MASONRY

NTQF Level -II

Learning Guide #68

Unit of Competence: - Erect Brick and Block Structures

Module Title:- Erecting Brick and Block Structures

LG Code:- **EIS MAS2 M13 LO7 LG-68**

TTLM Code:- **EIS MAS2 M13 TTLM 0919v1**

LO7:- Clean up

Instruction Sheet 7	Learning Guide #-68

This learning guide is developed to provide you the necessary information regarding the following **content coverage** and topics –

- Clearing work area
- disposing , reusing or recycling materials
- cleaning, checking, maintaining and storing Plant, tools and equipment

This guide will also assist you to attain the learning outcome stated in the cover page.

Specifically, upon completion of this Learning Guide, **you will be able to –**

- Clearing work area
- disposing , reusing or recycling materials
- cleaning, checking, maintaining and storing Plant, tools and equipment

Read the specific objectives of this Learning Guide.

1. Follow the instructions described below 3 to 5.
2. Read the information written in the information “Sheet 1, Sheet 2 and Sheet 3” **in page,3 , 7 and 11** respectively.
3. Accomplish the “Self-check 1, Self-check t 2 and Self-check 3 **in page, 5, 9 and 15** respectively
4. If you earned a satisfactory evaluation from the “Self-check” proceed to “Operation Sheet 1, Operation Sheet 2 and Operation Sheet 3 ” **in page 18,19 and 20**
5. Do the “LAP test” **in page 21**

Information Sheet-1	Clearing work area

1.1 Performing good housekeeping

Good housekeeping involves every phase of industrial operations and should apply throughout the entire premises, indoors and out. It is more than mere cleanliness. It requires orderly conditions, the avoidance of congestion, and attention to such details as an orderly layout of the whole workplace, the marking of aisles, adequate storage arrangements, and suitable provision for cleaning and maintenance.

Efficient production and a good working environment are complementary. The elimination of inefficiencies and accident hazards caused by unfavorable conditions in and about the workplace is essential in getting the job done properly and safely. The attention to these important details—which may be overlooked when management's attention is concentrated upon such amenities as good cloakrooms, canteens, rest rooms, recreational facilities, etc.—is widely referred to as "good housekeeping

The good housekeeping checklist Check off your housekeeping program against this checklist. Better still, make a more comprehensive list of your own.

Machinery and Equipment

(1) Clean and free of unnecessary material.

(2) Free of unnecessary dripping of oil or grease.

(3) Area around machines clean and free of rags, paper, etc.

(4) Lockers and cupboards clean and free of unnecessary material both on top and inside.

(5) Benches and seats clean and in good condition.

(6) Drinking fountains clean.

(7) Toilet facilities clean and well ventilated.

(8) Proper guards provided and in good condition.

(9) First-aid facilities and equipment fully stocked and in clean condition.

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Stock and Material	Tools
(1) Properly piled and arranged	(1) Properly arranged in place.
(2) Kept in storage areas	(2) Free of oil and grease.
	(3) Inspected and maintained in good order.
	(4) Tool rooms and racks in clean and orderly condition

Ground

(1) Yard and building surrounds free of refuse such as fruit peelings, scrap, wood, iron, etc.

(2) Grounds kept free of weeds and overgrown vegetation.

(3) Wastes and refuse removed frequently.

Good housekeeping helps to create:

- Better working conditions
- Safer workplaces

Self-Check 1	Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

Write true if the statement is correct or false if the statement is wrong (2point each)

1. Good housekeeping involves every phase of industrial operations

2. The good housekeeping checklist Check off your housekeeping program against the checklist.

3. The elimination of inefficiencies and accident hazards caused by unfavorable conditions

Note: **Satisfactory rating - 5 & above points** **Unsatisfactory - below 5 points**

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____ Date: _____

Answer Questions

1. _____
2. _____
3. _____

Information Sheet-2	disposing , reusing or recycling materials

Disposing, recycling and re-using waste materials

- All excess material should not be wasted, but used or safely removed from site according to appropriate legislation.
- Identify the waste types that are likely to be produced and aim to reduce the amount of waste as much as possible, through identifying routes to reuse or recycle materials.
- -Control access to storage areas to minimise risk of theft or damage.
- Set up a dedicated store for timber, from which workers can re-use supplies
- .-Store any materials away from sensitive locations in fenced off areas.
- -Label all waste storage and skips, detailing the type of waste.
- -Employ a just-in-time policy to deliver materials in order to reduce the storage time on site.
- Consider using recycled materials and recycle any materials used on site rather than disposing of them (including timber, Brick Block) CIRIA provides lists of recycled materials that companies will accept.

Reduce

During the design and manufacture of a product, try to use fewer materials by changing the design. Using less hazardous materials.

Reuse

Checking, cleaning, repairing, refurbishing, the whole or spare parts of a product, so that such product can be reused for a longer time which can reduce the waste generation

Recycle

In some situations, materials cannot be reused. By transforming wastes into new substance or products, which includes composting if it meets quality protocols.

Recovery

Conversion of non-recyclable waste materials into useable heat, electricity, or fuel through the process of anaerobic digestion, incineration and etc., it can reduce the waste finally discharging to the landfills.

Disposal

It is the least priority option, when the wastes cannot be treated by the above four option, then it will discharge to landfills or incineration without energy recovery.

Self-Check 2	Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

Write true if the statement is correct or false if the statement is wrong (2point each)

1. Reusing is a system can reduce the waste generation and the tools used for a longer time.

2. Recycle is transforming wastes into new substance or products.

3. All excess materials should be waste

Note: **Satisfactory rating - 5 & above points** **Unsatisfactory - below 5 points**

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____

Rating: _____

Name: _____ Date: _____

Answer Questions

1. _____
2. _____
3. _____

Information Sheet-3	cleaning, checking, maintaining and storing Plant, tools and equipment

3.1 cleaning Plant, tools and equipment

Cleaning tools may be the last thing to do after a day of work, but it's essential for keeping tools in good shape. And it really only takes a few seconds per tool. It's well-worth the time spent doing a little cleaning to save the time spent repairing a tool (or the money spent replacing it) later.

Cleaning tools doesn't have to be difficult at all if it is prepared:

- **Hand tools**: You can clean most hand tools by simply wiping them down with a rag. If they're dirty, don't be afraid to give them a good wash with soap and water. Just dry them well afterward. Spritz metal with a light coat of WD-40 and wipe with a clean rag (you really just want to leave a light film on them to help keep the rust away). Wipe wooden handles with a rag dampened with a little linseed oil.
- **Power tools**: Power tools are a little trickier to clean. First, make sure the tool is unplugged before you clean it. Next, you'll want to get all the dust off. An air compressor can be really useful for that. Wipe down the surface of the tool and then lubricate any moving parts. Machine oil is a fine choice for this, but you should also check the manual that came with the tool to see if they have better recommendations. While you're at it, don't forget that your toolboxes, belts, and bags will need some care as well. Clean out your toolboxes every once in a while by emptying them and wiping them down. If you've got leather belts and bags, you'll want to condition the leather once in a while. I keep a tub of Obenauf's Heavy Duty LP around and

it's always worked great. For bags and belts not made of leather, a quick wash should do the trick.

3.2 Checking Plant, tools and equipment

Before and after the construction job always take some time to inspect and repair your tools. This will ensure your tools are safe to use and will make them last longer.

It also helps to see a sign of damage and any faulty functioning.

In case of damage, it is wise to repair them immediately or take them to a repair shop to avoid last minute hassle.

Some of the common features you may focus on while inspecting are explained below:-

Rust and corrosion: It may be unsafe to use a tool depending on its rust or corrosion level.
You can correct this by removing the rust on your own in case the damage is not that great.

If the damage is great, you might consider replacing the tool.

Insulation that is worn out: You can use electrical tape to cover wires that are exposed or worn out just in case the problem is small.
The best way to prevent electrical hazards, in this case, is to call an expert to help you repair the tool.

Housing on power tools: Avoid using a power tool whose housing has a crack no matter the size of the crack.
Always seek the assistance of a professional when you want the power tool repaired if you are not an expert.ill have to replace it.

Cracked handles: Take care of loose, splintered or cracked handles to prevent injuries to you or any other worker. Sand the handles that are not badly splintered down.
You can sand the tool against the grain if it is very rough and later on sand it with the grain until it becomes smooth, free from any splinters or chips.

Use linseed oil to coat it after finishing. But in case the tool has a big crack or heavily splintered you will have to replace.

3.3 Maintaining plant, tools and equipments

Proper tools and equipment are essential for the effective operation of any civil works site. Equipping the construction site with the correct tools and equipment plays an essential role in achieving timely and good quality results. For every construction activity there is an optimal combination of tools, equipment and labor. Depending on the nature and content of the works, the technical staff needs to know which tools to use and how to effectively combine them with manual labor.

Once on site, equipment requires trained operators and supervisory staff who are proficient in its operation and maintenance.

Faulty equipment is a common reason for delays on construction sites. A major responsibility of the project management is to ensure that tools and equipment are maintained in a good condition and are readily available when required for the various work activities.

For certain construction activities, particularly hauling of materials and compaction, high labor productivity and good quality of work may be difficult to achieve using only manual labor and hand tools. In such cases, using light construction equipment can increase the efficiency of work.

Site supervisors need to know how to use the tools and how to operate the equipment in order to secure good work progress and the expected high quality results. It is also

important that staff know the full potential, as well as the limitation, of the use of manual and equipment-based works methods.

Finally, tools and equipment need regular maintenance, requiring good workshop facilities, a reliable supply of spare parts and qualified mechanical staff.

3.4 storing tools and equipment

Toolboxes also make for great tool storage, offering the primary advantage of portability. While some people opt to store all their tools in toolboxes, for most, the toolbox is a way of carrying around your most-used tools while leaving the bulk safely stored on pegboards, shelves, or drawers. No matter what you're doing, though, you can build a well-equipped toolbox for every level of DIY needs.

Rust is public enemy number one when it comes to tools. To avoid rust when storing your tools:

Keep your tools in a dry place. It seems obvious, but garages and basements and other enclosed spaces can have humidity issues, especially if they are not heated or air-conditioned. If you keep your tools in a location like this, especially if you keep them out on shelves or peg boards, consider investing in a dehumidifier to keep the dampness down. They're not terribly expensive, especially compared to your investment in your tools, and most let you set a humidity level so the dehumidifier turns on only when it needs to.

Store power tools in their original cases. Unless you have a climate-controlled workshop, your best bet for storing power tools in the hard plastic cases they usually come with. Not only are they better-protected from humidity, they're just better-protected in general.

Use silica gel packs or rust collector: The silica gel packs that come in lots of packaging are great at keeping moisture at bay. Toss them in drawers or toolboxes and they can help keep rust away. You can also buy rust inhibitors for the same purpose and even anti-rust liners for drawers and shelves.

Self-Check 3	Written Test

Directions: Answer all the questions listed below. Use the Answer sheet provided in the next page:

Write true if the statement is correct or false if the statement is wrong (2point each)

1. Faulty equipment is a common reason for delays on construction sites
2. Site supervisors never check how to use the tools and how to operate the equipment in order to secure good work progress.
3. Wipe down the surface of the tool and then lubricate any moving parts
4. The purpose of storing tools are to avoid rust:

Note: **Satisfactory rating - 5 & above points** **Unsatisfactory - below 5 points**

You can ask you teacher for the copy of the correct answers.

Answer Sheet

Score = _____
Rating: _____

Name: _____ Date: _____

Answer Questions

4. _____
5. _____
6. _____

Operation Sheet 1	techniques of Clearing work area

Follow the techniques of Clearing work area

Procedures:

Step 1- wear personal protective clothes

Step 2- select the tools which are appropriate that work

Step 3- check the tools weather it is functional or not

Step 4-select the materials which are necessary

Step 5 based on these Procedures do the following lap test

Operation Sheet 2	techniques of disposing , reusing or recycling materials

Follow the techniques of disposing, reusing or recycling materials

Procedures:

Step 1- wear personal protective clothes

Step 2- select the tools which are appropriate that work

Step 3- check the tools weather it is functional or not

Step 4-select the materials which are necessary

Step 5 based on these Procedures do the following lap test

Operation Sheet 3	techniques of cleaning, checking, maintaining and storing Plant, tools and equipment

Follow the techniques of cleaning, checking, maintaining and storing Plant, tools and equipment

Procedures:

Step 1- wear personal protective clothes

Step 2- select the tools which are appropriate that work

Step 3- check the tools weather it is functional or not

Step 4-select the materials which are necessary

Step 5 based on these Procedures do the following lap test

LAP Test 6	Practical Demonstration

LAP Test -6

Name: _____ Date: _____

Time started: _____ Time finished: _____

Instructions: Given necessary templates /guide , workshop, tools and materials you are required to perform the following tasks within 4:00 hours

Task 1. Clean work area

Task 2. reuse , recycle or dispose, materials

Taske 3 clean, check, maintain and store Plant, tools and equipment

1. https://workhabor.com/take-care-construction-tools/
2. ↑ https://www.cnet.com/how-to/ways-to-protect-and-fix-cords-around-the-home/
3. ↑ https://makezine.com/2016/09/15/skill-builder-lubricants/

This learning guide prepared by:

No	Name of trainer	Qualification	Region	E-mail
1	Dereje Teshome	Construction technology & management(MSC)	Dire dawa	Derat8@gmail.com
2	Haymanot Kefale	Construction technology (BSc)	Benishagul gumuz	Haymanot281@gmail.com
3	Jemal Abdulahi	Construction technology (BSc)	Harari	
4	Mohammed Hassen	Construction technology (BSc)	somali	mohammedhassen286@gmail.com
5	Muluken Solomon	Construction technology & management(MSC)	Oromia	Mulecot99@gmail.com
6	Solomon Eshetu	Construction technology (BSc)	Amhara	Natansolomon10@gmail.com
7	Zelallem Taye Gedifew	ANRST tvet office curriculum expert	Amhara	tayezelalem22@gmail.com
8	Addisu wodajo	Anrst tvet office curriculum expert	Amhara	Addalvy2010@gmail.com