Carpentry Level I I

Learning Guide-75

Unit of Competence: Repair and Rectify Concrete structures

Module Title: Repairing and Rectifying Concrete structures

LG Code: EIS CRP2 M16 LO4-LG-75

TTLM Code: EIS CRP2 M16 TTLM 0919v1

LO 4: Clean up

Instruction Sheet	Learning Guide #75

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

- Clearing work area and disposing , recycling & reusing materials
- Cleaning, checking & maintaining 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:

- Clear Work area and dispose , reuse or recycle materials in accordance with legislation/regulations/codes of practice and job specification
- clean, check, maintain Plant, tools and equipment and stored in accordance with manufacturers' recommendations and standard work practices

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, Self-check, in page 4, and, 8 respectively.
4. If you earned a satisfactory evaluation from the "Self-check check proceed to operation sheet
5. Do the "LAP test" 43

Information Sheet-1	Clearing work area and disposing recycling & reusing materials

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

Disposal is the critical last step in handling PPE. Ensure that you remove and discard PPE without causing contamination to yourself, garbage collectors, or the environment. PPE may have an expiration date, while other PPE requires careful inspection – read the PPE manufacturer directions and be diligent about disposal of PPE that will no longer provide protection.

Storage instructions from the PPE manufacturer must be followed for both reusable and disposable PPE. Most PPE must be protected from chemicals, sunlight, extreme temperatures, excessive humidity, and moisture, or the specified shelf-life will be reduced. Disposable, reusable, or limited-use PPE must be discarded if not stored properly.

Self-Check -1	Written Test

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

1. 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.).

Self-Check -2	Written Test

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_____

_____

List of Reference Materials

.

1. https://www.ccaa.com.au/imis_prod/documents/Library Documents/C
2. https://www.houselogic.com/remodel/painting-lighting/concrete-painting/
3. https://www.google.com/search?sxsrf=ACYBGNQHUi0Oo5VLVWER8HU5E4Hiyr5yWw:1569940933971&q=what+is+Applying+co

4.