LEES1 WASTE MANAGEMENT PLAN

May 2016

1.0 Introduction

The proposed LEES1 project consists of a new facility housing biology research and teaching labs and associated office areas.

The proposed building consists of 8 levels:

- Level 1 – Support and shared spaces (loading dock, waste room, wash up, etc.)
- Level 2 – Teaching Lab
- Level 3 – Teaching Lab
- Level 4 – Teaching Lab
- Level 5 – Research Lab
- Level 6 – Research Lab
- Level 7 – Research Lab
- Level 8 – Plant

The proposed facility will have capacity to accommodate approximately 150 research staff and 384 students.

This waste management plan was developed based on the information obtained in consultation with the proposed users and the University of Sydney lab management and facilities management teams.

2.0 Waste Streams

The identification of waste streams is based on information provided by The University of Sydney. However, it must also be recognized that the waste and recycling generation will be influenced by the LEES1 waste management procedures and attitudes of occupants. Therefore, the management of waste needs to be able to accommodate for variations to the expected waste streams and generation rates.

There are three different operational areas that will be to divide the LEES1 into manageable sections
these are:

- Research Areas
- Teaching Areas

There have been a number of different waste and recycling streams identified within the LEES1, it has been identified that there will be normal office generated general waste and recycling, but also a wide range of hazardous and non-hazardous waste from the laboratories. The likely waste streams include:

- General Waste;
- Recyclable waste;
- Hazardous (PC2 laboratory) waste;
- Chemical waste;
- Radioactive waste;
- Compressed gas cylinders waste.

3.0 Waste Generation Areas and Storage Areas

There are several well defined operational areas within the LEES1 and depending on their operational activities they will generate one or more of the waste streams in the previous section. The waste generation area and storage areas for each waste stream are indicated in the table below.

The cleaners will not clean laboratories without supervision. The cleaners will undertake general cleaning, which is emptying of general waste and recyclable waste bins. Laboratory staff will be required to transfer and dispose or contaminated and toxic waste. The waste storage areas will all be located proximal to LEES1 Loading Dock Area.

Waste Stream	Equipment/Bin Colour	Waste Generation Area	Storage Area
General Waste	Varying sized bins throughout the facility. Some bins will remain in place with waste transferred to another larger bin for transport to storage area. There will also be a bin exchange system for restrooms and larger bins. Clear or Dark Green Bags. Dark Green or Black Bin Body with Red Lid.	• Research Office Areas • Teaching Commons Area	Waste Room near Loading Dock
Recyclable waste	Paper and cardboard can be placed directly into 240L bins located strategically around office or there maybe the utilization of floor / desk boxes with the transfer of material to larger bins by cleaners. Blue Bin Body with Blue Lid.	• Research Office Areas • Teaching Commons Area	Waste Room near Loading Dock

Hazardous waste	Hazardous Waste will operate on an exchange system. The type of system will depend on Class and Division. It will be collected in approved dangerous good drums.	• Research Labs • Teaching Labs	Appropriate collection point in the Waste Room.
Chemical waste	Lab management staff will transfer hazardous chemical waste.	• Research Labs • Teaching Labs	Chemical Waste Room by laboratory management staff.
General Biological Waste	Autoclaved. Transport of biological waste is to be in accordance with UoS WHS policy. Waste to be bagged. There will be storage space for General Biological Waste Bins. Yellow Bags. Yellow Bin Body with Yellow Lid	• Research Labs • Teaching Labs	Biological waste area in the Waste Room near Loading Dock
Radioactive waste	Only radioactive waste lower than 100 Becquerel's per gram to be disposed of from LEES1. Liquid and Solid waste to be packaged in accordance with UoS WHS policy and placed in approved dangerous goods containers. Red Bin Body with Red Lid	• Research Labs	Solid and Liquid waste under 100 Becquerel's per gram to be disposed of in Chemical Waste Room by laboratory staff. Waste of more than 100 Becquerels per gram to be held in Radioactive Holding Room pending decay
Compressed gas cylinders waste	Empty Gas Cylinders transported to Gas Cylinder Cage	• Research Labs • Teaching Labs	Gas Cylinder Collection Room by laboratory staff.

4.0 Waste Generation

The following information outlines the flow of each waste stream from generation to transfer to storage and then collection & disposal.

Waste Stream	Daily Waste Generation	Removal Frequency	Storage Area
General Waste	500L	Biweekly	10 x 240L bins
Recyclable waste	300L	Biweekly	6 x 240L bins
Hazardous waste	Variable	Ad hoc	Dependent on type
Chemical waste	Variable	Ad hoc	Dependent on type
General Biological Waste	Variable	Ad hoc	10 x 240L bins
Radioactive waste	Variable	Ad hoc	Dependent on type
Compressed gas cylinders waste	Variable	Ad hoc	Dependent on type

5.0 Collection

The collection of waste material will occur at the LEES1 Loading Dock and this will be managed by the Loading Dock Manager. Waste removal vehicles will access the loading dock via Barf Road.