CoEP 19

ENVIRONMENTAL AND SANITATION POLICY

Preamble

The St. Louis College of Education Environmental and Sanitation Policy is committed to the pursuance of a safe and healthy environment for the College community and for achieving and maintaining compliance with all environmental, health, and safety laws and regulations.

1 Environmental Sanitation Guidelines

1.1 Purpose

The purpose of this document is to provide guidelines for a safe and healthy environment for the College Community and for achieving and maintaining compliance with all environmental, health, and safety rules and regulations.

1.2 Scope

This Environmental and Sanitation policy applies to all members of the College Community and other Stakeholders.

2 POLICY FRAMEWORK AND KEY RESPONSIBILITIES

2.1 College Council

The Council has ultimate responsibility and 'ownership' of the Environmental and Sanitation Policy. It has oversight responsibility for its implementation within the College by ensuring effective management of good environmental health and sanitation practices.

The Council shall carry out its responsibility by:

i. Demonstrating strong and active leadership by ensuring that there is visible and active commitment through regular review of the environmental sanitation policy.

- ii. Setting the direction for effective environmental sanitation management as an integral part of the academic and administrative decisions.
- iii. Ensuring there is a well-structured team to champion the College's environmental and sanitation responsibilities.
- iv. Ensuring that there are effective 'downward' and 'upward' communication channels embedded within the management structures.
- v. Taking the lead in ensuring the communication of environmental and sanitation duties and benefits throughout the College.
- vi. Ensuring adequate finances, personnel, equipment, materials and other resources are made available so that the requirements of this policy and sustainable environmental and sanitation practices can be fulfilled.
- vii. Expecting all staff and students to participate fully in meeting the core objectives of setting up this policy for the College's Environment and Sanitation

2.2 College Management

- i. The Management has the responsibility for developing, implementing and improving the College's Environmental and Sanitation management system.
- ii. The Management has the duty of taking all practicable measures to create an environmentally-friendly work environment. These include the following:
- Providing leadership and direction in Environmental and Sanitation matters and ensuring there is continuous improvement in the Environmental and Sanitation performance of the College;
 - Ensuring suitable control of Environmental and Sanitation management which is integrated into general academic and administrative activities;
- Establishing and achieving overall Environmental and Sanitation goals and objectives as part of the strategic plans of the College and

• Developing a clear chain of responsibility for Environmental and Sanitation matters through normal line management channels.

2.3 Heads of Department/Units

As frontline managers they are expected to implement the College's policy related to Environment and Sanitation. They shall achieve this by:

- i. Undertaking effective consultation with staff and students, ensuring that they understand the mandatory role each one has to play in order to gain their commitment to achieving excellent Environmental and Sanitation service delivery standards.
- ii. Ensuring that Environmental and Sanitation matters are given the appropriate priority while carrying out their regular duties.
- iii. Ensuring that the necessary information, instruction, training and supervision is provided to all staff and students to enable them undertake their tasks without risk to their own health or that of other persons.
- iv. Ensuring that environmental and sanitation problems reporting procedures are established and complied with in line with local and college policy.
- v. Ensuring that all departments and units have suitable and sufficient risk assessments and safe systems of work in place for the protection of staff, students, service users, and others that can be affected by our activities.
- vi. Ensuring that staff and students are conversant with the College's Environmental and Sanitation Policy and associated policies and procedures and that they understand the importance of complying with the requirements.
- vii. Monitoring staff and students and appointed contractors to ensure that they undertake their duties/responsibilities in a proper hygienic manner in line with the College policies.
- viii. Ensuring regular inspection and audits of the College's premises under

their responsibility, including operational areas and equipment to ensure a

safe teaching and learning environment. ix. Liaising and consulting with the Director of Works and Physical Development for the management of the risks involved with related issues e.g. electrical systems, water systems, and contractors. x. Allocating the necessary human and financial resources to achieve the goals.

- 2.4 Staff and Students Every member of staff and/or every student has a responsibility to: i. Take reasonable care of their own personal hygiene and other persons affected their actions may be by ii. Familiarize themselves with and abide by the Environmental and Sanitation policy and all applicable College policies, procedures and guidelines. iii. Co-operate with their heads on Environmental and Sanitation matters. iv. Identify and report to their heads any insanitary conditions that could be of injurious to health arising out work activities. appropriate Report all insanitary conditions the authorities. V. to vi. Be aware of the College Environmental and Sanitation policy and the necesprevent diseases. sary control measures to vii. Avoid interference in relating to health matters and safety. viii. Regularly apprise themselves with, the latest information, instructions, training received. and ix. Attend the relevant modules of training and workshops
- 2.5 The Environmental Health Sanitation Office (Adviser) and The Officer for shall be responsible but limited not i. General supervision and control of Public Health Staff/Sanitary workers in the College. ii. Analyze and advise on the planning, design, construction and maintesanitation systems, including waste treatment iii. Analyze Public Health consequences of various human activities to ensure sound judgment during inspection.
- iv. Undertake education and compliance activities to assist food and other

vendors in meeting their hygienic and legislative requirements.

- v. Inspect workplaces regularly to audit safety and environmental procedures and report findings as appropriate.
- vi. Plan and organize general environmental sanitation activities of the College.
- vii. Create and implement an Environmental Management Plan/Policy.
- viii. Implement and maintain programs and procedures to facilitate a safe environment
- ix. Review, develop and improve the college's safety management system, while ensuring that health and safety risks are identified, assessed and managed with appropriate control measures in order to comply with legal and regulatory requirements.
- x. Prepare an annual budget and an annual report indenting the Environmental Health stores.
- xi. Ensure that the team has effective strategies and plans, with a strong performance management culture.
- xii. Advise Management and other officers on all aspects relating to the Environmental Health and Sanitation issues.

3 GUIDELINES FOR CLEANING WASHROOMS

3.1 Standards

There shall be a training for all the cleaners on the use of chemicals.

The following standard which is the absolute shall apply whenever applicable. The college community shall therefore work towards it.

At every given time, there shall be a separate washroom for students: ladies, gents as well as separate washroom for staff ladies and gents. Similarly, there

shall be a separate washroom facility for male and female physically challenged.

3.1.1 Students

• Ladies: 25 or less to 1 cubicle

• Gents: 50 or less to 1 cubicle (minimum 4 cubicles) For non-hostel facilities

• Ladies: 7 or less to 1 cubicle (minimum 7 cubicles)

• Gents: 10 or less to 1 cubicle (minimum 5 cubicles) For hostel facilities

3.1.2 Staff:

10 staff or less to 1 cubicle (minimum of 2 cubicles – one each for men and women)

3.2 Cleaning Procedures

A clean, well-maintained washroom promotes health and hygiene and reduces the spread of infection and diseases. It is essential that janitorial staff follow consistent washroom cleaning procedures. Not only does this prevent cross contamination, but it also improves efficiency and reduces overall labour time.

3.2.1 Safety Precautions

Before beginning with any cleaning task, cleaning and janitorial staff shall ensure that they fully understand how to use the chemicals and equipment required for the job. It is mandated by Occupational Safety and Health Administration (OSHA) that every employee has a right to know about the possible chemical hazards within their workplace.

• A Safety Data Sheet (SDS) shall provide the information regarding the chemicals within the building. The SDS shall be read and understood, as well as the product label for every product that is used. Supervisors shall provide information on SDS and shall also help subordinates read and understand each page.

• Janitors shall;

- ✓ be careful not to use cleaning agents (chemicals) on any surfaces for which they are not intended. Be extra cautious when using acid cleaners. As much as possible avoid mixing different chemicals which could cause serious or fatal injury.
- ✓ wear the appropriate personal protective equipment (PPE) to protect themselves from exposure to corrosive chemicals.
- ✓ wear a pair of gloves, a mask and a pair of goggles to prevent chemical splashes from coming into contact with the skin and eyes.
- ✓ practice universal precautions when cleaning any blood or body fluid spills, or soiled materials that could contain these or other potentially infectious substances.

3.2.2 Preparation

Supervisor shall make sure water is running or available when preparing for washroom cleaning. Ensure to assemble all cleaning materials needed for the specified task, such as: soap, dusters, dispenser refills, mops and mop buckets and other proper cleaning equipment.

3.2.3 Daily Cleaning Procedures

The following cleaning procedure shall be followed:

- Always clean from top to bottom.
- Clean from dry to wet.
- Work towards the exit door.
- Every washroom shall be washed at 4-hour interval every day between 6am and 10pm. The last cleaning for the day shall be at 6pm

3.3 Cleaning Toilets and Urinals

Toilets and urinals can be tough and unpleasant to clean. By applying the proper disinfectant to the bowls ahead of time, the job of janitorial staff will be less troublesome and will give cleaner results. First flush each unit. This is done to ensure that the unit is free of contamination and determine if it is working properly. Report any damage or malfunctioning units to your supervisor or maintenance department.

- It is good practice to back-flush commodes before cleaning. Do this by inserting the bowl mops (w/c brush) several times into the bowl throat, forcing the water up and over the bowl trap. This eliminates the water in the bowl, allowing more of the surface to be cleaned and less dilution of the cleaner.
- Remove debris and urinal blockages with your gloves on and place in a hygienic containers.
- Apply a disinfectant solution to the interior and exterior surfaces of all urinals and toilets.
- Let it stand and move on to dry cleaning.

3.3.1 High Dusting

Practicing the "top to bottom" rule, begin by using a long-handled ceiling brush to remove dust from ceiling corners, wall vents, tops of partitions, door frames, window sills, light fixtures and other high areas that may gather dust. This can be done once or twice a week.

3.3.2 Trash Removal

Empty all trash receptacles and disposal units of sanitary napkins and other items. Remove the contents and replace the liners. Never compress the trash and always be careful of sharp objects that may be sticking out of the liners. Spray the receptacles with disinfectant spray such as Sodium Hypochlorite Solution.

3.3.3 Dispensers:

Soap Dispensers

- Check the soap dispenser and refill when necessary.
- Follow the manufacturer's instructions for opening, filling, and securing each type of soap dispensing unit.
- Clean the exterior of the soap dispensers with a damp cloth and a disinfectant solution. If necessary, remove any buildup around the delivery area.

Allow it to air dry.

3.3.4 Paper Towel Dispensers

- Unlock the dispenser and refill the paper towels. When operating or cleaning it, be sure to follow the manufacturer's instructions.
- Replace and add more towels as needed to fill the unit in accordance with the manufacturer's instruction. Do not overfill the dispenser because it makes the towels difficult to pull out. Check to make sure towels dispensed easily.
- Close and lock the dispenser. Make sure it is secure.
- Damp-wipe the outside of the towel dispenser or the hand dryer with a disinfectant solution and allow it to air dry.

3.3.5 Toilet Tissue Dispensers

- Unlock the dispensers for the toilet tissue holders. Remove the roll and damp-wipe the inside of the holder to remove any paper dust using a disinfectant solution. Allow it to air dry.
- Install a new roll of tissue. Be sure the roll unwinds over the top of the roll and not from underneath. This allows it to be pulled out more easily and avoids unrolling and wasting of the product.
- Close and re-lock the dispenser. Damp-wipe the outside of the dispenser with disinfectant solution. Restock any other dispensing units in the restroom. Damp-wipe the units with disinfectant solution. Report any equipment, including dispensers that look damaged or do not work properly, to your supervisor.

3.3.6 Dry Floor Care

Dust mop the floor starting from the farthest corner and working towards the door. Collect the dirt with a dustpan and place it in the proper trash receptacle.

3.3.7 Sinks and Countertops

Clean sinks by first using a paper towel to remove any hair or debris. Spray disinfectant inside of the sink and exterior surfaces including all metal handles, faucets and the plumbing until covered. Allow the product to stand for at least 10 minutes for proper disinfection. Wipe using a clean cloth or sponge.

3.3.8 Mirrors and Glass Surfaces

Clean mirrors and glass surfaces. Spray glass cleaner from the bottom to the top. Using a clean cloth, wipe the surface from the top to the bottom to prevent streaking.

Note: Be careful how you use your damp cloths or sponges. Avoid using the same cloth for cleaning the toilet, the mirrors, and the sink. This reduces the risk or cross-contamination.

3.4. Spot Cleaning

Spot clean with disinfectant solution to remove any stains and dirt from walls and switches. Make sure to spray the cleaner on the cloth or sponge when cleaning light switches or fixtures.

3.5 Cleaning Toilets and Urinals

Now that the disinfectant has had ample contact time, you can continue cleaning the toilets and urinals.

- Clean the inside of the toilet with the bowl mop paying close attention to the underside of the flush rim. This prevents the accumulation of bacteria that can spread disease and create unpleasant odors.
- Flush toilet to rinse the bowl. Use the clean water to rinse your bowl mop.
- Flush toilet again.

- Wipe down the exterior surfaces of the fixture with a clean cloth.
- Damp wipe all the flush handles and all other chrome. Allow the disinfectant to air dry.
- Use an acid bowl cleaner to de-scale the flush rim once a week. Remove water by back- flushing with a bowl mop. Saturate the mop with the cleaner and wet all surfaces thoroughly. Rinse by flushing. Only use the acid bowl cleaner on the interior of the bowl and NEVER on the seat. Acid residue could cause harm to skin.
- For urinals, use a bowl mop and wash the pre-sprayed disinfectant from the top to the bottom.
- Replace the urinal screens.

3.6 Tubs and Showers

- When cleaning tubs and showers, first remove all gross soils.
- Apply a tub and shower disinfectant to the walls and floors of a tiled shower stall. Be sure to read the label for dilution recommendations. Thoroughly wet all surfaces including the door tracks, doors, walls, soap dish, faucets and showerhead.
- Allow approximately ten minutes of contact time. Wipe with a nonabrasive scrub pad or sponge.
- Rinse thoroughly.
- Always use a nonacid disinfectant on fixtures. Acid disinfectants are highly corrosive. Follow manufacturer's recommendations for fiberglass showers.
- Dry all surfaces carefully to prevent slips and falls.

3.7 Final Spot Cleaning

Do final spot cleaning on the places that are most often touched in a restroom. Spray robbing alcohol on the handles of urinals, toilet seats, doors and towel dispensers as a final precaution to reduce cross-contamination.

3.8 Wet Mopping

- Wet mop the floor with a disinfectant solution starting from the farthest corner of the room working toward the exit door. Go along the baseboards first to keep them from getting splashed.
- Apply the solution from the mop bucket moderately with special attention given to toilet areas, urinals and sinks.
- Be sure to change the solution once it becomes visibly diluted or contaminated with soil; or at the very least after every three restrooms regardless of visible contamination.

4 GUIDELINES FOR CLEANING OFFICES AND LECTURE

ROOMS

Daily cleaning and maintenance of a building is essential to support its daily

operations. Dirty floors, dusty work surfaces, and overflowing trash cans contribute to a poor appearance and create a negative impression on administrators, students, lecturers, and guests.

Building service staff, and other janitorial workers provide an important service that, the institution depends upon. Clean facilities protect the health and safety of building occupants, promote productivity, and create a positive impression.

It is highly recommended that buildings institute a routine maintenance program that outlines the specific cleaning tasks required in every area of the facility. While each maintenance program is specifically tailored to the individual facility, all cleaning programs shall follow the general guidelines below:

4.1 Cleaning Guidelines for lecture rooms and offices

- Clean from top to bottom. Start by dusting or vacuuming ceiling corners and edges as well as light fixtures. Bring all the dirt and dust to the lowest level.
- Sweep room thoroughly
- Clean from dry to wet. Begin by dusting surfaces and dry mopping or sweeping before using spray-and-wipe products or wet mopping.
- Clean from cleanest to the dirtiest. Tackle the cleanest areas first.
- Use a pattern when cleaning. For example, work clockwise around the room when dusting or wiping walls. This ensures you won't miss anything.
- When mopping, start from the farthest corner and work your way toward the door. Do not mop yourself into a corner.

General Rule: Lecture halls shall be swept in the morning and tidying up shall be done after every lecture.

5 GUIDELINES ON CLEANING KITCHENS, CANTEENS,

AND CAFETERIA

Kitchens and canteens have a direct impact on staff and students' health and morale, so it is essential that they be kept clean and well maintained. Dirty kitchens and canteens often contribute to poor morale and a low level of respect for the College. Our canteens double as customer lounges, further necessitating the need for the space to be as clean as possible.

5.1 Kitchen and Canteen Cleaning and Maintenance

Many kitchens, canteens, or lounges are equipped with many or all of the following items: microwave, refrigerator, vending machines, water cooler, and coffee makers. The areas around these appliances and machines are often the messiest parts of the room. You can expect to see food and liquid spills, discarded wrappers, cups, straws, napkins, etc.

In addition to being unsightly, the messy areas of a kitchen or canteens can present a safety hazard. Wet floors are slip hazards, and dirty countertops and food-handling surfaces can be breeding grounds for bacteria, mould, and insects.

It is essential that all facilities with a kitchen, break rooms, or lounge area institute a regular maintenance schedule that requires these areas to be cleaned on a daily basis.

5.2 Four Tips for kitchen cleaning

Start at the top and work your way down

Begin by dusting ceilings, air conditioning vents, and oven hoods. The goal is to bring any dust and dirt from the highest level down to the floor where you can sweep and mop it away.

Clean from dry to wet

Begin with dust mopping surfaces and floors, removing dust, dirt, crumbs, and other debris. Next, follow up with spray-and-wipe cleaning and wet mopping to remove residues and spills.

• Don't forget about the inside of appliances

Clean the inside of microwaves, toaster ovens, and refrigerators.

• Work toward the door. Don't clean yourself into a corner! Start at the far end of the room and clean in the direction toward the door.

5.3 Detailed Cleaning Tasks

- Put up appropriate signs
- To clean higher fixtures such as lights or vents and windows, wipe them down with a neutral cleaner such as aerosol cleaners
- Spray and wipe the insides of trash and sanitary napkin receptacles with disinfectant when they become visibly soiled.
- Use a product specifically designed for graffiti removal to remove any graffiti. Be sure to read the label before using the product.
- Cleaning grout on tile floors needs to be done periodically and requires special equipment.

5.4 Cleanup Procedures for Your Equipment

- When finished with all necessary procedures and all surfaces are dry, remove posted signs.
- Wash all equipment thoroughly.
- Properly discard mop bucket solutions when cleaning is complete at the end of the day.
- Hang mops to dry in appropriate places.

5.5 Summary

- Be sure to practice good safety precautions:
- Wear the proper personal protective equipment (PPE).
- Post caution signs before cleaning.
- Review your supply checklist and stock your cart.
- Know your daily procedures and the routine in which to perform them.
- Remember these three rules when cleaning and disinfecting a restroom:
 - ✓ Always clean top to bottom
 - ✓ Clean from dry to wet
 - ✓ Work towards the exit door
- Know your detail and periodic cleaning procedures and when to perform them.
- Be sure to always clean up and wash your equipment at the end of your shift or at the end of a workday.
- Report any damaged or non-functioning dispensers, fixtures, or equipment to proper personnel.

6 GUIDELINES FOR HOSTEL CLEANING

6.1 Prepping the Restroom

Gather all of the necessary cleaning supplies and load them onto your janitorial cart. All mops and dusters used in this area shall be properly marked to avoid being used in other areas. Make sure the washroom is empty and then post the appropriate caution/safety sign. Move your janitorial cart into the restroom, or for smaller areas, leave it blocking the entrance to the restroom.

Leave the door propped open, so potential users can see that you are in there cleaning. The following instructions are based on the assumption that each restroom will get some sort of care daily. For those restrooms that do not need that

kind of upkeep, you can adjust the schedule accordingly.

6.2 Daily Cleaning Procedures

- Visually check the appearance of the restroom. Pick up any debris on the floor, around the sink or toilet/urinal areas.
- Check garbage cans and recycling bins. If they are full or nearly full, remove the trash can liner and replace with a new one.
- Check soap, toilet paper, and paper towel dispensers to make sure they are properly stocked.

6.3 Weekly Cleaning Procedures

- Clean and scrub all interior surfaces of toilets/urinals with a toilet bowl cleaner. With a disinfectant, wipe down all exterior surfaces, including toilet seats.
- Wipe down and disinfect all surfaces, including door handles, light switches, countertops, partitions and dispensers.
- Clean all mirrors with a glass cleaner to remove any fingerprints and marks.
- Use a germicidal/acidic surface cleanser to wipe down the sinks and faucets and handles.
- Dust mop, sweep and wet mop the floors, taking care to keep the mops, mop buckets, and solutions used as bathroom only items. Avoid cross-contamination with other areas of the facility at all costs.

6.4 Monthly Cleaning Procedures

- Dust all out of the way areas, including the tops of doors, shelves, partitions, dispensers, hand dryers and air vents.
- Replace all metered aerosol deodorisers and air fresheners.
- Replace the urinal blocks as necessary.
- Check to make sure all drains are properly draining. If not use a drain cleaner to remove all clogs.

6.5 Clean Up

Remove all trash bags and place in the dumpster. Do not remove the caution/restroom closed signs until all work is finished and all surfaces, including the floors are completely dry. Rinse out and clean the mop buckets, mops, and rags that were used.

7 RESIDENCES

The Environmental and Sanitation Department shall be responsible for:

- Cleaning common areas at the College's residences
- Regular weeding of the staff residence surroundings
- Daily removal and emptying of all storage bins at the front of each block.

8 SANITATION GUIDELINES FOR OUTER PARAMETER (BEHIND THE COLLEGE'S WALLS)

- Assign cleaners and sanitary workers to routinely clean and empty waste bins
- Engage with KMA to evacuate illegal hawkers along the College's wall stretch
- Maintain a clean fenced perimeter around the forecourt of the Stores/Office Complex at all times

9 POLICY ON PERSONAL PROTECTIVE EQUIPMENT (PPE) FOR ENVIRONMENTAL SERVICES STAFF

PPEs protect Environment, Health and Sanitation (EHS) workers from getting into direct contact with hazardous substances. It is therefore mandated that the following shall guide the College in its quest to protect EHS staff:

- Management shall provide PPEs for environmental staff at the beginning of every academic year. This shall include but shall not be limited to safety wear such as overcoats, overalls, safety boots, hand gloves etc.
- It is mandatory for all staff including supervisors to wear their respective PPE's before the start of work.
- Management shall not be liable to pay damages to any injured staff as a result of negligence to put on PPE's before the commencement of work.
- Management shall train environmental staff on how to use PPEs and the need to use them

10 WASTE MANAGEMENT

10.1 Solid Waste Management (Waste Segregation Model)

The per capital waste generation rate on campus has increased with the growing student and staff population. This poses a great challenge to the management of solid waste on campus. The source separation of solid waste will be implemented as one of the strategies of managing solid waste on campus.

Figure 1

Waste segregation strategy for the St. Louis College of Education Campus

The institution shall be guided by the M in T Policy (i.e. Material in Transition):

Where the waste generated is 'viewed' as a resource through the waste value chain. The pivot for this strategy shall be rested on the 3Rs (Reduce, Reuse and Recycle).

10.1.1 Implementation of the M in T Policy

- Staff and Students
- Piloting:

This will be done at the following venues:

- Administration Block
- Dining Hall/Cafeteria
- Halls of Residence
- Student Lecture Halls
- Lecturers' Office

10.1.2 Guidelines for Waste Segregation

Waste Segregation shall be done with the aid of special waste segregation bins. The waste segregation bin units shall consist of four (4) bins. The segregates shall include organic, plastic, papers, glass and cans. The bins shall be colour-coded to reflect a specific solid waste characteristic. The segregation shall be implemented at four major levels, namely:

10.1.2.1 Academic Areas:

These comprise the administrative offices, lecture halls/theatres, laboratories, workshops, offices and common areas. Within this zone, the waste bins shall be situated at common areas, e.g. the corridors and open spaces which are easily accessible.

10.1.2.2 Hostels:

Each floor of the hostels shall be provided with four sets of coloured 24L waste bins for each waste characteristic within the waste stream.

10.1.2.3 Residence:

This consists of the block of flats and the existing bungalows. Each flat and bungalow shall be supplied with colour-coded waste segregation bins. Occupants of the various flats and bungalows shall use the colour-coded waste bins and/or liner bags for the segregation of waste. At transfer point located at the backyards of the

various flats and bungalows, the waste shall be emptied from liner bags into bins with matching colours.

10.1.2.4 Services Providers:

These consist of the canteen, the services offered within SRC secretariat and other food joints on campus. This category shall be supplied with 110 liter colour-coded wastebins for the segregation of their solid waste. They shall be surcharged with the cost of the bins provided.

10.1.3 Procedure for Building a Stacked Compost System

Materials: Five used Lorry Tyres labelled A, B, C, D and E, organic household waste tools: A sharp pointed kitchen knife, shovel and mattock

- 1. Get two sets of five (5) stacks of used lorry tyres and wash thoroughly
- 2. Place the biggest (base) tyre at the place to build the stack and trace the inner and outer circles
- 3. Dig a hole of depth of 2 feet / 60 centimeters of the inner circle with shovel and mattock
- 4. Cut one side wall of all the tyres with the sharp pointed knife to prevent water from collecting and breeding mosquitoes.
- 5. Position the biggest (base) tyre directly over the dug hole.
- 6. Stack the rest of the tyres on top of each other except the last (5th) one.
- 7. Cut small holes (3 or 4) on top of the 5th tyre before putting it on to allow the Black Soldier fly get into the system and lay their eggs

10.1.4 Composter Process

- 1. Start adding the kitchen waste to the composter (Tyre A)
- 2. When the Tyre A is 3/4 full, switch the Tyres A and B and start adding the materials in Tyre B which is now at the top.
- 3. When the Tyre B gets filled 3/4 the ingredients in Tyre A has shrunken.

- 4. You can again switch the Tyres A and B
- 5. When the Tyre B gets almost filled 3/4, empty it to Tyre C
- 6. The final contents of Tyre C starts shrinking and so more materials can be added from the Tyre B to Tyre C.
- 7. When Tyre C gets filled 3/4 empty the Tyre C before starting to fill the Tyre C again.
- 8. At this point the contents of Tyre C has decomposed completely.
- 9. Continue the process until you get to Tyre E and Tyre E gets filled
- 10. Sieve the contents of Tyre E until a good non-smelling manure (compost) is obtained.
- 11. The larger pieces that are left after sieving can be added to the Tyre at the top for further decomposing.
- 12. Keep the compost little damp by sprinkling water in the upper Tyre occasionally. The whole process takes around 90 days.