



## **Carpentry Level I I**

# **Learning Guide-42**

**Unit of Competence: Produce**

**Cement Concrete Casting**

**Module Title: Producing**

**Cement Concrete Casting**

**LG Code: EIS CRP2 M10 LO3-LG-42**

**TTLM Code: EIS CRP2 M10 TTLM 0919v1**

**LO 3: Clean up**



<b>Instruction Sheet</b>	<b>Learning Guide #42</b>
--------------------------	---------------------------

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

- Disposing, reusing and recycling materials
- Maintaining plants, tools and equipment
- Accomplishing necessary documentation

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:

- Dispose ,reuse or recycle and clear Work area and material in accordance with legislation/regulations/ codes of practice and job specification
- Maintain clean, check, Tools and equipment stored in accordance with manufacturers' recommendations and standard work practices
- accomplish Necessary documentation in accordance to workplace procedures

**Learning Instructions:**

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
3. Accomplish the “Self-check 1, Self-check, 2 and Self-check 3” in page -4, 8 and, 13 respectively.
4. If you earned a satisfactory evaluation from the “Self-check
5. Do the “LAP test”



### 1.1. Disposing, reusing and recycling materials

Recyclable materials include many kinds of glass, paper, cardboard, metal, plastic, tires, textiles, batteries, and electronics. The composting or other reuse of biodegradable waste—such as food or garden waste—is also a form of recycling.

Reuse and recycling of C&D materials is one component of a larger holistic practice called sustainable or green building construction. The efficient use of resources is a fundamental tenet of green building construction. This means reducing, reusing, and recycling most if not all materials that remain after a construction or renovation project. Green building construction practices can include salvaging dimensional lumber from the project, using aggregates reclaimed from crushed concrete or grinding drywall scraps for use on site as a soil amendment.

At the end of a building's life, demolition generates large amounts of materials that can be reused or recycled, principally wood, concrete and other types of masonry, and drywall. Rather than demolish an entire building, consider "deconstructing" all or part of the structure. **Deconstruction** is the orderly dismantling building components for reuse or recycling. In contrast to demolition, where buildings are knocked down and materials are either land filled or recycled, deconstruction involves carefully

Taking apart portions of buildings or removing their contents with the primary goal being reuse. It can be as simple as stripping out cabinetry, fixtures, and windows, or as involved as manually taking apart the building frame.

#### ➤ Recycling

Recycling is the process of converting waste materials into new materials and objects. It is an alternative to "conventional" waste disposal that can save material and help lower greenhouse gas emissions. Recycling can prevent the waste of potentially useful materials and reduce the consumption of fresh raw materials, thereby reducing: energy usage, air pollution (from incineration), and water pollution (from landfilling).

Recycling is a key component of modern waste reduction and is the third component of the "Reduce, Reuse, and Recycle" waste hierarchy. Thus, recycling aims at environmental



sustainability by substituting raw material inputs into and redirecting waste outputs out of the economic system.

➤ **Recycling and reuse**



**Recycling involves** the collection of used and discarded materials processing these materials and making them into new products. It reduces the amount of waste that is thrown into the community dustbins thereby making the environment cleaner and the air fresher to breathe



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

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

1. What is Recycling? (3point)
2. What is Deconstruction? (5 points)

**Note: Satisfactory above – 4 out of 8 points Unsatisfactory - below 4 out of 8 point**



**Answer Sheet**

Score = _____
Rating: _____

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Short Answer Questions**

1. \_\_\_\_\_  
\_\_\_\_\_

2. \_\_\_\_\_  
\_\_\_\_\_



### 2.1. Maintaining plants, tools and equipment

Tools and equipment used at the construction site undergo rigorous handling. From initial foundation development, to the final construction of the exterior trim, these tools are exposed to large amounts of dirt and abuse. Proper maintenance of construction tools and equipment is critical to preserving them for future construction jobs. Failure to maintain the tools properly results in unnecessary expense.

Clean the construction tools and equipment after each day's work. While a thorough cleaning is not required each day, a general wipe-down and removal of the heaviest construction dirt is key to extending the life of the tools.

Lubricate air tools and pneumatic equipment before each day's use. Condensation in the airline creates an environment for corrosion inside pneumatic tools. Coating the internal components of these tools with air-tool oil will displace the moisture and prevent tool corrosion.

Inspect and repair all construction equipment and tools at the completion of each job. Make all repairs to the equipment that is necessary for future construction work. This will prevent time being wasted repairing faulty equipment at future construction job sites.

### 2.2. Maintenance of Machinery, Plants and Equipment

Activities of the Institute in this field is used in the electric power industry, ferrous and non-ferrous industry, metal processing industry, coal production, processing industry, etc..

The program of activities includes the following main groups of projects:

- Design and the introduction system of preventive and planned maintenance of plant and equipment,
- Introduction system of maintenance according to the determined state,
- Technological design for workshop for the manufacture and repair of equipment and spare parts for maintenance,
- **Designing, implementing and running system for preventive maintenance planning**

The program includes the following areas of work (projects):

- The organizational structure of the maintenance functions,
- A system of labeling systems and devices,
- System identification of spare parts, materials, tools and equipment,
- System for planning and management of maintenance work,



- Technology of maintenance work,
- Security procedures when performing maintenance,
- System planning and management of spare parts, materials, tools and equipment,
- System planning and management of workshops for the production and repair of equipment and spare parts for maintenance,
- A system of technical documentation management,
- Planning and managing of maintenance costs.

➤ **Introducing of maintenance system according to the technical condition**

The main objective of this program is to rationalize the maintenance process - especially improving technology maintenance. Setting the concept of maintenance is carried out by applying the methods of monitoring:

- Visual monitoring of the plant,
- Monitoring noise and vibration
- Monitoring the thermal state of the facilities,
- Controlling of the state of oil and lubricants
- Monitoring the insulation of electrical machines,
- Monitoring the mechanical stress conditions
- Detection of cracks and other damage of metal parts (magnetic flux, eddy current, ultrasonic, radiography, etc.).





<b>Self-Check -2</b>	<b>Written Test</b>
----------------------	---------------------

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

1. what is tools and equipment?(3point)
2. what is Clean-up.(4 point)

**Note: Satisfactory above – 3.5 out of 7 points Unsatisfactory - below 3.out of 7point**



**Answer Sheet**

Score = _____
Rating: _____

Name: \_\_\_\_\_

Date: \_\_\_\_\_

**Short Answer Questions**

- 1. \_\_\_\_\_  
\_\_\_\_\_
- 2. \_\_\_\_\_  
\_\_\_\_\_



### 3.1. Accomplishing necessary documentation

- **Written documents** are required by formal laboratory standards, including those leading to accreditation. Standards generally require that policies and procedures be written and available. ... Everyone, both inside and outside the laboratory, must know exactly what is being done, and what should be done at each step.

**Documentation** – seems to be a herculean task for a project manager. Project managers are often engaged in delivering high-end complex projects. They are supposed to produce expected deliverables by encountering triple constraints in a project. Hence, the job of a project manager is always challenging with managing lots of activities. With this busy schedule, project manager seldom appreciates documentation part of project management. But, even then, a good project manager never strays from the documentation, while managing a project's nitty-gritty. Reason being, project documentation is equally important for a good project manager.

- **What is documentation?**

Let's review some standard definitions of Documentation,

Oxford dictionary says, "Documentation is the material that provides official information or evidence or that serves as a record, the process of classifying and annotating text"

Merriam Webster defines, "Documentation is the act or an instance of furnishing or authenticating with documents"

Cambridge dictionary states, "Documentation as official papers, or written material that provides proof of something"

Hence, documentation is a set of

- officially written,
- maintained or recorded material
- With information or evidence.



### 3.2. Purpose of documentation

It can serve the purpose of providing proof of traceability or reference of something done.

#### What is Project Documentation?

Project documentation encompasses all the documentation part involved in a project.

It makes

- project expectations and objectives intact;
- project tasks traceable; and
- Helps address any project issues among others.

In some or other way, project management helps project manager save her job. Indeed, she is responsible and answerable for the project status & outcomes. A project manager should be vigilant professional with an eye on tracking project progress.

Project documentation helps to track project progress & performance and to make decisions.

Sometimes, project documentation seems a burden to project management professional. But, a seasoned professional can understand the significance of good documentation. She never undermines the use of documentation throughout a project cycle. Rather, she advocates the usage of good documentation templates. She tries to foster a culture of documenting and recording. Inadequate or no documentation increases the chances of project failure. Also, inadequate documentation can lead to the issues related to inadequate support in a project.

### 3.3. The Importance of Documentation

Here at my Zone we've written several articles related to outsourcing and how to manage small teams for maximum productivity. One of the key factors to accomplish both of these is effective documentation; if you keep track of how all of your processes work and the steps to each task that you set your team, it becomes much easier to both manage and train everyone who is working with you.

Creating effective documentation can seem like a monumental task, and companies often don't know where to get started, which is why we've created this article to walk you through



it. Simply read on for everything you need to know on creating clear and concise documentation for your company.

### **3.4. Why Documentation is Important**

First things first: You're probably wondering exactly why you need to care about documentation in the first place. Most companies will pride themselves on the fact that their staff know how to do their jobs, and seem put off by the tedious process of jotting everything down.

While you may be right in saying that your team knows how to go about their tasks, you shouldn't use that as an excuse to skip documenting. As we said earlier, effective documentation is the building block of team management and plenty of other tasks such as outsourcing, and plays a major role in streamlining your business practices. Here's why:

### **3.5. What is Process Documentation?**

Process documentation is key for any organization. Learn what it is, why you need it, how to do it using our process documentation software and more in this comprehensive guide.

9 min read

### **3.6. What is process documentation?**

A process document outlines the steps necessary to complete a task or process. It is an internal, ongoing documentation of the process while it is occurring—documentation cares more about the “how” of implementation than the “what” of process impact. A business is essentially a group of interrelated processes, and if these processes aren't in writing, breakdowns can occur. Companies have repeatable processes fundamental to their successful operation, thus process documentation serves as a crucial guide for employees and managers to reference



<b>Self-Check -3</b>	<b>Written Test</b>
----------------------	---------------------

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

1. What is Process documentation.(5 points)
2. What is written document (3point?)

**Note:** Satisfactory above\_4 out of 8 points

Unsatisfactory - below 4out of 8 point



## Answer Sheet

Score = \_\_\_\_\_

Rating: \_\_\_\_\_

Name: \_\_\_\_\_

Date: \_\_\_\_\_

1. \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

2. \_\_\_\_\_

\_\_\_\_\_

### List of Reference Materials

1. <https://www.ilo.org/wcmsp5/groups/public/--->

2. <http://www.nzdl.org/gsdImod?e=d-00000>



## **Annex I**

### **Answer keys for learning guide -42**

#### **Answer key**

#### **Self-check**

##### **Information Sheet-1**

- 1, recycling is the process of converting waste materials into new materials and objects.
2. Deconstruction is the orderly dismantling building components for reuse or recycling.

##### **Information Sheet-2**

- 1, Tools and equipment used at the construction site undergo rigorous handling
2. Effective housekeeping can eliminate some work place hazard and Help get job done safely and properly

##### **Information Sheet-3**

- 1 Documentation is the material that provides official information or evidence or that serves
2. Written documents are required by formal laboratory standards, including those leading to accreditation





### The trainers prepare TTLM

No	Name	Region	Qualification level	TVET College	Phone number
Zeyede Tekle	B	Dire dawa	DDPTC	0921153259	zedjesus22@gmail.com
Yibeltal Shitie	B	Amhara	MOTTA PTC	0912455288	yibecon2019@gmail.com
Mihiretu Hambisa	B	Oromia	NEKEMTIE PTC	0910195546	mihambi@gmail.com
Tariku W/Agegne	A	SNNP	DILAPTC	0916512167	mamush572@gmail.com
Fikrie Shiferaw	A	Somale	JIJIGA PTC	0913294412	

### Facilitator

No	Name	Region	TVET Bureau	Email & phone number	Phone no
1	Tilahun Tesfaye	Amhara	Amhara TVED Bureau	Tilahun tesfaye eewnetu@gmail.com	0940651823
2	Abere Dagnaw	Amhara	Amhara TVED Bureau	Aberedagnaw10@gmail.com	09 18 1 41 11
3	Abdulahi Muktare	Somale	Somalia TVET Bureau		0935635068

