



BAR BENDING AND CONCRETING

Level-II

Learning Guide-21

Unit of Competence: Apply basic leveling

Procedures

Module Title: Applying basic leveling

Procedures

LG Code: EIS BBC2 M06 LO3-LG-21

TTLM Code: EIS BBC2 TTLM 1019v1

LO-2: Cleanup work areas

Page 1 of 11	Author: FEDERAL TVET AGENCY	Bar bending & Concreting Level II	Version: 1 Date: October 2019
--------------	--------------------------------	--------------------------------------	----------------------------------



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

- Cleaning Work area
 - ✓ Disposing of, re-using and recycling waste materials
- Cleaning, checking and maintaining plants, tools and equipment's

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 –

- Work areas are cleared and materials disposed of, reused or recycled in accordance with legislation, regulations, and codes of practice and job specification.
- Tools and equipment are cleaned, checked, maintained, including leveling device operator maintenance, and stored in accordance with manufacturer recommendations and standard work practices

Learning Instructions:

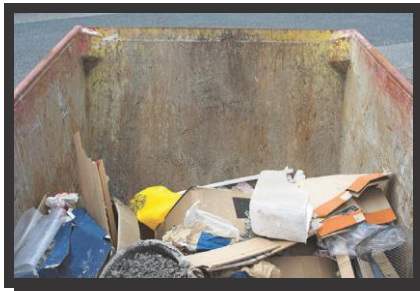
1. Read the specific objectives of this Learning Guide.
2. Follow the instructions described below 3 to 6.
3. Read the information written in the information “Sheet 1 and Sheet” 2 in **page- 3 and 7** respectively.
4. Accomplish the “Self-check 1, Self-check t 2” in **page -4 and 8** respectively.
5. If you earned a satisfactory evaluation from the “Self-check” proceed to **module 7**



1. Clean work area

When you complete any task on a building site, you must clear your work area to ensure the safety and convenience of your workmates, other construction teams and the public. This process includes:

- recycling or disposing of any waste material
- cleaning, maintaining and storing equipment
- safely filing or storing plans, documents and records
- cleaning up the area.

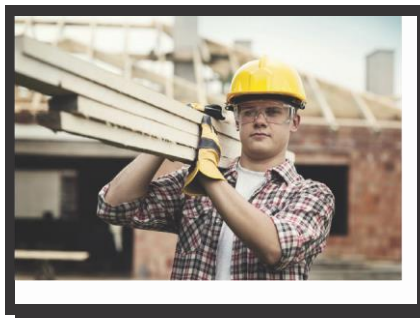


2. Relevant legislation, regulations and job specifications

State and territory Regulations usually require a site to be kept and left in a clean, safe condition. The tasks involved in setting out by level don't produce a lot of clutter or rubbish but all construction workers must know and follow the site policies and procedures for maintaining a tidy, organized and

Safe workplace including:

- clearing potential safety hazards
 - safe waste disposal
 - recycling of materials
 - Maintenance and storage of tools and equipment.
-
- Inspection shall be carried out daily to ensure that sufficient workmen/women, tools and facilities are provided to maintain the standard of hygiene.
 - Final cleaning of the site and removal of all temporary facilities shall be carried out to approval at completion of works.





1.1. Dispose, Reuse and Recycle waste materials

1.1.1 Definition

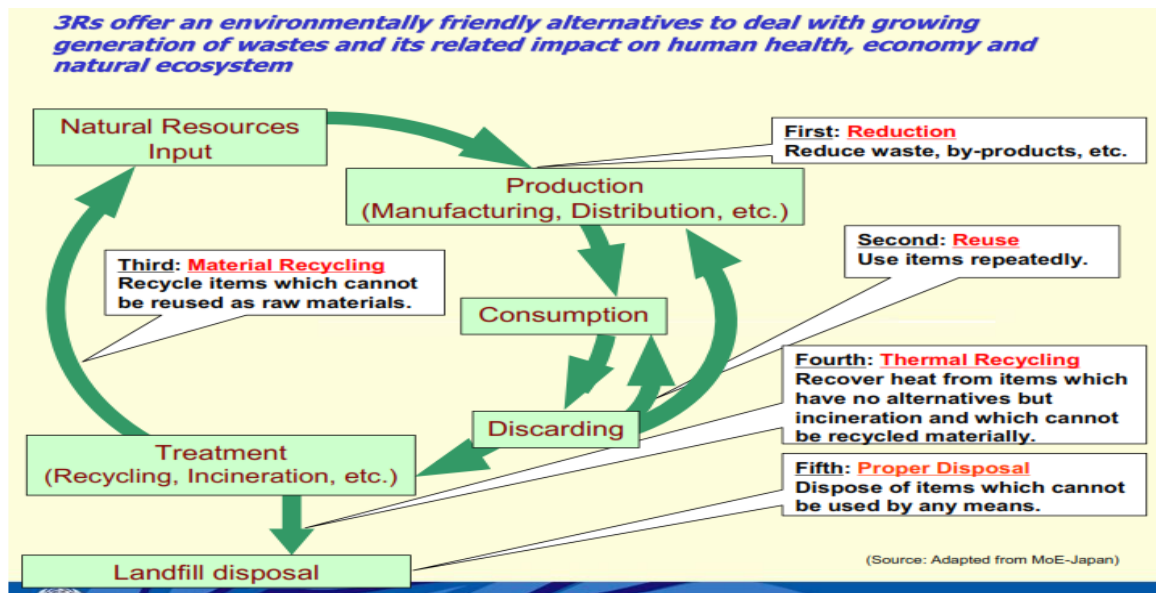
Disposing Removing and destroying or storing damaged, used or other unwanted domestic, agricultural or industrial products and substances

Recycling means turning an item into raw materials which can be used again, usually for a completely new product. This is an energy consuming procedure.

Reusing refers to using an object as it is without treatment. This reduces pollution and waste, thus making it a more sustainable process.

1.1.2 Purpose

When looking into **environmental sustainability**



2.2. Advantages of 3R'S

Recycling is the process of collecting and processing materials that would otherwise be thrown away as trash and turning them into new products. Recycling can benefit your community and the environment.



Recycling reduces waste disposal by transforming useful materials such as plastic, glass and paper into new products

The reusing process is not just about re-purposing materials, but the object as it is. This includes buying and selling used goods and repairing items rather than discarding them. Reusing is better than recycling because it saves the energy that comes with having to dismantle and re-manufacture products. It also significantly reduces waste and pollution because it reduces the need for raw materials, saving both forests and water supplies.

1.1.3 Waste management

Construction projects create a lot of waste including general rubbish and used damaged or surplus materials. All waste must be disposed of appropriately.

- Non-degradable substances and organic material like food and vegetation should be disposed of at a landfill site.
- Left-over materials in good condition and in useable sizes or quantities can be salvaged.
- Used materials that can be repurposed or reprocessed can be recycled.

Note: Hazardous waste such as asbestos must be handled by removal specialists.



There are laws which outline how waste materials should be dealt with and large fines can be issued if they're not followed. Companies and contractors usually develop policies and procedures to make sure that everyone on the building site complies with these requirements.

Therefore, Waste that cannot be reused or recycled in some form eventually finds its way to **disposal**. This disposal includes landfills, but an increasing number of municipalities have elected to divert waste into resource recovery. These recovery methods use the waste to generate electricity or produce raw materials for industry.

Page 5 of 11	Author: FEDERAL TVET AGENCY	Bar bending & Concreting Level II	Version: 1 Date: October 2019
--------------	-----------------------------	-----------------------------------	----------------------------------



Self-Check 1	Written Test
---------------------	---------------------

Instructions: Answer all the questions listed below. Illustrations may be necessary to aid some explanations/answers. Write your answers in the sheet provided in the next page.

1. Why you apply clean up rules to work area? (5 points)
2. What are the advantages of applying 3R's for environmental sustainability? (5 points)

Note: Satisfactory rating - 5 points

Unsatisfactory - below 5

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

1. _____



Information Sheet-2	Cleaning, checking and maintaining plants, tools and equipment's
----------------------------	-------------------------------------------------------------------------

2.1 Maintenance of tools and equipment

Tools must be checked, maintained or, if necessary, repaired when a job is completed to ensure they:

- Remain In A Good Working Condition
- Are Safe To Use
- Are Ready For The Next Project.

Regular maintenance helps to preserve the quality of the tools, keep them safe and extend their life. Doing a little maintenance each time you complete a job or project can prevent costly and time-consuming repairs or replacement.



You should complete the following procedures as routine maintenance at the end of every task;

1. Wipe all tools to clear away dust or debris, and remove substances like grease or sap.
2. Pay particular attention to tools that have been used in wet or damp conditions.
3. They should be cleaned with an oily rag to prevent rust and, if rust exists, it should
4. be removed with steel wool or a wire brush.
5. Sharpen blades and replace damaged or worn components.
6. Lubricate moving or adjustable parts of tools to allow smooth, continuous operation. Lubrication reduces friction between moving parts, helps them to last longer and makes the machine more energy efficient.
7. Store tools and equipment properly so that they're protected against weather and theft, easy to find when needed and not a hazard to yourself, other

Page 7 of 11	Author: FEDERAL TVET AGENCY	Bar bending & Concreting Level II	Version: 1 Date: October 2019
--------------	----------------------------------------	--------------------------------------------------	------------------------------------------



workers or members of the public.

2.2 Clearing the site

Keeping the site tidy is an essential part of maintaining a safe workplace. Tools, equipment and materials are all potential hazards to site workers and the public and should always be properly organized and stored when they're not being used. The pegs, pickets, string lines and profiles you place during a leveling task can be safety hazards and should be removed once there's been sufficient progress on the construction, and the position, size and shape of the building are well established.



2.3 Dos and don'ts of plant and equipment maintenance

Do...

- Ensure maintenance is carried out by a competent person (someone who has the necessary skills, knowledge and experience to carry out the work safely)
- Maintain plant and equipment regularly – use the manufacturer's maintenance instructions as a guide, particularly if there are safety-critical features
- Have a procedure that allows workers to report damaged or faulty equipment
- Provide the proper tools for the maintenance person
- Schedule maintenance to minimize the risk to other workers and the maintenance person wherever possible
- make sure maintenance is done safely, that machines and moving parts are isolated or locked and that flammable/explosive/toxic materials are dealt with properly

Don't...

- Ignore maintenance

Page 8 of 11	Author: FEDERAL TVET AGENCY	Bar bending & Concreting Level II	Version: 1 Date: October 2019
--------------	-----------------------------	-----------------------------------	----------------------------------



- Ignore reports of damaged or unsafe equipment
- Use faulty or damaged equipment

2.4 Dos and don'ts of machinery safety for workers

Do...

- Check the machine is well maintained and fit to be used, ie appropriate for the job and working properly and that all the safety measures are in place – guards, isolators, locking mechanisms, emergency off switches etc.
- Use the machine properly and in accordance with the manufacturer's instructions
- Make sure you are wearing the appropriate protective clothing and equipment required for that machine, such as safety glasses, hearing protection and safety shoes

Don't...

- Use a machine or appliance that has a danger sign or tag attached to it. Danger signs should only be removed by an authorized person who is satisfied that the machine or process is now safe
- Wear dangling chains, loose clothing, rings or have loose, long hair that could get caught up in moving parts
- Distract people who are using machines
- Remove any safeguards, even if their presence seems to make the job more difficult

Page 9 of 11	Author: FEDERAL TVET AGENCY	Bar bending & Concreting Level II	Version: 1 Date: October 2019
--------------	--------------------------------	--------------------------------------	----------------------------------



Self-Check -2	Written Test
----------------------	---------------------

Instructions: Answer all the questions listed below. Illustrations may be necessary to aid some explanations/answers. Write your answers in the sheet provided in the next page.

1. Discuss dos and don'ts of tools, equipments and machineries? (10points)

Note: Satisfactory rating - 10points

Unsatisfactory - below 10

Answer Sheet

Score = _____

Rating: _____

Name: _____

Date: _____

Short Answer Questions

1. _____



REFERENCE

C. R. C. Mohanty, UNCRD ;9 May 2011,

REDUCE, REUSE AND RECYCLE(3R) AND RESOURCE EFFICIENCY AS THE BASIS FOR Sustainable Waste Management. New York.

Environment Protection Guidelines for Construction and Land Development in the ACT
retrieved from <https://ginninderry.com/wp-content/uploads/2017/03/EPA-Guidelines-for-Construction-and-Land-Development-ACCESS.pdf>. accessed on Oct 30/2017.

Workplace Housekeeping - Basic Guide; Document confirmed current on June 6, 2014.

Name trainers who prepared the material

N0	Name	Qualification	Region	E.mail
1	Tesfaye Assegidew	MSC in CoTM	SNNPR	tesfayeeassegidew@gmail.com
2	Habtamu wendmagegn	Bsc in Civil Eng	Dire Dawa	Joniyitna9@gmail.com
3	Yazachew Geneti	Msc in CoTM	BGRS	0917858176
4	Gebresilasie Jemal	Bsc	Addis Abeba	Gebrajemal@gmail.com
5	Getachew Mohammed	MSC in CoTM	Amhara	Gerimom07@gmail.com
6	Kibryisfaw Tulema	Bsc in	Somalie	kibrutulema@gmail.com