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INTRODUCTION

Preamble

950 .1.00 This Guideline is based on the Guideline for the Commissioning of Health Facilities for the Queensland Health Department prepared by GHAAP at the University of NSW. The Queensland document has been substantially altered to suit NSW Health Department requirements.

950 .2.00 This Commissioning Guideline has been prepared to assist the health facility capital planning and development of projects undertaken by NSW Health. It has been developed in line with other NSW Health Guidelines and will need to be read in conjunction with them. Refer to other sections of these Guidelines for further information regarding FF&E, Service Planning and Operational Policies.

It is expected that the principles described here will be useful for large and small projects, though the degree of structure and personnel involved will vary considerably.

Definitions

950 .3.00 COMMISSIONING

There are two types of Commissioning:

+ Building Commissioning - completion for occupation by the contractor from a physical facility point of view such as successful running of all plant and equipment. This is managed by the Project Team.

+ Operational Commissioning - the preparation of a facility and its staff for commencement of operation such as equipping and familiarising of staff with facility operation. This is managed by the Commissioning Team.

This Guideline deals primarily with Operational Commissioning.

950 .4.00 OCCUPATION

Occupation involves:

- + Preparation for the move at all management levels;
- + The physical move into the new facility;
- + Contingency plans for key items and emergency plans;
- + Defects and issues notification processes.

950 .5.00 DECOMMISSIONING

Decommissioning is the process undertaken to secure vacated premises.

The process involves:

- + Isolating and capping all mechanical, electrical and plumbing services unless required for future use on the protection of the building;
- + Ensuring that all systems are protected by draining down and making secure;
- + Taking suitable measures to prevent the entry of birds, vermin, insects and vegetation;
- + Organising disposal of unwanted items in accordance with NSW Health policies;
- + Ensuring that all access points to the area are secured, and where necessary boarded-up, barring unauthorised entry.

Objectives

950 .6.00 This document should enable planning teams to:

- + Understand the context within which the commissioning process takes place;
- + Describe the operations that will take place in every department or Unit and identify the staffing required, consistent with the recurrent budget and the business plan developed for the budget unit;
- + Describe the scope of the commissioning task and the time and activities to complete the commissioning process;
- + Describe the standards, procedures, systems and technologies to be used to achieve the commencement of operations;
- + Establish and identify ownership of the process with clear indications of roles and responsibilities of team members;
- + Describe the time and activities to complete the commissioning process;
- + Identify the management control procedures for commissioning;
- + Identify and clarify the handover and post-project evaluation procedures;
- + Undertake risk assessment and the identification of potential hazards and the required strategies to eliminate or protect against these hazards during commissioning.

Commissioning and the Process of Planning

950 .7.00 The main phases in the evolution of a new facility are: service planning, brief, design,

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construct, commission and operate.

Refer to Part B for further information regarding the NSW Process of Facility Planning (POFP).

950 .8.00 There is considerable interaction between these phases which includes planning the way the building will operate. This involves extensive consultation between users and designers, and coordination between the Project Team and the Commissioning Team. Refer to the attached Bar Chart.

950 .9.00 The first step in the planning process is preparation of the Service Plan. The Service Plan identifies the service requirements. This may result in the need to consider capital solutions to a particular service need. If so the Department will approve proceeding to the Procurement Feasibility Plan (PFP) and Project Definition Plan (PDP) phases. These describe the service-related operations and physical characteristics of the Health Care Facility, ie the project brief.

This planning is undertaken prior to commencement of commissioning and knowledge of this is essential for the Commissioning Officer. The planning documents are usually referenced in the Commissioning Plan.

The Project Team is responsible for the design and construction of the facility in accordance with the project brief, to suit the operational policies determined at the PDP stage.

The Commissioning Team should be established during the design stage of a project and should liaise with the Project Team to prepare for occupation and operation.

Following handover from the contractor, the Commissioning Team will manage the occupation and initial operation activities.

The Commissioning Team will also be involved in the formal evaluation of the facility after a period of occupation ie the Post Occupancy Evaluation.

Key Considerations

950 .10.00 Key considerations in commissioning include the following issues:

- + The process of commissioning a facility relates not only to the management of time, costs, supplies, equipment and the quality of buildings, but also to the management of people, systems and organisations to ensure that the facility is utilised effectively, and patient, staff and visitor safety is maintained.
- + Commissioning must be planned, considered and resourced as far in advance as possible, as a separate but integrated entity within the overall project;
- + Key personnel should be involved throughout the whole project if possible;
- + Appropriate resources in staff, time and support must be allocated;
- + The Commissioning Plan will be based on operational policies and the design solution;
- + Operational Policy reviews and project outcomes may require implementation of a change management strategy;
- + Commissioning requirements must be incorporated in the tender documents, for example decanting strategies and staged building works;
- + Development of an open/agreed Communication Plan and document control system is required. This plan will encompass the various reviews required through the planning and building phases that should be conducted to ensure that project is developed in accordance with the Project Definition Plan.
- + The success of a project results from the co-operation of the users and their investment in the different processes. The OHS Act 2000 requires consultation with personnel at all levels. Operational Commissioning should not be attempted without

consultation and user involvement.

Commissioning Team

950 .11.00 The Commissioning Team is a multidisciplinary team that will vary depending on the stage and size of the project. For small projects, commissioning is usually managed by one or two people, with specialist input as required. On complex projects, roles will be undertaken by separate personnel.

There are four key roles in the commissioning process:

- + Commissioning Coordinator;
- + FF&E Coordinator;
- + Commissioning Engineer;
- + Departmental Commissioning Facilitator.

The Commissioning Coordinator will develop a list of team members required, based on their experience and the input needed to commission the Health Care Facility. This team will come together very early and determine their individual roles, requirements and time frame.

The Commissioning Team must represent the interests of all users of a facility. They must be accessible and willing to listen.

Input is required with regard to:

- + Nursing needs and patient care;
- + Senior medical staff activities and interests;
- + Accepting the engineering services and implementing a planned preventative maintenance program;
- + Supply of furniture and equipment as well as consumable supplies;
- + Design and project management to ensure close contact with the contractors and advise on progress of the building work;
- + Health Department policies, procedures and procedures;
- + Administrative and secretarial assistance.

The core team members must have a good understanding of the project details and desired outcomes. It is essential that tasks are allocated to appropriate personnel and that they are adequately briefed.

The reporting structure for the Commissioning Team will follow those established for the project.

950 .12.00 COMMISSIONING ROLES

COMMISSIONING COORDINATOR:

The major role in Operational Commissioning is that of the Commissioning Coordinator which covers two main areas of responsibility:

1. Management of the Overall Commissioning Process;
2. Management of the Operational Commissioning Activities.

On most projects, one person will be responsible for both these areas. On large projects, the areas of responsibility may be split between two or more people.

These responsibilities require attention to the following main tasks:

Commissioning Team

- 950 .13.00 1. Management of the Overall Commissioning Process. The Commissioning Team will be required to:
- + Prepare and implement the Commissioning Plan for all services in conjunction with the Health Care Facility management and NSW Health;
 - + Manage the commissioning process including convening and minuting meetings;
 - + Coordinate and provide support for the departmental commissioning processes;
 - + Provide advice in regard to, representation of, and communication with the facility's management regarding commissioning activities;
 - + Program staffing needs required at the time of commissioning;
 - + Determine and manage the commissioning budget.
2. Manage the Operational Commissioning Activities:
- + Establish the FF&E program;
 - + Identify OHS hazard, risk assessment and risk elimination or control as required by legislation;
 - + Determine Staff and manage relocation;
 - + Assist with activity management;
 - + Manage the Occupation Program - including confirmation that lead times are appropriate;
 - + Define the defects liability period activities;
 - + Establish staff training programs;
 - + Determine Acceptance Criteria;
 - + Ensure operational functioning of the facility;
 - + Establish a feedback loop activity for QA;
 - + Manage the preparation and sign off of the commissioning procedures.
- 950 .14.00 Ideally this person should be involved in the project from its conception and have a clinical background. The Commissioning Coordinator will report directly, and have access to the facility's executive team. The Commissioning Coordinator is also the link between the Project Team and the Commissioning Team.
- 950 .15.00 FF&E CO-ORDINATOR:
- The FF&E Coordinator is usually a separate person to the Commissioning Coordinator, and should have purchasing experience.
- The FF&E Co-ordinator will be required to:
- + Ensure that equipment specifications for the whole project are consistent with user group requirements;
 - + Coordinate OHS assessments of new equipment in consultation with end users;
 - + Establish lead times for delivery of major items, tendering requirements, responsibilities and contract arrangements;
 - + Order FF&E and organising delivery, storage and installation;

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- + Establish evaluation criteria for its acceptance;
- + Ensure consistency between what was planned for all spaces and what is ordered;
- + Ensure that any alternatives offered by the builder are reviewed against user evaluation criteria;
- + Ensure patient interface samples submitted by the builder are signed off;
- + Manage the provision of manuals and scheduling training for staff using the equipment.

The FF&E Coordinator reports to and is managed by the Commissioning Coordinator. Refer also to FF&E Guideline.

950 .16.00 COMMISSIONING ENGINEER:

The role of the Commissioning Engineer is to become familiar with all the building services provided in the new facility.

The Engineer will then be required to:

- + Carry out regular surveillance inspections in order to deal with issues or problems being experienced by other staff in critical or other areas;
- + Support the Commissioning Team in the occupation process;
- + Develop emergency policies and procedures for services for implementation upon occupation;
- + Plan for training and handover of plans and manuals etc;
- + Coordinate asset management documentation and processes for servicing, etc.

This role is usually undertaken by the Hospital Engineer.

950 .17.00 DEPARTMENTAL COMMISSIONING FACILITATOR:

The role of the Departmental Commissioning Facilitator is usually undertaken at the departmental level. The Facilitator will be required to:

- + Develop a programme that will identify the duration of moves, establish interdependencies, identify dates of occupation and determine the duration of de-commissioning;
- + Establish departmental schedules for FF&E;
- + Prepare records for patient transfers;
- + Organise and arrange staff site inspections and plan staff training;
- + Prepare and monitor departmental activity check lists.

Commissioning Tasks

950 .18.00 GENERAL TASKS

The main tasks in commissioning may be undertaken by one or more officers assigned with the delegated authority. Some of these tasks may be replicated from existing systems. They include to:

- + Establish the Commissioning Team - membership, roles, responsibilities and authorities, reporting;
- + Review the planning documents including the PDP, policies and procedures for the

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whole of service/facility as well as for the individual departments to determine, document and agree to the changes since sign-off and the processes for implementing the changes;

- + Develop a plan for the commissioning and occupation of the new building or areas;
- + Program the commissioning process for each main department or unit;
- + Manage equipment selection, trials, OHS assessment, procurement, delivery, storage, installation, testing, training and establish inventories - order times must be coordinated with the building programme to ensure that storage time is as short as possible, and that storage space is available;
- + Develop operational policies and procedures for the facility and groups of departments or functions, as a continuation of briefing and coordinated with services plans, so that all Commissioning personnel understand how the new facility is intended to function;
- + Determine job specifications and descriptions, and arrive at a detailed staff establishment;
- + Take over the building from the contractor, commence the maintenance program, effect insurances and establish security arrangements;
- + Ensure that the building contract has been carried out properly in accordance with the agreed design;
- + Participate in the process of defects identification and rectification;
- + Manage acceptance and operational testing of installations;
- + Work out documentation procedures, design and order stationery and processing equipment;
- + Obtain necessary licenses, certification and other statutory approvals and documentation;
- + Work out final details of supply systems and arrange supply and disposal contracts;
- + Develop emergency procedures for fire, explosion, disasters etc;
- + Prepare staff for occupation including orientation, recruitment and training;
- + Manage the process of occupation including relocation and decommissioning;
- + Organise and hold opening ceremony;
- + Start work, ie accept patients and initiate supporting services;
- + Monitor initial operation.

950 .19.00 TASKS UNDERTAKEN JOINTLY WITH PROJECT TEAM

In coordination with the Design and Construction Team the Project Team is also required to:

- + Provide signage such as directional and information signs. Refer to Part C of these Guidelines;
- + Determine a system for Room Identification - this may be different from the one used during construction and may be altered to suit operational policies or asset management systems; this should be resolved early to assist with placing equipment and defects management;
- + Establish security systems including keying electronic access control systems (including lifts), CCTV systems, duress alarms, patient wandering systems and alarm management and responses;

- + Selection of interior design elements including artwork, fabrics, window treatment, privacy screens, paint colours, floor coverings, furniture types.

Commissioning Plan

950 .20.00 INTRODUCTION

The Commissioning Plan provides a framework within which the process and activities of commissioning are determined.

These activities must be properly planned.

950 .21.00 CONTENT

The Commissioning Plan should address the following:

- + Physical Activities Programme - the identification, sequence and duration of all activities required to bring a Health Care Facility into operation. It should include post-occupancy activities. It is closely linked to the building programme and must be regularly reviewed and updated;
- + The time line, milestones and critical path from this programme are the key information required throughout the operational commissioning process. In many cases contingencies are required if milestones are not met. Communication is essential;
- + Organisational & management structure - outlining the activities required to make the Health Care Facility operational, and responsibilities for planning and commissioning activities. Responsibilities and coordination processes are established;
- + Operational Policies - detailed policies and procedures for the facility as a whole and for each department as it is expected to operate at the date of occupation. Policies outlined in the PDP shall be reviewed;
- + Human Resources strategies - including staffing estimates; appointments; transfers; recruitment; deployment and training. It includes staff orientation, OHS and industrial relations issues;
- + Communication Plan - this should follow the project planning / commissioning team structure and include frequency, content and form of communications, contact lists and processes, external agencies and community liaison / profiling etc. There may be a number of sub-plans dependent on the target audience;
- + Furniture, Fittings and Equipment activities - includes trials, OHS assessments, user investigation, source of funding, capital budget allocations, scheduling, purchasing, commissioning, training & documentation;
- + Occupation activities - includes cleaning, testing, fitout, occupation by staff and patients, relocation activities, stocking and commencement of operations;
- + Decommissioning of previous facilities;
- + Budget allocations - addressing both capital and recurrent budgets. This will identify what will be purchased from which budget; an agreed allocation of funds from the capital budget for FF&E; the breakdown per various departments; organisational-wide budget allocations eg signage, window treatments, artworks, landscaping, contingency and cash flows;
- + Risk Management - identifying major potential risks, establish contingencies, identify what will be done to minimise the risk of disruption occurring and nominate possible actions for correction.

The extent of documentation will vary with the complexity of the project.

Commissioning Program

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950 .22.00 Programming is fundamental to successful commissioning. This role shall be assigned to a member of the Commissioning Team. A specialist programmer may be appointed for complex projects.

950 .23.00 PROGRAMMING CONSIDERATIONS

The team's first task is to determine what has to be done and in what time frame.

The commissioning program must be coordinated with the construction program. An accurate and detailed timetable is required showing the sequence of activities and the critical path.

The communication strategy for the Commissioning Team should be developed and implemented so that all members of the project and commissioning teams are informed of project requirements and work to the same timetable.

Program dates should be achievable and have sufficient contingencies to allow the facility to open on the planned date. Changes to the program must be identified and appropriate action taken.

Operational Policies and Procedures

950 .24.00 DEFINITION

Refer to Part B of these Guidelines for a discussion of the Relationship of Operational Policies to the Facility Design Process.

Operational policies must be established for the whole facility.

Operational policies can be defined as a statement of the objectives and the principal functions for each department. They outline the eventual operational system for the department.

Operational policies will determine what equipment should be obtained, how each staff member will be deployed, and what standard of service will be provided to patients. Significantly, they will also affect the running costs of the facility, and will clarify managerial responsibility.

950 .25.00 OPERATIONAL CHANGE

New developments provide the opportunity to introduce operational changes. This may vary from changes to development of new operational procedures in one department or unit to implementation of significant new management approaches.

There may be considerable resistance to this change from some existing personnel. Therefore change must be carefully planned, documented and its implementation managed.

950 .26.00 REVIEW OF OPERATIONAL POLICIES

The Health Care Facility will have been designed and constructed to suit expected operational policies determined at the briefing stage.

The original assumptions about how a service was to be managed and function may have changed during subsequent stages. The commissioning team must document and review all of the operating expectations.

Where possible, those personnel involved in the development of these policies should be involved as part of the commissioning team.

The implications of changes may require adjustment to construction, staffing or budgets.

Once a facility opens, there must be an embargo on physical changes to design for a period of 12 months, except where obvious errors or unacceptable risks are evident. After this period, a review of the effectiveness of operational systems can be

undertaken.

950 .27.00 WHOLE HOSPITAL POLICIES

Whole hospital policies are system wide policies that describe the operation of a facility as a whole. These are usually part of an overall Area approach, are multi-departmental concerns and usually require decisions from a management team having a wide representation.

These policies form the framework of the facility's organisation within which the working of each department can be defined. These include:

- + Facilities Management;
- + Supply services;
- + Catering;
- + Domestic service;
- + Laundry, linen and uniforms;
- + Public relations;
- + IT and communication systems;
- + Transport - both internal and external;
- + Personnel and human resources.

950 .28.00 DEPARTMENTAL POLICIES

Departmental Policies include:

- + Philosophy of the service - eg the model of care, the functions and the relationship to standards;
- + Utilisation - services provided;
- + Design considerations;
- + Internal departmental flows - goods and people;
- + Applicability of whole hospital policies.

950 .30.00 OCCUPATIONAL HEALTH AND SAFETY

Refer to Part C of these Guidelines.

The OHS Act has implications for the consultation processes undertaken during operational commissioning (including policy and procedure development).

Any OHS risks associated with commissioning or decommissioning, eg security, noise, dust control, asbestos removal, manual handling, must be identified, assessed, eliminated or controlled.

Documentation During Commissioning.

950 .31.00 DOCUMENTING POLICY AND PROCEDURES MANUALS

The Operational Procedure and Policy Manuals will reflect best practice and should be consistent with the other facility documentation to become part of the Quality Assurance documentation. This will also ensure a commitment to using and maintaining the documents as changes in policy occur.

Good documentation enables procedures and policies to be consistently implemented over time and with changing personnel.

950 .32.00 Procedures and policies should take into account that the physical arrangement of Health Care Facilities may not correspond to management structures. This may also impact on commissioning processes.

950 .33.00 USING THE WORKING GROUPS

Policies and procedures should be developed in conjunction with working parties representing each department or Functional Unit. These policies and procedures may require endorsement by the Commissioning Team and senior management may need to determine matters of policy.

950 .34.00 PROCEDURES MANUAL OUTLINE

A Procedures Manual should include:

- + A brief summary of the original (or revised) Operational Policy;
- + An outline of the main functions of the department, including where appropriate:
 - Services to be provided, including any specialised work;
 - Normal hours of work;
 - On-call and emergency arrangements;
 - Predicted workload and target standards;
 - Specialised items of equipment, where these have a large impact on the main functions of the department;
 - Services which will be provided by other facilities.
- + Organisational structure, including lines of accountability within the hospital as a whole as well as within the department;
- + Costed staffing structure;
 - Proposed grading and numbers of staff (managerial, supervisory and operational);
 - Proposed deployment of staff over each shift;
 - Other staff requirements.

Note: for large departments, it may be preferable to show the staffing structure as an appendix to the manual.

- + Budgetary arrangements; showing an outline of the main components of the department's budget;
- + Relationships with other departments;
- + Departmental information systems for collecting information about patients, staff or finance and the software systems to be used - generally whole of facility policies and include consideration of:
 - Use of Picture Archiving Communication System (PACS);
 - 'Paperless' approach;
 - Telecommunications;
 - Methods of staff and patient education;

- Security of information;
- Roles and responsibilities for staff using these information systems;
- Training needs;
- Management systems.

950 .35.00 ISSUE OF MANUALS

Manuals should be published as the policies are developed. Additions and alterations will be inevitable as operational systems are never static.

950 .36.00 USING THE MANUALS

A large number of manuals will be produced, representing a substantial investment in time and resources. These should cover all management and departmental systems.

These manuals will form the basis for training staff to operate the hospital as it has been planned.

They will include instructions for operating equipment, and health and safety procedures.

The Commissioning Team must program and manage production of the manuals. The implementation of these will impact on the efficiency of the hospital and the satisfaction of its staff and its first patients.

Staffing Strategies

950 .37.00 ASSESSMENT OF REQUIREMENTS

The planning of new facilities and assessment of recurrent costs including staffing, is made at PFP and PDP stages. This is a considerable length of time ahead of actual occupation.

A review of this and assessment of staffing requirements at the occupation date needs to be undertaken as part of the Commissioning Plan.

In assessing the staffing establishment for a facility, it is important to consider the operational management structure as a whole and then look at staff deployment.

Calculations of staffing requirements should be as accurate as possible for the Commissioning review. This involves relating workload and patient dependencies to the actual numbers and categories of staff required compared with the funding available.

Different strategies will be required depending on the outcome of the staffing review. These may include issues of staff retention, recruitment, orientation and training.

950 .38.00 CONSIDERATIONS

New staff recruitment and training, existing staff reorientation and in-service education should be undertaken well in advance of the intended occupation date.

Close liaison with counselling services and support for key staff in their working groups, will be essential to manage change.

A new development can lead to staff insecurity. The personnel policy must be determined as early as possible.

Staff must be kept informed on all aspects of a project and the effect of the project on them personally. This can be undertaken through discussions and news bulletins.

Adequate support for staff during operational change must be provided.

Issues of industrial relations, OHS and matters of redeployment and retraining must be addressed and resolved.

The recruitment of staff needs to consider:

- + Recruitment procedures required;
- + The availability of potential staff;
- + Time taken to fill positions.

Furniture, Fittings and Equipment

950 .39.00 The equipping process is outlined in the separate Furniture, Fittings and Equipment Guideline.

Bringing the New Building into Use

950 .40.00 PLANNING

Detailed commissioning plans must be developed for each department or area within a facility. The plans are developed in consultation with the end user managers and providers of support services. The plans will be based on the day-to-day activities, tasks and roles of all personnel involved in the department and required to bring it into operation.

The Commissioning Team and other relevant personnel should review the Commissioning Plan prior to occupation on a weekly or even daily basis. The occupation program must be committed to and signed off.

950 .41.00 OCCUPATION

At occupation, all key supervisory staff should be appointed, initiated and instructed in the working methods to be adopted, then briefed on their implementation.

The progression from occupation to operation requires a considerable amount of planning and work. The time required will vary according to the size and nature of the facility. Sufficient time must be allowed for trial runs and overcoming inevitable challenges.

Operational managers should be aware of and involved in attending to items outstanding at handover.

Staffing strategies must be in place.

Furniture, fittings and equipment should be on site ready for placement.

Arrangements should be made for supply of consumables.

The facility must be cleaned to a standard fit for operation. This is usually a higher standard than the Builder's clean at handover.

Required testing of services and for contamination must be undertaken.

Public Relations

950 .42.00 COMMUNICATIONS PLAN

Development of a new facility will generate a degree of interest in the community and among staff. Closure of existing facilities may create negative reactions. Provision of an effective Communications Plan and public relations strategy is an important part of the commissioning process. This may be managed by the Commissioning Co-

ordinator or by specialist Public Relations personnel.

Communications with the staff is equally important. Staff are significant players in what is presented to the public. They should be routinely given correct information about the project, which is consistent with that being provided to the public. Site visits may be arranged.

950 .43.00 STRATEGIES

The aim should be to build up local interest in the new project to a peak to coincide with opening day. Publicity may include suitable articles and photos published in the local and national press, talks to local societies and organisations, exhibitions of plans and models of the new buildings.

Public awareness can be stimulated by open days, held once equipment and furniture are in place. A descriptive leaflet or brochure can be produced describing the services to be offered to the community and how they should be accessed.

Publicity activities should be programmed to coincide with key milestones in a project such as:

- + The announcement of approval to proceed;
- + Turning of the first sod;
- + Topping out of the building;
- + The handover of the building;
- + The official opening.

Close contact should be made and maintained with interested professional bodies, local authority services, and local medical organisations. This may also help with staff recruitment. General practitioners should be encouraged to participate in activities of the facility. The help of voluntary services may also be enlisted. There will be a range of individuals, community service organisations and special interest groups that have direct involvement with the facility and they need to be kept informed of progress and changes of service. It is important to list these to ensure that a structured information flow is maintained.

Information being prepared and released must be correct and consistent. Policies for image, graphics, and the written style should be established. Contradictory or other negative information must be avoided. If there is doubt about some issue, or a choice is yet to be made, this should be made clear.

Where previously published information changes or is updated, this should also be publicised as widely as possible.

950 .44.00 OPENING CEREMONY

The timing of the opening ceremony needs to be considered. Holding it prior to occupation of the facility allows the media, staff and visiting dignitaries to see the area without disrupting the operation of the Unit or privacy of the patients.

Timing the ceremony for after commencement of operations allows the guests and dignitaries to see the facility in operation and to meet patients. The date should be fixed well in advance, particularly if it is intended to invite a VIP to perform the ceremony.

An appropriate budget should be established, any special arrangements made and approvals obtained eg traffic changes such as road closures.

Risk Analysis and Management

950 .45.00 GENERAL

Risk Management strategies should be included in both the Commissioning Plan and

timetable. They should be developed in consultation with the project team, contractor, end users of the facility and other support personnel.

950 .46.00 TYPES OF RISKS

Many health care organisations are concerned with the potential financial impact from risks associated with the development of a new facility. Documentation of a Risk Strategy should reflect the risk assessment developed at the preliminary planning stages.

Consideration should have been given to the financial risks resulting from a 'poor investment' regarding the project as a whole, through the procedures involved in evaluation of the PFP. There is also an evaluation of the risks associated with poor contractor performance and claims related to such things as errors and omissions, delays etc, during the design and construction phases. These are covered using normal construction and project management procedures.

Commissioning risks include:

- + Cost over-runs for the commissioning itself;
- + Excessive budget allowances for recurrent costs after opening;
- + Legislative changes that impact on staffing or operations, public liabilities etc;
- + Failure in design, which might affect Occupational Health and Safety matters, patient safety etc;
- + Poorly developed Operational Procedures that lead to problems with infection control, patient safety etc.

950 .47.00 MANAGING RISKS

The aim of the Risk Management Strategy is to identify the areas of potential risk and to prepare a plan of action for addressing these. Often the very act of doing this can prevent a risk being realised. The Strategy will be revised as new risks become evident and earlier risks eliminated. The Commissioning Team members should be aware of how to report potential risks and should be encouraged to report potential risks even if they are not likely to occur immediately.

Legal implications, which could arise from the proposed work practices for a facility, can be reduced by using the opportunity of a new development to review all policies and procedures and to use the Operational Procedures documentation to provide a basis for assessing risk. A 'legal audit' can provide a comprehensive assessment of risk.

OHS Regulation requires OHS hazard identification, risk assessment and risk elimination or control. Local actions such as conducting ergonomic evaluations of specific work spaces and simple corrections can reduce claims by staff for injury.

Post Occupancy Evaluation (POE)

950 .48.00 GENERAL

Refer to separate Post Occupancy Evaluation Guideline.

Evaluation of the operation of the facility in relation to the original brief, the planning policies and the design helps identify both successes and deficiencies in the building and its operational systems and provides valuable feedback for future projects. A POE is not an exercise in fault finding. It is a recognition that many decisions have been made along the way to the completed facility with varying success.

950 .49.00 OUTCOMES

A POE study should reveal:

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- + Deficiencies in the design that can be remedied fairly easily;
- + Where previously accepted design principles are giving trouble in practice;
- + Design features that have proved to be expensive in terms of running costs;
- + Where accepted design principles are working well.

950 .50.00 USE OF RESULTS

The results of a POE will be used to:

- + Reassess the design principles and space provision proposed in the Health Facility Guidelines;
- + Identify issues that require further research or expert input;
- + Promote clearly successful solutions in future projects;
- + Avoid expensive errors or mistakes that compromise functionality or efficiency in capital works projects.

PLANNING

Operational Policies and Procedures

950 .29.00 DEPARTMENTAL PROCEDURES

Departmental procedures describe the way an individual department will operate. The activities of one department may impact on other departments. This must be addressed in the procedures.

Successful implementation of procedures requires acceptance and commitment from all affected personnel. This can be achieved through consultation and involvement in their preparation.

Glossary of Terms

950 .51.00 The following section provides definitions for some key terms used in this Guideline.

ACTIVITIES PROGRAMME

Displays the complete time frame of the project and the relocations of the departments in a staged strategy.

This may also be displayed in the form of a Gantt Chart and identifies, in sequential order, the relocation of departments and the 'lead time' allocated.

COMMISSIONING

The term used to describe the preparation of a building, plant, equipment and personnel to a state of readiness for occupation and operational use.

COMMISSIONING STRATEGY

Describes all the activities that must be planned for the complete process of commissioning.

DATE OF TRANSFER

The actual date that a department will move into the new building.

DECOMMISSIONING

The process undertaken to secure vacated premises.

COMMISSIONING LEAD TIME

The period of time required, between the handover of the building to the hospital by the Contractor, and the date of occupation.

OPERATIONAL STRATEGY

The term Operational Strategy has two components.

+ The Services Plan - describes the services to be provided on a State or area wide basis;

+ The Development Plan - describes the service related operations and capital characteristics of the facility.

DEFECTS LIABILITY PERIOD

Period of time from occupancy during which time faults / defects in the building or fixtures are identified, reported and repaired by the contractor.

PRACTICAL COMPLETION AND HANDOVER

The date of handover of the building or part of the building to the hospital by the contractor and from which point the defects liability period starts.

References and Further Reading

950 .52.00 Capital Works Guideline - Capital Works & Assets Management Branch, Asset Management Unit, Queensland Health, 1997.

Asset Management: Facility Condition Workbooks, Capital Works & Assets Management Branch, Asset Management Unit, Queensland Health, 1998.

Guideline on the Commissioning of Health Care Facilities for the Queensland Health Department, GHAAP, UNSW, 2003.

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DS1 Process of Facility Planning Manual, Capital Works Branch, NSW Health Department, 1993.

Rebuilding Queensland, Performance Management and Organisational Development Branches, Queensland Health Department, 1997.

Operational Commissioning Strategy - A Manager's Guide, Health Facilities Note 06, NHS Estates, London, 1995.

950 .52.00 Capital Works Guideline (1997) Capital Works & Assets Management Branch, Asset Management Unit, Queensland Health Department, Brisbane.

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Operational Commissioning Strategy - A Manager's Guide (1995) NHS Estates, Health Facilities Note 06, London, HMSO.

Checklists

950 .53.00 A List of Activities for Inclusion in a Commissioning Plan is included as an attachment to this document.

Sequence of Activities

950 .54.00 A Matrix outlining a sequence of activities for commissioning is attached to this document. It is a simplified version of a British approach to commissioning and sets out the timing and sequence of activities. It assumes a large project, with a high degree of complexity and a 2-3 year period of building construction. A phased handover of some facilities such as mechanical plant is incorporated.

The work involved is divided into seven 'streams':

1. Planning and building;
2. Management;
3. Equipping;
4. Staffing and training;
5. Operational methods;
6. Phasing;
7. Public relations.

Part F – Project Implementation

OPERATIONAL COMMISSIONING – SEQUENCE OF ACTIVITIES

| Stream Time | 1. PLANNING AND BUILDING | 2. MANAGEMENT | 3. EQUIPPING | 4. STAFFING AND TRAINING | 5. OPERATIONAL METHODS | 6. PHASING | 7. PUBLIC RELATIONS | Time |
|--------------|--|--|---|--|---|--|--|--------------|
| 3yrs | Briefing and Design Period Requirements Site Selection Development Plan Drawings & Specs Tenders & Contract Building starts | Business Case Operational policies Recurrent cost estimate Staffing establishment Equipment policies | Preliminary equipment lists and costs Room data sheets | Appoint hospital engineer as site engineer | Development operational principles and policies in conjunction with building and equipment design | Commission engineering services progressively during construction | Project described in press | 3yrs |
| 2yrs | Building in hand | Equipping initiated Commissioning team appointed Administrator appointed DON appointed | Detailed equipment lists and costs Equipment selection or design Obtain quotation | Establish nurse training program | | | Community consultation meetings and news bulletins on activities | 2yrs |
| 1yr | Hand over engineering plant | Project team briefs commissioning team Approve staff numbers Approve equipment costs | Initiate orders and receive equipment for early phases | Prepare induction and training courses Appoint CSSD supervisor, assistant administrator and assistant director of nursing | Initiate detailed operational policies as basis for operational manuals and induction courses | Boiler plant working | Progress reports in local press Exhibition of plans and models | 1yr |
| ½ yr | Hand over some office accommodation for temporary offices Hand over temporary storage area Snag lists | Initiate medical staff appointments Review program for hand-over (transfer) date | Continue orders for later phases Store equipment as necessary Complete equipment ordering | Prepare staff appointment program Prepare advertisements Appoint department heads Initiate training programs | Review stationery and form design 1 st editions of operational manuals | Temporary feeding arrangements Temporary equipment store in use | Progress reports in local press Plan publicity Initiate descriptive brochure | ½yr |
| ¼yr | CONTRACT COMPLETION HAND-OVER MAIN BUILDINGS | Plan initial cleaning program | Equipment deliveries completed Equipment labeling and placing | All department heads in post Appoint portaging staff | Initial cleaning programs initiated | Occupancy of departments start | Initiate recruitment publicity campaign Initiate planning for official opening | ¼yr |
| 1mnth | Start of defects period | | Equipment tests and demonstrations Equipping complete Start issuing stores | Appoint nurses and nursing auxiliaries | Initial cleaning completed Complete and publish operational manual addenda | All departments occupied | Appoint publicity officer Plan arrangements for visits | 1mnth |
| TRANSFER day | | Inform outside authorities Trial runs Dedication | | Appoint medical officers Complete appointment of ancillary staff Review establishment | | All supporting departs in operation. 1 st Ward opens. | Open day or days Local and national press viewing | TRANSFER day |
| 6mnth | Defects schedule Final completion | Evaluate commissioning programs | Equipment evaluation | Continuation courses | Evaluate operational policies | Wards opened progressively | Official opening (at least 8 weeks after 'T' day) | 6mnth |

Part F – Project Implementation

ACTIVITIES FOR INCLUSION IN A COMMISSIONING PLAN

A. MANAGEMENT AND PROGRAMMING

1. Prepare commissioning program.
2. Integrate with construction program.
3. Consider need for early availability of sections of the new building eg residential accommodation, supply centre, space for storage of equipment etc., in time to include instructions in the building contract.
4. Coordinate provision of off-site services.
5. Coordinate various commissioning 'streams':
 - 5.1 Operational procedures;
 - 5.2 Staffing;
 - 5.3 Equipping;
 - 5.4 Public relations;
 - 5.5 Engineering services;
 - 5.6 Opening ceremony;
 - 5.7 Cost control.
6. Prepare detailed timetable for movement of equipment, staff and patients into the new building and coordinate with associated activities.
7. Inaugurate supporting and primary services:
 - 7.1 Engineering;
 - 7.2 Cleaning;
 - 7.3 Supply and disposal;
 - 7.4 Catering;
 - 7.5 Clinical.
8. Trial runs.
9. Receive patients.

B. OPERATIONAL PROCEDURES

1. Discuss operational policies with project team:
 - 1.1 Clinical services;
 - 1.2 Hotel services;
 - 1.3 Engineering services.
2. Develop operational policies and prepare detailed operational procedures and methods of working.
3. Prepare procedure manuals for staff training, planned preventative maintenance etc.
4. Advise on selection of equipment.
5. Coordinate procedures with general practitioners and other local authority services as appropriate. Build up integrated hospital and domiciliary services.
6. Prepare initial cleaning program.
7. Induction of supervisory staff.
8. Inaugurate planned operational procedures.

C. STAFFING

1. Review provisional estimates with regard to revenue costs.
2. Prepare recruitment program.
3. Submit proposals to health authority.
4. Finalise appointment program.
5. Prepare training, reorientation and 'back to nursing' courses, in liaison with local authorities and organisations.
6. Consult with labour/industry and productivity departments and trade unions as necessary.
2. Appoint supervisory staff and arrange induction course.
3. Appoint and train other staff according to program.

D. EQUIPPING

1. Check preliminary equipment list and estimate cost.

Part F – Project Implementation

- 2.
3. Assess existing equipment available for transfer.
4. Revise list and specify new equipment to meet detailed operational procedures.
5. Conduct OHS Assessments of new equipment in consultation with potential end users representatives.
6. Consider means of variety reduction of equipment types and models.
7. Obtain comparative quotations for equipment types.
8. Select equipment types.
9. Submit proposals to health authority for approval.
10. Place equipment orders.
11. Receive, check, label and store equipment.
12. Arrange equipment maintenance contracts.
13. Arrange supplies contracts - types, quantities, delivery.
14. Distribute equipment to places of use.
15. Test equipment in position where necessary.
16. Prepare inventories of final equipment placements.

E. PUBLIC RELATIONS

1. Press reports, infrequent at first building up to maximum publicity for recruitment.
2. Arrange talks to local societies, schools etc.
3. Prepare descriptive brochure.
4. Staff recruitment drive.
5. Exhibition of plans and model.
6. Open days for public viewing.
7. Organise arrangements for group visits.
8. National and local press days.
9. Official opening (post-transfer of patients).

F. PROGRAMMED TRANSFER FROM OLD INTO NEW BUILDING

1. Finalise plans for phased handover, if any.
2. Programmed build-up of off-sited services.
3. Assess and program run-down of 'old' inpatients prior to move.
4. Program phased transfer, security requirements, and removal arrangements.
5. Assess need for additional (temporary) staff during phased transfer.
6. Review and program future use of vacated buildings.
7. Organise temporary communications to maintain services (if needed).
8. Assess need for suspension of outpatients clinics (1 day).
9. Transfer inpatients.
10. Resume normal service from new hospital.