RAMSAY
HEALTH CARE

Kareena Private Hospital

WASTE and ENVIRONMENTAL AUDIT and SUSTAINABILITY PLAN

Mission Statement

Ramsay Health Care is committed to reducing the impacts of operating our businesses on our global environment. We recognise the importance of acting responsibly on issues of waste generation, environmental impacts, and working towards sustainability.

April 2007

Table of Contents

Section 1: INTRODUCTION

The Environmental and Sustainability Plan describes the current policies and procedures for Kareena Private Hospital. It documents our goals & targets to ensure ongoing improvements in all aspects of

- eliminating unnecessary waste, including the generation, handling, storage and disposal of all forms of waste,
- reducing energy consumption,
- water efficiency management, and
- Complying with regulations and standards.

1.1 Aims

- To protect public health and safety.
- To provide a safe work environment
- To meet community expectations.
- To minimize the environmental impact of waste generation, energy consumption and water useage
- Reduce waste handling & disposal volumes/costs without compromising health care.

1.2 Objectives

- To adopt, implement and communicate the facilities Environmental and Sustainability Plan to the workforce.
- To review the Environmental and Sustainability Plan at least annually.
- Adopt a waste minimization policy, which incorporates realistic purchasing guidelines.
- Develop concise waste segregation principles and promote practical guidelines for re-usable products.
- Foster commitment from all staff and management to actively participate in waste avoidance, reduction, reuse and recycling programs.
- Introduce a continuing waste management education program for all staff to increase awareness of Workplace Health & Safety issues and waste minimisation principles.

.

Section 2: DEFINITIONS

Hospital Waste can be divided into the following categories:

2.1 Clinical waste

Clinical waste is waste which has the potential to cause sharps injury, infection or offence. When packaged and disposed of appropriately, there is virtually no public health significance. Clinical waste contains the following:

- sharps[1];
- human tissue (excluding hair, teeth and nails);
- bulk body fluids and blood;[2]
- visibly blood stained body fluids and visibly blood stained disposable material and equipment;
- laboratory specimens and cultures;

2.2 Cytotoxic Waste

Cytotoxic waste means material contaminated with residues or preparations containing materials toxic to cells, principally through action on cell reproduction. This includes any residual cytotoxic drug, and any discarded material associated with the preparation or administration of cytotoxic drugs.

2.3 Pharmaceutical Waste

Consists of pharmaceuticals or other chemical substances, specified in the Poisons List under the Poisons and Therapeutic Goods Act 1966. Pharmaceutical substances include expired or discarded pharmaceuticals, filters or other materials contaminated by pharmaceutical products.

2.4 Chemical Waste

Chemical waste is generated from the use of chemicals in medical applications, domestic services, maintenance, laboratories, during sterilization processes and research. It includes mercury, cyanide, azide, formalin, and glutaraldehyde, which are subject to special disposal requirements. Chemical wastes included in the Dangerous Goods Regulations and Poisons and Therapeutic Goods Act are also included in this stream.

2.5 Recyclable Products

Items which are composed of materials or components, capable of being remanufactured, or reused. Items are considered recyclable if there are procedures available to collect and reprocess them.

2.6 Organic Products

This includes wood, garden waste, food and vegetable scraps and natural fibrous material which are biodegradable.

2.7 Liquid Waste

Liquid wastes are defined in the Waste Regulation. These wastes include grease trap waste, used lubricating oil and waste normally discharged to the sewer.

---

1 Sharps: Any object capable of inflicting a penetrating injury, which may or may not be contaminated with blood and/or body substances. This includes needles and any other sharp objects or instruments designed to perform penetrating procedures.

2 Bulk: Free flowing liquids normally contained within a disposable vessel or tubing, not capable of being safely drained to the sewer.

2.8 General Waste

Any waste not included above and which is not capable of being composted, recycled, reprocessed or reused. This stream includes incontinence pads, sanitary waste and disposable nappies.

Kareena Private Hospital has a total of 128 beds comprising of the following specialties:

Medical	30
Surgical	45
ICU / HDU	4
Obstetrics / Women's Health	22
Day Surgery	19
Special Care Nursery	5
Coronary Care	5
Accident & Emergency	6 trolleys
Occupied Bed Days:	90%
Total Staff:	450
Director of Hospital	Sue Panuccio
Director of Nursing	Indra Wijetundra

Section 3: RESPONSIBILIITES

3.1 Employer's Legal responsibilities

Employers have a number of legal responsibilities which include:

- developing and maintaining a safe work environment and safe work practices;
- ensuring hospital activities do not breach environmental standards prescribed in the State and Federal legislation;
- Providing staff training and education for the safe handling of all hospital waste categories.

3.2 Employees Responsibilities

Employees also have responsibilities to:

- Comply with facility safety policies and procedures, and utilizing facility safe work practices for their own protection and for the protection other staff and the public.
- Actively support facility environmental initiatives
- Be aware and comply with the requirements for the handling of chemical substances according to Material Safety Data Sheets (MSDS).

3.3 Resource Efficiency Committee

A committee has been established to oversee the development and implementation of waste and environment initiatives within the facility.

Table 1: ***Terms of Reference***

PURPOSE	To identify opportunities to: ▪ Reduce or eliminate waste ▪ Enhance resource conservation – limiting our use of raw materials and non-renewable resources ▪ reducing energy (all forms) consumption ▪ improving water efficiency management ▪ monitoring, reporting and reducing emissions of all pollutants ▪ evaluating whole of life savings of investing in new buildings and plant infrastructure ▪ complying with regulations and standards
FUNCTIONS	▪ Accelerate KPH environmental strategy through prioritising and allocating existing time to environmental projects ▪ Systematically addressing environmental compliance ▪ Integrating environmental strategies with good business planning ▪ Lower costs through more efficient use of resources and reduced waste ▪ Supply Chain Management ▪ Actively engage employees in the process ▪ To develop, implement, monitor and review a Waste Management Plan throughout the hospital ▪ To ensure the compliance with regulations and standards are met ▪ Adopt policies and procedures to minimise environmental impact
REPORTING STRUCTURE & PROCESS	Provides regular feedback to the Executive Management Committee
SUB COMMITTEES	Nil
CHAIR	Environmental Services Manager
DEPUTY CHAIR	NUM Endeavour
MEMBERSHIP	OHS Coordinator Finance Manager Environmental Services Manager Maintenance Manager Theatre Representative Clinical Representative Administration representative The committee may co-opt any other relevant personnel to address specific issues as deemed relevant by the Resource Efficiency Committee.
QUORUM	3
SECRETARY	Nominated member of Committee on rotational basis. Minutes to be forwarded to Infection Control Co-Ord at end of the meeting
FREQUENCY OF MEETINGS	Bi-monthly
FORMULATED	Feb 2008
LAST REVISED	Feb 2008

3.4 Licensing Requirements

No longer required – refer to licence folder

3.5 Education and Training

Kareena Private Hospital recognizes its responsibility to provide appropriate education, training and supervision to its employees to maximize their knowledge of hazards they may encounter in their workplace, and communicate facility requirements and procedures that assist them to undertake and perform their work in a safe manner.

This is achieved by the following:

- Regularly scheduled orientation courses for new employees
- Ongoing education for existing employees, at all levels (including senior management), utilizing differing formats and mediums.
- Ongoing publicity campaigns.

Education and training is delivered to employees by a range of qualified and relevant personnel. These include but are not limited to:

- Safety Manager
- Infection Control – internal, and external to the facility personnel
- Facility clinical educators
- Relevant Service Providers

A register of course attendances is held on the staff data base.

The following Environmental and Sustainability topics are covered in the Safety and Infection Control education sessions and also incorporated in the infection control booklet.

- Safe work practices
- Polices and Procedures related to waste
- Legislation
- Provision and safe use of PPE
- Infection Control and Hygiene procedures
- Waste stream definitions
- Costs and benefits of waste minimization
- Reduce/reuse/recycle
- First aid / needle stick injury
- Spill management
- Manual handling
- Environmental impacts of waste disposal

Ongoing publicity campaigns incorporate the principals of the Environmental and Sustainability Plan through:

- posters
- brochures
- newsletters
- e-mail message communication

Section 4: WASTE MINIMISATION

4 (a) -- Waste Management Strategies

Our facility uses an integrated waste management program incorporating the waste hierarchy approach, which is designed to minimize the total volume of waste going to landfill.

The waste hierarchy is a list of approaches to managing waste, arranged in order of preferability:

- strategies which try to avoid products becoming waste are generally preferable to;
- strategies which seek to find a use for waste, which are in turn generally preferable to;
- strategies for disposal, whish should be used as a last resort.

4.1.1 Waste Avoidance and Minimisation:

Avoidance initiatives at Kareena Private Hospital have been incorporated into the facilities Environmental and Sustainability Plan Objectives, and the Purchasing Policy.

It is aimed at purchasing items with less packaging, and consideration of the real 'need' for the product, purchasing products and with packaging that is readily recycled.

Examples of Avoidance initiatives May be:

Instead Of	Why Not Try
Disposable Batteries	Rechargeable batteries
Paper Towels	Washable Tea towels
Tea Bags	Loose Leaf Tea
Plastic Wrap	Reusable containers with lids
Styrofoam Cups	Washable cups
Plastic Cutlery	Washable Cutlery

Reviewed the quantity of pink "Sani Bins" on site. Following an audit of the contents and liaison with our current provider, it was identified that there was only a requirement for sani-bins in patient rooms in maternity and public toilets. The quantity of sani bins was reduced by 50, and also decreased the frequency of service. This enabled the hospital to reduce their costs in this area by 60%. A further reduction of bins in 2008 by 2, following an audit undertaken which indicated these bins were being utilized for other items.

4.1.2 Reuse Strategy

Kareena Private Hospital, and Ramsay HealthCare have a policy that prohibits the re-use of items that are marked 'Single Use Only' *(Please refer to Single Use Policy)*

Re-using items assists to reduce the volume of waste that is destined for landfill

Items that are able to be re-used at Kareena Private Hospital must be thoroughly cleaned, and then utilizing disinfection or sterilization (whichever is appropriate) made safe to be used again.

Methods of cleaning/disinfection/sterilization of re-usable items include the use of bleaches, steam and low temperature curing environments.

4.1.3 Recycling

Re-Cycling of materials assists to reduce landfill, and promotes environmental savings as fewer natural resources and less energy are consumed. Kareena Private Hospital has in place the following recycling initiatives:

- Cardboard
- Toner Cartridges
- Paper
- Batteries

And, the proposed initiatives for the incoming year are:

- Increased paper recycling
- Review of general recycling activities with local council
- Flourescent tubes

Kareena Private Hospital will undertake scheduled recycling audits at regular intervals to determine compliance with the facilities recycling program.. The results from the audit will be evaluated and strategies developed to further improve the outcomes of the Waste and Environmental Program Plan.

(Refer: Table 3)

4.1.4 Disposal

Disposal is considered the least desirable option when considering waste management. The methods of waste disposal fall into two main categories, namely landfill or incineration.

Kareena Private Hospital have implemented the following strategies for reducing waste disposal requirements.

- disposal requirements considered at prior to purchasing product
- purchase product with a recycle availability, as opposed to a disposal requirement on completion of use
- introduction of additional recycling intiatives including the installation of blue and green recycle bins, to increase the capacity to recycle general paper and improve the use of confidential paper bins

4.1.5 Recovery

Resource recovery involves a range of systems and technologies to reduce waste that is sent to landfill, capture recyclable items from the rubbish, and convert the rubbish into resources such as compost and/or energy.

Resource recovery represents a range of activities characterised by the treatment and recovery of materials and/or energy from waste through thermal, chemical and/or biological means.

Table 2: Recycling AUDIT SHEET

Date:...../...../20.....

Product	Quantity Per Year Kg	Collection		Storage Location	Recycler	Removal Frequency	Income (where applicable)
		Where	Frequency				
Office Paper							
Magazines & newsprint							
Packaging &cardboard							
Telephone directories							
Toner cartridges							
Printer ribbons							
Aluminium							
Glass							
Steel cans							
Fluorescent Light tubes							
Cooking Oil and fats							
Others							

4 (b) ---Audits

Auditing is an essential management tool for measuring the level of compliance against the Environmental and Sustainability Plan. Audits can also identify opportunities for water and energy conservation. The following audits will be conducted regularly.

Clinical Waste	Twice annually Benchmarking usage with other Ramsay facilities
Segregation Audit	Annually
Energy	Benchmarking usage with other Ramsay facilities
Water	Tank installed Benchmarking usage with other Ramsay facilities

4.2.1 Waste Classifications for Waste Segregation Audit

The following waste classifications are to be used when undertaking a waste segregation audit.

***Note**: This list is not all inclusive. The table acknowledges the existence of disposable items, but does not endorse their use.*

Clinical	General	Recyclable
Bandages & dressings contaminated with blood	Food scraps AND disposable food containers	Glass
Blood stained gloves	Gloves (NOT stained with blood)	Paper
Blood stained disposable surgical hardware	Disposable food utensils	Aluminium (cans, foil etc)
Used needles & syringes	Flowers (if not compostable)	Cardboard
Used drainage & suction containers (full/empty)	Plastic bottles (non-recyclable)	Steel cans
Theatre gowns soiled with blood	Disused office supplies	Milk cartons
Bulk blood & body fluids (not capable of safe disposal to the sewer)	Personal items	PET (polyethylene Tetrachloride) Plastic bottles
Treated Pathology waste (used culture plates/tubes etc)	Un-used medical supplies	HDPE (High Density Poly-Ethylene) Plastic bottles * [2]
Blood stained disposable bed liners	Bed liners (not visibly blood stained)	Cooking oils & fats
Blood stained disposable napkins/ incontinence pads	Disposable napkins (NOT visibly blood stained)	Polypropylene bottles *[5]
	Oxygen masks & tubing (clean)	X-ray film (not yet carried out)
	Bed pan covers (clean)	Fluorescent light tubes
	Sterile wraps	
	Dressing / Treatment trays	
	Paper tissues & hand towel	
	Wrappings	
	Drained IV bags & tubing	

4.2.2 Energy and Water Audit

By using energy more efficiently we can:

- Conserve resources;
- Reduce carbon dioxide production hence environmental impact; and
- Save money

The following will be considered in the audit process by the Resource Efficiency Committee:

- Determine the members of an audit team.
- Select target area –energy, and water.
- Obtain all relevant bills and consumption data and outline scope of audit.
- Locate all meters and record waste statistics to establish audit baseline.
- Evaluate the best ways of presenting data.
- Establish a database of relevant information.
- Create "profile of facility" in terms of use of all resources and associated costs.

Outcomes from the audit will be used to:

1. Determine a baseline from which improvements can be measured

2. Develop a plan of action which will allow Kareena Private Hospital to improve environmental practice

Example of Simple Plan:

LOCATION	USE	COMMENTS	IDEAS FOR REDUCING WASTE
Office Areas	Lights	Left on during lunch-time	Use 'SAVE IT' stickers; elect a monitoring team.
	Lights	Not needed near windows	Take some of the tubes out of the lights
	Video	Left on all day	Use timers; put a sign on it
	Heater/cooler	Room too hot/cold	Turn thermostat down / up
	Heater	Heat escapes – gap under door	Use a 'door snake'
	Photocopier	'Energy saver' not used	Put a sign on it

Some initiatives in progress are:

- Posters for energy and water conservation
- Information in the In-Patient Information Booklet
- Water saving devices on all taps
- Changes to scrub sink taps to conserve water (in line with Infection Control guidelines)

Section 5: WASTE HANDLING, CONTAINMENT and TRANSPORT

Kareena Private Hospital has an adequately trained team responsible for the handling and internal transport of waste. Contractors are responsible for the disposal of clinical and related wastes. All areas have relevant spill management kits and staff are appropriately trained to manage spill incidences.

5.1 Review (Internal Transport)

The following areas to be assessed regularly:

- collection process and frequency;
- handling;
- placement of mobile garbage bins, bags and containers;
- location of waste storage area;
- Contractor collection points.

5.2 Waste Handling

a. General and Clinical Waste:

The handling of clinical waste is underpinned by legislative requirements and standard infection control guidelines apply:

- Facility and Organizational Infection Control Policy;
- Hand Washing and Hand Care;
- Management of Sharps Handling and Needle stick Injuries.

Each is audited via the Infection Control Committee with regular education sessions conducted.

Internal and External transport of sharps and clinical waste

All facility personnel involved in the transporting of general waste, clinical waste and sharps containers are trained in the associated hazards of handling such waste, and facility, and infection control, requirements for transport and storage.

A secure area, compliant with storage requirements for clinical and sharps waste, is maintained at the facility until waste is collected by external contractors accredited to transport and remove this category of waste in accordance with relevant Australian Standards and Clinical Waste Handling Guidelines.

Waste transport certificates are provided, to the facility, by the transport company and archived at the facility for the required document keeping period.

A general waste area is located at the facility for the storage of general waste until collected by an external contractor.

Kareena Private Hospital utilizes the services of the following external service providers for the collection and transport of:
General Waste – Sutherland Shire Council
Clinical Waste – Stericorp
Sharps Waste – Stericorp
Cytotoxic Waste – Stericorp

b. Manual Handling:

Manual handling of waste containers is expected to be in accordance with **all** related Manual Handling requirements. Use of mechanical aids will be utilized wherever possible to reduce the risk of sustaining a manual handling injury.

Manual Handling compliance related to waste handling will be audited via the OH&S Committee.

5.3 Waste Bags

Colour coded and signed, (where applicable) waste bags are dedicated to specific waste streams. The colours utilized are in accordance with Australian Standards for waste identification.

- Black Waste Bags are used for the removal of general waste;
- Yellow Bags marked with the signage “infectious waste’ are used to secure clinical waste.

- Purple Bags with appropriate signage for cytotoxic waste (very minimal quantities)

5.4 Waste Trolleys & Mobile Garbage Bins (MGBs)

a. Mobile garbage bins (MGB's):

MGB's are utlised to increase the storage ability in areas of the facility, and to facilitate (where applicable) the transport of wastes to appropriate storage areas.

MGB's are colour coded to indicate the waste stream that it is to store, in accordance with relevant Australaian Standards for waste identification.

- Black/Green Bins – general waste storage
- Yellow Bins – clinical waste storage
- Yellow lockable containers – contaminated secure sharps storage
- Purple bins and lockable containers – cytotoxic waste and contaminated secure sharps storage

b. Waste transport trolleys:

Waste transport trolleys are used exclusively for waste transport within the facility. They will be cleaned on a monthly basis by Oz Bin Clean.

5.5 Tracking

Tracking is conducted by external providers to identify the hospital from which the waste has been generated.
Volume and compliance certificates are provided by the provider, and archived at the facility for the required document storage period.

Data from the certificates is utilized in the analysis of waste data for auditing.

5.6 Holding Areas

Holding areas are compliant with the legislation and regulations for infection control and general waste storage.

5.7 Personal Protective Equipment (PPE)

Personal protective equipment is supplied by the facility and includes:

- eye shields
- gloves
- gowns
- masks
- aprons
- footwear

5.8 Spill Management

Spill Management Procedures are documented in both the Infection Control and Environmental Services Manual.

Specific kits, appropriate to the substance, are located at all relevant areas.

Each area which holds a spill kit is responsible for maintaining the kit and ensuring that all staff are educated.

5.8.1 Spill Kits

The following spill kit, and their location have been implemented at Kareena Private Hospital

Spill Kit	Location
Blood and Body Fluid Exposure Kit	All clinical areas
Cytotoxic Spills	Emergency Department
Formaldehyde Spills	Theatre
Glutaraldehyde Spills	Theatre
Mercury Spills	Matson
Diesel	Generator

Material Safety Data Sheets (MSDS) provide information on the requirements of spill containment, the effects of the chemicals and the appropriate protective equipment. Current (no more than 5 year old) MSDS's, relevant to the chemical and substance, are available in the areas where the substance is stored and used.

5.9 Transport

Transportation and disposal complies with the EPA's Special conditions applicable to the transportation of trade waste being contaminated wastes generated in hospitals, health institutions and medical laboratories.

Section 6: WASTE DISPOSAL

Waste disposal categories are identified and an appropriate disposal program implemented.

a. Clinical Wastes

An accredited service provider is contracted to remove and dispose of clinical waste and medical sharps in accordance with the required State, Environment Protection and Commonwealth Regulations.
A certificate recording the volume of waste transported and disposed is provided to the facility by the external contractor.

Stericorp has been audited by HICMR – Infection Control consultants

b. General Waste

Removed by Sutherland Shire Council on a daily basis

c. Cardboard and Paper Waste

Removed x 2 weekly by Amcor

d. Out of Date Drugs

Returned to Symbion for disposal

Section 7: WORKPLACE HEALTH and SAFETY

Kareena Private Hospital has a robust Workplace Safety Management System aimed at reducing workplace injury and illness. Information relevant to Workplace Safety can be obtained from the H&S Coordinator.

Incident Reporting and Recording:
All waste handling incidents and injuries are investigated as they are reported, and corrective actions, where identified, will be initiated as soon as practical. Incident reports are discussed at the facility safety committee meetings.

Training and Education:
All staff who handle waste and recyclable materials:

- Receive training in basic infection control, personal hygiene, safe handling techniques, correct use of Personal Protective Equipment, spill management procedures and the requirements of the Occupational Health and Safety Act.
- Are issued with appropriate Person Protective Equipment and recive education of storage, maintenance and replacement.
- Are issued with a statement of duties and have access to standard operating procedures.
- Have access to equipment and facilities which minimise manual handling and promote personal hygiene.
- Have access to Material Safety Data Sheets (MSDS) for all chemicals used.
- Are made aware of the requirements of the facility Infection Control Policy and procedures.
- Are offered appropriate vaccination.

Staff Immunization records are kept in the Infection Control Staff Health folder.

Section 8: BIBLIOGRAPHY & ACKNOWLEDGMENTS

Collignon, PJ, Graham, E & Dreimanis, DE, 'Re-use in sterile sites of single-use medical devices: how common is this in Australia', *Medical Journal of Australia*, vol. 164, May, pp. 533-536.

Environment Protection Authority, 1990, Waste Audit Guidelines, Publication no. 277.

Environment Protection Authority, Healthier, Cleaner and Greener: Environmental Auditing Manual.

Environment Protection Authority, Waste Reduction and Purchasing Plan

NHMRC, 1996, Infection Control in the Health Care Setting, Canberra

NHMRC, 1988, National Guidelines for the Management of Clinical and Related Wastes, Canberra.

NHMRC, 1985, Code of Practice for the Disposal of Radioactive Wastes by the User, Canberra.

Northern Sydney Area Health Service, 1995, Procedures for a Memorial Burial for a Non-viable Foetus, North Sydney.

NSW Health Department, 1995, Infection Control Policy, Circular No. 95/13, Sydney.

NSW Health Department, 1992, Guidelines for the Handling, Storage and Disposal of Clinical and Related Wastes, Sydney.

NSW Health Department, 1998, Waste Management Guidelines for Health Care Facilitiies. 98/89.

NSW Occupational Health and Safety Act 1983, and its Regulations.

Sedgwick, Waste Management Numerical Profile

SHPA, 1990, 'SHPA policy guidelines for the safe handling of cytotoxic drugs in pharmacy departments', *Australian Journal of Hospital Pharmacy*, vol. 20, No. 5, pp. 391 - 394.

St John of God Hospital, 1994, Oncology Manual, Goulburn.

WorkCover Authority, 1995, Guidelines for Handling Cytotoxic Drugs and Related Waste in Health Care Establishments, 2nd edn, Sydney.

WorkCover Authority, Health & Safety Notes: Glutaraldehyde Safe Use, Sydney.

Table 3 : Data Analysis from Waste Audit

Waste	Daily Volume (kg)	Estimated Annual Volume (kg)	Average Volume/ Bed Day	Average Volume/ Staff	Cost/kg
Clinical					
Sharps					
Pathology					
General					
Recyclable					
Cytotoxic					
Radioactive					
Grease Trap					
Hazardous Waste					
Pharmaceutical					

Table 4: Storage and Disposal of Waste Register

Waste Type	Storage	Disposal Method		
Clinical				
Sharps				
Pathology				
General				
Recyclable				
Cytotoxic				
Radioactive				
Grease Trap				
Hazardous Waste				
Pharmaceutical				

Table 5: Transporters and Contractors

Waste type	Name of Contractor and /or Transporter	Address	Contact Phone	Trade Waste Licence No.	Destination
Clinical					
Sharps					
Pathology					
General					
Recyclable					
Cytotoxic					
Radioactive					
Grease Trap					
Hazardous Waste					
Pharmaceutical					

Table 6: Annual Report – Waste Management

Waste	Quantity /annum Litres or kgs	Handling costs – cleaning, replacement etc.	Transport costs	Disposal Costs	Total Cost
Clinical					
Sharps					
Pathology					
General					
Recyclable					
Cytotoxic					
Radioactive					
Grease Trap					
Hazardous Waste					
Pharmaceutical					

POLICY / GUIDELINE TITLE:

Resource Efficiency Policy (including Waste Management)

PURPOSE / OBJECTIVE:

To identify opportunities to:

- Reduce or eliminate waste
- Enhance resource conservation – limiting our use of raw materials and non-renewable resources
- reducing energy (all forms) consumption
- improving water efficiency management
- monitoring, reporting and reducing emissions of all pollutants
- evaluating whole of life savings of investing in new buildings and plant infrastructure
- complying with regulations and standards

SCOPE / REFERS TO:

This Standard applies to all Ramsay Health Care employees and non-employees:

- at any building or facility or any ground owned, occupied or managed by Ramsay Health Care; or
- in the course of, or as a result of, any occupational, educational, commercial or other activity organised or endorsed by Ramsay Health Care, wherever its location

DEFINITIONS:

Healthcare Waste:

Defined as all types of wastes (clinical, related, hazardous and general) arising from medical , nursing, dental, veterinary, pharmaceutical, or similar practices, and wastes generated in hospital or other facilities during the investigation or treatment of patients or in research projects (NH&MRC Guidelines, 1999).

Segregation:

The separation of the various waste components, at the point of generation, into their relevant waste stream categories, for subsequent containment, transportation and disposal.

Waste Minimisation:

The application of activities such as waste avoidance, reduction, re-use and recycling to minimise the amount of waste that requires disposal.

Waste Segregation:

The process of keeping individual waste types apart during handling, storage, and transport and to assist resource recovery and ensure appropriate designated treatment and/or disposal methods are utilised.

Safe Operating Procedure (SOP) Safe Systems of Work (SSW) Safe Work Practices (SWP):

A procedure that describes the hazards or risks associated with a task and sets out the steps to be followed, including the risk control measures to carry out the task in a safe manner.

RESPONSIBILITIES:

- Provide the facility with proof of licensing as required by legislation.
- Provide a reliable service.
- Provide records of waste transport certification.
- Provide data on waste generated.

POLICY STATEMENT:

Introduction:

Ramsay Health Care (RHC) and Kareena Private Hospital (KPH) are committed to the safe and environmentally responsible management of waste generated within their facilities. Where possible, the generation of waste should be actively avoided. Where this is not possible, the volume of waste generated should be minimised and the waste must be handled in accordance with relevant legislation and established best practice.

These Guidelines provide a minimum standard for safe and efficient waste management and assist compliance with the relevant legislation and standards governing the management of waste generated by health care facilities.

KPH is responsible for their waste from the point of generation to final disposal, which is from the "Cradle to the Grave".

Waste Stream Definition:

Refer to WASTE and ENVIRONMENTAL AUDIT and SUSTAINABILITY PLAN – "Plan"

Waste and Environmental Audit and Sustainability Plan – "Plan":

KPH is responsible for developing a Waste and Environmental Audit and Sustainability Plan ("Plan") to ensure that the requirements of this guideline and all relevant regulatory requirements are fulfilled.

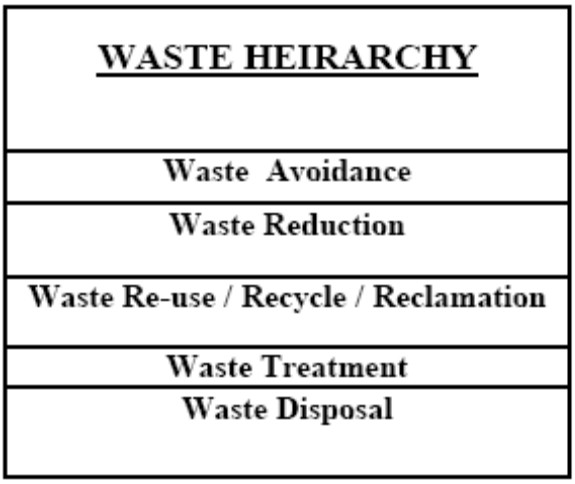
The implementation of an effective Plan requires consideration of the following:

- Establishment of a Resource Efficiency Committee.
- Review of relevant legislation and guidelines.
- Documentation and review of major issues such as waste avoidance, reduction, reuse and recycling.
- Audits to establish baseline data and enable identification of areas for improvement and facilitate goal setting.
- Benchmarking externally to the facility.

Waste Minimisation:

Waste management legislation and guidelines are based on the waste management hierarchy. This hierarchy should be reflected in facility Plan.

The basic approach is that options for avoiding or reducing waste should be implemented first, followed by reusing where possible then recycling what remains. Only then once all opportunities for reducing wastes and/or diverting from landfill, should wastes be sent for treatment and/or disposal.



Waste Avoidance:

Individual facilities should review housekeeping and purchasing to avoid excessive waste without compromising work standards or environmental outcomes.

Waste Reduction:

Waste Reduction can be achieved through product substitution, product modifications and procedural changes.

Some examples to consider are;

- Aim to eliminate mercury from your facility (e.g. in blood pressure machines, thermometers and oesophageal dilators).
- Review the number of products containing chlorine and polyvinyl chlorine (PVC) and investigate suitable alternatives

Recycle and Reuse:

Product recycling and reuse can minimise the volume of costly waste disposal streams, though a high standard of patient care and worker safety may preclude reuse of some items.

Examples of reuse may include crockery, cutlery and washable nappies.
Examples of recycling may include printer cartridges, glass, plastics, paper and cardboard.

Uses for plastics and recycled plastics in Australia

Plastic identification code	Name of plastic	Description	Some uses for virgin plastic	Some uses for plastic made from recycled waste plastic
1 PET	Polyethylene terephthalate PET	Clear, tough plastic, may be used as a fibre	Soft drink and mineral water bottles, filling for sleeping bags and pillows, textile fabrics	Soft drink bottles (multi-layer), detergent bottles, clear film for packaging, carpet fibres, fleecy jackets, filling for sleeping bags
2 HDPE	High-density polyethylene HDPE	Very common plastic, usually white or coloured	Crinkly shopping bags, freezer bags, milk and cream bottles, bottles for shampoo and cleaners, milk crates	Compost bins, detergent bottles, crates, mobile rubbish bins, agricultural pipes, pallets, kerbside recycling crates
3 V	Unplasticised polyvinyl chloride UPVC	Hard, rigid plastic, may be clear	Clear cordial and juice bottles, blister packs, plumbing pipes & fittings	Detergent bottles, hoses, floor tiles, plumbing pipes and fittings
	Plasticised polyvinyl chloride PPVC	Flexible, clear, elastic plastic	Garden hose, shoe soles, blood bags and tubing	
4 LDPE	Low-density polyethylene LDPE	Soft, flexible plastic	Lids of icecream containers, garbage bags, garbage bins, black plastic sheet	Film for builders, industry packaging and plant nurseries, bags.
5 PP	Polypropylene PP	Hard or flexible plastic – many uses	Icecream containers, potato crisp bags, drinking straws, hinged lunch boxes	Compost bins, kerbside recycling crates, worm factories
6 PS	Polystyrene PS	Rigid, brittle plastic. May be clear, glassy	Yoghurt containers, plastic cutlery, imitation crystal, glassware	Clothes pegs, coat hangers, office accessories, spools, rulers, video/CD boxes
	Expanded polystyrene EPS	Foam plastic	Hot drink cups, takeaway food containers, meat trays, packaging	
7 OTHER	Other plastics			

KPH will continue to canvas their collection contractor to confirm the introduce general recycling

These 1 numbers should be displayed where plastic recycle bins are located.

Any plastic containers contaminated with blood, body fluids or pharmaceuticals must not be placed in the recycle collection bins.

Product Evaluation:

KPH to have a 'Product Purchasing Policy' for clinical and non-clinical products. The policy should include a 'cradle to grave' assessment with preference, where clinically appropriate, given to products low environmental impact.

(See Appendix 1 for Product Evaluation Forms)

Waste Audits:

A waste management baseline audit should be conducted before developing or updating the WMP to determine current performance in terms of:

- Safety compliance related to waste management;
- confirmation of appropriate clinical and related waste segregation and disposal;
- environmental impact should be considered;
- cost; and
- Regulatory compliance.

Results of all audits should be fed back to the waste generators and utilised in the formulation of action plans to improve performance.

There are four components of waste audits:

1. Waste Management Numerical Profile which examines the following areas of the facility Plan:

- management;
- policy;
- occupational, public health and safety;
- waste minimisation;
- handling, containment and transportation; and
- Education.

2. Segregation Audits

Both clinical waste and general waste should be inspected to accurately determine the level of correct segregation. Other categories of waste and recyclable materials can also be audited (except hazardous, cytotoxic and radioactive waste).

Employees or contractors undertaking segregation audits must be trained in safe auditing techniques and have had appropriate immunisations. (Refer SOP – Appendix 2)

Audits of clinical waste should be a visual / photographic inspection only. The decanting of clinical waste including sharps is not to be undertaken by KPH employees.

3. Energy audits (eg. Energy efficient lighting: EPA Green Lights Program)

4. Water audits (eg. Low flow showers and toilets and automated scrub taps).

Refer to State water and energy authorities for related audits.
(See intranet site (http://www.health.nsw.gov.au/public-health/ehb/general/waste/generic_wmp.doc) for the 'Sedwick Waste Management Numerical Profile', resource access)

Waste Segregation:

Waste segregation is the process of separating wastes at the point of generation and keeping them apart during handling, collection, facility storage and transportation.

The correct segregation and containment of all wastes are required in order to comply with the provisions of the Waste Regulations and can be best achieved through:

- Providing education and training for all employees / non-employees who generate waste
- identification of material composition (Material Safety Data Sheets)
- establishment of state approved identifiable colour coding, and labelling of waste containers;
- the provision of suitable containers and efficient disposal procedures at suitable locations; and
- ensuring all wastes can be easily, safely and correctly segregated at the point of generation.

Waste Tracking:

KPH does not provide waste tracking.

Waste Labelling, Containment, Handling, Storage and Transport:

KPH is responsible for ensuring employees responsible for the handling, internal transport, spills management and disposal of all facility wastes are adequately trained and comply with safe work practices.

The Plan should specify when a review of the facility waste collection and transportation processes is scheduled and the plan should also outline the means whereby outcomes and improvements required will be communicated to the employees.

Waste Identification and Containment Table

Waste Category	Colour of Container	Label Colour & Marking	Sign	Containment
Clinical	**Yellow**	**Black** Clinical Waste	Biohazard Symbol 	**Sharps:** Impact & puncture – resistant, spill proof and tamper proof when locked Comply with Australian Standards **Clinical:** (non-sharps) Yellow plastic leak resistant labelled bags or Yellow Rigid walled labelled Bins
Cytotoxic	**Purple**	**White** Cytotoxic Waste	Cell in Telophase 	**Sharps:** Purple Impact & puncture –resistant, spill proof and tamper proof when locked Comply with Australian Standards **Non-sharps:** Purple plastic leak resistant labelled bags lining Purple Rigid walled labelled lidded Bins
Radioactive	**Red**	**Black** Radioactive Waste	Radioactive Symbol 	Labelled red bag lined red sealable containers. Management & disposal must comply with The Radiation Safety Act
All other wastes	**Not specified**	Not specified	As specified by relevant regulations	None

Waste Handling:

Waste manual handling should comply with RHC 'Manual Handling Guidelines' and the facility policy and procedures.
The management of sharps handling, hand hygiene and needle stick injuries must comply with the facility 'Infection Control Policy and procedures'. Appropriate PPE must be worn when handling waste.

Internal Waste Transport:

Internal waste transport within the facility refers to the movement of wastes from its source to the storage, treatment or collection point. Waste should be transported as follows:

- Clinical or related waste in a rigid-walled, lidded, leak proof and puncture resistant correctly coloured and labelled container designated container.
- General waste in a trolley or mobile garbage bin designated and labelled for waste transport only.
- Trolleys and mobile garbage bins should be cleaned according to the facility 'Infection Control Policies'.
- All required personal protective equipment must be available and utilized through out the waste management process
- Waste chutes must not be used to move clinical or related waste.

Clinical Waste Storage:

Clinical waste storage areas must;

- be clearly labelled with the biohazard symbol and signed 'Clinical Waste';
- be an enclosed lockable structure with smooth impervious floors;
- have a water supply available and suitable drainage;
- have adequate natural ventilation with good lighting; and
- have spill kit and relevant SOP in the storage area.

Home Health Care Clinical Waste Transport:

Vehicles transporting clinical waste must;

- have clearly labelled, yellow rigid leak proof containers with secure fitting lids;
- containers must be secured in the vehicle and exchanged when full; and
- be locked when unattended.

Spill Kit Management:

KPH will –

- have in place documented procedures for spills management and conditions under which emergency services should become involved;
- provide relevant spill kits in waste storage and other areas as required;
- ensure all employees receive training in spills and emergency procedures management;
- maintain a list of all spill kits, their location and kit checking procedures; and
- have signage to indicate spill kit location must be displayed in storage areas.

Waste Treatment and Disposal:

The external transportation of all waste streams must be EPA compliant and should be arranged through contractors with the required licenses.

Facility representatives are encouraged to visit their waste contractors' treatment sites as part of the facility waste management audit program.

Radioactive Waste Disposal:

Refer to RHC Ionizing Radiation and Laser Guidelines and related legislation.

Asbestos Contaminated Waste:

Refer to RHC Hazardous Materials Guidelines and related legislation.

Radiography Waste:

Recycled silver from radiography water waste and x-ray films must be removed by an EPA approved contractor.

Pharmaceuticals:

Out of date and pharmaceuticals (excluding cytotoxic) no longer required should be returned to the facility pharmacy in their original containers for disposal.

Liquid Trade Waste:

Facilities should contract their local sewerage authority to determine requirements for the discharge of liquid waste to the sewerage system. A "liquid trade waste agreement' may be required for the regular removal of grease trap waste.

Chemical Waste:

Chemical waste includes but is not limited to mercury, formalin and glutaraldehyde, for which there are special disposal requirements. Facilities must consult the relevant State authorities for disposal information and authorised disposal contractors.

Material Safety Data Sheets (MSDS) may also indicate the requirements for disposal.

General Waste:

General waste is sent to landfill via an approved contractor.

Workplace Health and Safety:

KPH is responsible under the legislation for providing a safe, healthy workplace and safe systems of work.

The risk management process must be implemented to identify, assess and control the risks (Refer: RHC 'Hazard Management Guidelines').

The management of waste presents two main risks to employees, namely the risk of disease and the risk of injury.

Contingency plans must then be established for all emergencies, which are likely to occur as a result of the handling, storage, transport, treatment and disposal of wastes within the facility.

Facilities must appoint an employee appropriately trained to manage the Plan.

Safety Committee and Resource Efficiency Committees

Where there is a stand alone Resource Efficiency Committee the facility safety professional should liaise closely with the Committee to ensure;

- consistent and adequate management of Workplace Health and Safety issues;
- dissemination of waste related information to employees;
- Representation on the safety committee; and
- Tabling of reports/audits and Plan outcomes at the safety committee.

The Safety Committee or appropriate committee is responsible for reviewing waste related

- safe operating procedures;
- incidents and injuries
- waste management program; and
- record keeping and regulatory compliance.

Information, Education & Training:

KPH will provide all employees and non-employees (including clinical and non clinical) who handle waste and recyclable materials with:

- Information relating to potential hazards.
- Waste Stream definition, identification, segregation, recycling, transport and disposal education.
- Regulatory requirements and methods of compliance.
- Education and training in basic infection control, personal hygiene, safe handling techniques, correct use of Personal Protective Equipment, spills management procedures and all relevant policies and procedures.
- Access to immunisation program, first aid and medical treatment.
- Incident and injuries management procedures.

Education and Training should be provided:

- During the induction of new employees.
- Prior to the introduction of new procedures or technology.
- Annually or as required for relevant employees

Employee waste management questionnaires should be used to evaluate education outcomes.

News letters and information brochures are a useful means of raising waste management awareness within the facility.

Monitoring Performance:

Performance monitoring will be managed through the Hospital H&S Improvement Plan and tabled at the OHS Committee.

The Resource Efficiency and OHS committees or appropriate committee is responsible for ensuring that these outcomes along with learning opportunities are communicated to the facility executive team, department managers, waste contractors and employees.

Record Keeping:

Waste management related documents including Policies, Procedures and Plans will be stored and archived in accordance with legislative requirements for 7 years.

RELATED POLICIES:

- Chemical Management Policy
- Incident Reporting Policy
- Significant Safety Events Policy
- Contractor Management Guidelines
- Infection Control
- RHC Ionizing Radiation and Laser Guidelines and related legislation.
- RHC Hazardous Materials Guidelines and related legislation.
- RHC Purchasing Policy

RELATED FORMS:

Product Evaluation Form
Staff Incident Report
Root Cause Analysis
Incident Report Form

REFERENCES:

Occupational Health and Safety Act 2000
Environment Operations Act 1997.
Occupational Health and Safety Regulation 2001
NHMRC- National Guidelines for Waste Management in Health Care Industry, 1999.
Environment Guidelines: Assessment, Classification and Management of Liquid and Non-Liquid Wstes, 1999.
WorkCover NW- Guidelines for handling cytotoxic drugs and related waste in health care facilities, 2nd Edition 1995.
AS/NZS: 3816. Management of Clinical Related Wastes, June 1998.
AS: 4031. 1992 . Non-reusable Containers for the Collection of Sharps Medical Items used in Healthcare Areas
AS/NZS 4261 1994 Re-usable Containers for the Collection of Sharp Items in Human and Animal Medical Applications
AS/NZS: 4478 1997. Guide to the Reprocessing of Reusable Containers for the Collection of Sharp Items used in Animal Clinical/Medical Applications
NZS4304:2002 Management of Healthcare Wastes.

POLICY WRITTEN BY:

Approved by: …… **Chair Relevant Committee**
Date:

Authorised by: ..... **CEO**
Date:

Document Title:	
Developed By:	
Authorised By:	
Date Developed:	
Last Reviewed:	*Next Review Due:*

APPENDIX 1

RAMSAY HEALTH CARE

PRODUCT EVALUATION FORM

Name of Product: ----------

Model Number ----------

Department Evaluating: ----------

Details of Company and Contact:

Company: ----------

Address: ----------

Phone: ----------

Consider the following points:

- ✔ Ergonomics
- ✔ Safety Issues
- ✔ (electrical , design, flammability, manual handling)
- ✔ Ease of use by patient
- ✔ Does the equipment meet all patient needs?
- ✔ Is personal protective equipment required for operation?
- ✔ Does the equipment do what its designed for?
- ✔ Design Issues
- ✔ Transport (manoeuvrability)
- ✔ Adequate safety features
- ✔ (brakes, side rails, emergency stop system)
- ✔ Maintenance Issues
- ✔ Storage?
- ✔ Accessories
- ✔ Limitation
- ✔ Cleaning issues

Reason for Product Request		
☐ New Legislation / Standard	☐ New Technology	☐ Price Advantage
☐ Current Product Unacceptable	☐ Surgeon Request	☐ Contract Review
☐ Risk Minimisation	☐ Improved Patient Outcome anticipated	☐
☐ Other (Describe)		

Clinical Competencies required when using this product: ☐ Yes ☐ No ☐ N/A

Who will be responsible for preparing competencies? _____

OH&S: ***Relevant and appropriate risk assessment required for all products and to be presented at OH&S Committee***

MSDS Required: (for all chemicals) ☐ Yes ☐ No Contains Latex: ☐ Yes ☐ No

Contains Hazardous Substances: ☐ Yes ☐ No Manual Handling Issues: ☐ Yes ☐ No

Safe Operating Procedure Required: ☐ Yes ☐ No

Education: ☐ Once off in-service ☐ Ongoing ☐ Train the trainer ☐ N/A

After hours Education/Support Available from Supplier: ☐ Yes ☐ No

Disposal	Does the product produce waste products	☐ Yes	☐ No
	If Yes: Disposal requirement for waste		
	End use disposal requirements:	☐ Land fill	
		☐ Special requirements (Describe)	

Appendix 1 contd….

Site Specialist Sign-Off – ensure required department/s reviews articles and signs off		
Director of Nursing (requesting site) Signature:	Approval / Notified trial	☐ Yes ☐ No
	Presented to Executive:	☐ Yes ☐ No
Occupational Health and Safety Assessment	Recommended for trial	☐ Yes ☐ No ☐ Not applicable
	Requires further assessment	☐ Yes ☐ No *(Specify reasons)*
Signature	Presented to Committee:	☐ Yes ☐ No
Infection Control assessment	Recommended for trial	☐ Yes ☐ No ☐ Not applicable
Signature	Requires further assessment	☐ Yes ☐ No *(Specify reasons)*
Biomedical Engineering Assessment	Recommended for trial	☐ Yes ☐ No ☐ Not applicable
Signature	Requires further assessment	☐ Yes ☐ No *(Specify reasons)*
Environmental Services	R Recommended for trial	☐ Yes ☐ No ☐ Not applicable
Signature	Requires further assessment	☐ Yes ☐ No *(Specify reasons)*

What do you think?

Do you recommend this item for purchase?	☐ Yes	☐ No

Advantageous	Disadvantageous

APPENDIX 2

SAFE OPERATING PROCEDURE # 10	
Description of Task:	WASTE AUDITS
Supervision:	1 – 2 PERSONS
Identified Risk:	Exposure to – blood, body substances, sharps
Safety Controls/PPE:	Appropriate Equipment – see below
Precautions to be Exercised:	• Infection Control protocols • Manual Handling
Training/Competency Requirements:	• Infection Control guidelines • Use of PPE
Relevant Legislation/Standard e.g. Manual Handling Regulations, Plant Regulations, etc.	• NSW Health • EPA • Infection Control guidelines
Method of Communication of S.O.P.	Waste Management Committee
Procedure created by:	WPHC

Equipment to be used:

- Pedestal scales - 0.05kg to 150kg
- Gloves – heavy duty
- Heavy duty PVC aprons / gowns
- Masks – if odour offensive
- Eye protection – full facial shield
- Safety footwear – fully enclosed footwear
- Sharps container
- Long handled tongs
- Plastic sheeting

Sequential Steps/Stages for Procedure:

1. Each bag of waste is weighed and weight documented
2. Waste audit to be conducted in a secure area
3. Put on appropriate PPE as provided
4. Lay plastic sheeting down over floor
5. Empty rubbish onto sheet
6. Separate waste into categories – general, clinical, recyclables
7. Weigh or approx % of each category
8. Photographs taken for education purposes
9. NUM and waste committee representative from area invited to review and discuss contents
10. If any contaminated waste inappropriately placed in general waste container, all waste must therefore be treated as contaminated and placed in appropriate bin
11. Gather up waste in plastic sheeting for disposal
12. Clean up area as required