialing through educational institutions or recognized professional organizations. Credentialing elevates the credibility and competence of the facility manager.

The Indian Health Service has developed a basic course of study and practicum to serve as a credentialing guide for Facility Managers. It is intended to form the foundation for formal credentialing through appropriate professional organizations or accredited schools. Some of these include the American Society for Healthcare Engineering (ASHE), Building Owners and Managers Association (BOMA), International Facility Management Association (IFMA), and the Society of American Military Engineers (SAME).

Note:

Sources of training are numerous, but an important component exists at the IHS Environmental Health Support Center (EHSC). EHSC offers many courses which meet credentialing recommendations. Information on courses and registration can be obtained at the EHSC website: www.ehsc.ihs.gov

The following is an idealized list. The training and education requirements should be accomplished sequentially as part of an individual development plan. It is recommended that the Facility Manager receive training in the following:

Program Orientation

- Area Office Orientation
- Basic Supervision
- Facilities Engineering Orientation I
- Facilities Engineering Orientation II
- Management Training
- Technical Writing
- Technical Handbook for Health Facilities

Codes and Standards

- Life Safety Code, NFPA 101
- Healthcare Facilities, NFPA 99
- National Electrical Code, NFPA 70
- Standard for Electrical Safety in the Workplace
- Electrical Equipment Maintenance – NFPA 70B
- Inspection/Testing of Fire Protection Systems FPS 93
- TJC Accreditation, Environment of Care Standards
- FGI Guidelines for Design and Construction of Health Care Facilities

Government Rules and Regulations

- Occupational Safety and Health Act (29 CFR 1910)
- Americans with Disabilities Act (ADA) Accessibility guidelines
- Hazard Communication/Right-to-Know in Health Care
- Environmental Protection Agency – Hazardous Waste Operations and Emergency Response Standard (HAZWOPER).

Planning and Construction

- Basic Project Officer Course, contact local Contracting Officer
- Preparing Risk Assessments for Health care Construction
- Infection Control in Health care Construction
- Basic Plan Review
- Construction Inspection
- RS Means Construction Estimating
- Health Systems Planning (HSP) software training

Seminars and Coursework

- Preventive Maintenance
- Waste Management for Health care Facilities
- Energy Management for Health care Facilities.
- Emergency Preparedness for Health care Facilities
- Industrial Hygiene in Health care
- Water Treatment Technology
- Facilities Engineering Work Management
- Facilities Maintenance Management
- Energy Equipment Recovery Systems
- Electrical Systems for Health care Facilities

FAC-Program/Project Managers Certification

- Personnel that have duties as a Project Manager for construction acquisitions of projects requiring a PSD or PJD, must obtain and maintain a FAC-P/PM certification. This program was being implemented at the writing of this guide and additional information on the status of the FAC-P/PM program should be obtained through the Area OEHE.

*Saint Paul Health Center
St. Paul, Alaska*



APPENDIX B – PROGRAM HISTORY



Winslow Indian Hospital, Winslow, Arizona

The table below lists the new construction projects that have been completed since 1993. New construction projects currently on the priority list are listed in a table under Section 6.H, Priority System for New Construction.

COMPLETED CONSTRUCTION (FY 1993 -Present)			
HOSPITALS	HEALTH CENTERS	QUARTERS	YOUTH REGIONAL TREAT. CENTERS
Pine Ridge, SD 12/1993	Warm Springs, OR 6/1993	Rosebud, SD 2/1993	Fairbanks 10/1993
Shiprock, NM 2/1995	Puyallup, WA 7/1993	Neah Bay, WA 5/1993	Sacaton, AZ 3/1994
Crow, MT 2/1995	Taos, NM 9/1993	Dulce, NM 9/1993	Mt. Edgecumbe, AK 9/1994
Kotzebue, AK 3/1995	Wagner, SD 8/1993	Barrow, AK 5/1993	Spokane, WA 3/1996
Anchorage, AK 2/1997	Belcourt, ND OPD 2/1994	Pine Ridge, SD 12/1993	Chief Gall, SD 8/1996
Talihina, OK 6/1999	Poteau, OK 9/1994	Kotzebue, AK 2/1996	Wadsworth, NV 7/2007
Ft. Defiance, AZ 2/2004	Tohatchi, NM 1/1995	Belcourt, ND 6/1997	
Winnebago, NE 4/2004	Stilwell, OK 4/1995	Bethel, AK 3/2005	
	Belknap, MT [638]:	Zuni, NM 6/2006	
	Hays, MT 8/1997		
	Harlem, MT 4/1998		
	White Earth, MN 4/1998		
	Lame Deer, MT 7/1999		
	Hopi (Polacca), AZ 5/2000		
	Parker, AZ 10/2001		
	Pawnee, OK 3/2004		
	Pinon, AZ 8/2005		
	St. Paul, AK 1/2006		
	Metlakatla, AK 3/2006		
	Red Mesa, AZ 9/2006		
	Clinton, OK 12/2006		
	Sisseton, SD 1/2007		
	PIMC Southwest, AZ 11/2008		



Warm Springs Hospital, Warm Springs, Oregon

Old Kotzebue Hospital
Kotzebue, Alaska



The tables that follow were compiled from various sources. Reports of errors and omissions are appreciated.

Updated 6/24/09 14:00

Indian Health Service - Health Care Facilities Program Managers History

Year	Aberdeen	Alaska	Albuquerque	Bemidji	Billings	California	Nashville	Navajo	Oklahoma	Phoenix	Portland	Tucson
1980	Bob Holman	Kenneth Harper			Bill Wondersee	f	f	Tom Gallegos	Tom Bedick	Eugene Price		
1981	v	v		Gary Radtke	v	f	f	v	v	v		
1982	v	v		v	v	f	f	v	v	v		
1983	Gordon Wilcox	v		v	v	f	f	v	v	v		
1984	v	v		v	v	f	f	v	v	v		
1985	v	v		v	v	f	f	v	v	v		
1986	v	John Delapp		v	v	f	f	William Lowe (a)	v	v		
1987	v	v		Gerald Falin	v	f	George Styer 5/87	John Hutchison		v		
1988	v	v		v	v	f	v	v		v		
1989	v	v		v	v	f	v	v		v		
1990	Marty LaRoche	v	Dennis Taylor	v	Gary McFarland	Kerry Gregg	v	Gilbert Harrison	Frank Kauhquo	v	Wes Bell	Roger Carmicheal
1991	v	v	v	v	v	v	v	v	v	v	v	v
1992	v	v	v	v	v	v	v	v	v	v	v	v
1993	v	Mark Brumbaugh	v	v	v	v	v	v	v	Charlie Johnson	v	v
1994	v	v	v	Victor Mosser	v	v	v	v	v	v	v	v
1995	v	v	v	v	v	v	v	v	v	v	v	v
1996	v	Jay Farmwald	v	v	v	v	v	v	v	v	v	v
1997	v	v	v	v	v	v	Ray Behel / George Styer 07/96 (shared duties)	v	v	v	v	v
1998	v	v	v	v	v	v	v	v	v	v	v	v
1999	v	v	Dennis Taylor Rick Weller	v	v	v	v	v	v	v	v	v
2000	v	v	Rick Weller Darrell LaRoche 10/00	v	v	v	v	v	v	v	v	v
2001	v	Doug Ott	v	v	v	v	v	v	v	v	v	v
2002	v	v	v	v	v	v	v	v	v	v	v	v
2003	v	v	Darrell La Roche	v	v	v	v	v	3/03 Frank Kauhquo Bobbie Gonzalez 3/03 (act)	Kevin Stover (act) Dennis Barber (8/03)	v	v
2004	v	v	v	v	v	v	v	v	v	v	v	v
2005	v	v	v	Peter Hartmann (act)	v	v	George Styer 01/05	v	v	Dennis Barber (6/05) Keith Shortall (7/05)	Wes Bell 4/04 Dale Mossefin/ Gene Kompkoff (act)	v
2006	v	Dale Mossefin	v	v	Gary McFarland 4/06 Robert Biddle	Kerry Gregg 01/06 Rick Wemers	v	v	v	v	Marvin Weber (act)	v
2007	Marty LaRoche 7/07 Jon Fogarty/ Kathy Mercure (act)	v	v	Peter Hartmann (act) 11/07 Todd Scofield	v	v	v	Gilbert Harrison 12/07	v	v	Mathew Martinson (act)	Roger Carmicheal 2/07 Robert Drummond 7/07 Jennifer Proctor Jennifer Proctor 11/07
2008	v	v	10/08 Darrell La Roche 11/08 Deanne Waconda (act)	v	v	v	v	1/08 Candace Tsingine (act)	Bobbie Gonzalez 3/08 (act) 3/08 Ken McKenzie (act)	v	v	Marc Fleetwood 3/08
2009	v	v	v	v	v	v	v	v	02/09 Robin Holden	v	Mathew Martinson	v
2010												
2011												

NOTES:

f No specific health care facilities program Facilities Director position

**** From 1997 to 2001 the DFO and DFPC were Facilities Management Branch, Facilities Planning and Construction Branch and Engineering Services Branch - Dallas / Seattle in the Division of Environmental and Facilities Engineering (DFEE)

- End -

	Updated 6/24/09 14:00				
Indian Health Service - Health Care Facilities Program Managers History					
Year	Headquarters				
	Division of Facilities (Management) Operations ****	Division of Facilities Planning and Construction ****	Office of / Division of Engineering Services - Dallas ** ****	Office of / Division of Engineering Services - Seattle ** ****	Office of Engineering Services - New York **
1980					
1981					
1982					
1983					
1984			Dean Blue		
1985			v		
1986		Tom Gallegos	v	Kenneth Harper	Emilio Pucillo
1987	Tom Bedick	v	v	v	v
1988	v	v	v	v	v
1989	v	v	v	v	v
1990	v	v	v	v	v
1991	v	v	v	v	v
1992	v	Gary Radtke	Tom Gallegos	v	v
1993	Alan Peterson	v	v	v	v
1994	v	v	v	v	v
1995	Alan Peterson 5/95 5/95 Gary Radtke	v	v	v	v
1996	Gary Radtke 6/96 6/96 James Biasco	Gary Radtke 6/96 6/96 James Biasco	**	**	OES - NY transferred to HRSA **
1997	James Biasco 7/97 William Lowe	James Biasco 7/97 Jose Cuzme	v	v	
1998	v	v	v	v	
1999	v	v	Tom Gallegos 07/99 Diane Stewart	v	
2000	William Lowe 8/00 Paul Fardig	v	v	v	
2001		v	v	v	
2002		v	Tommy Bowman	v	
2003	Paul Fardig 7/03 8/03 Kevin Stover (act)	v	v	v	
2004	Kevin Stover (act) 3/04 3/04 James Biasco	v	v	v	
2005	v	v	v	v	
2006	v	v	v	v	
2007	v	v	v	v	
2008	v	v	v	v	
2009	v	v	v	v	
2010					
2011					
	NOTES:				
	1 No specific health care facilities program Facilities Director position				
	** Office of Engineering Services (OES), Seattle and Dallas, Public Health Service, were transferred to the IHS and became Division of Engineering Services - Seattle/Dallas. OES-NY transferred to HRSA. Prior to 1984 these offices were Resident Office of Facilities Engineering and Construction, ROFEC.				



INDIAN HEALTH SERVICE

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**March
2010**

