

# **Assessment Evidence Guide**

## **For**

### **“Crush Plant Operator”**

**Level-3**

**(Summative Assessment)**



**National Vocational & Technical  
Training Commission**

<b>Title of Qualification:</b> National Vocational Certificate Level 3 in Crush Plant Technology “Crush Plant Operator”	<b>CS Code:</b>	<b>Level: 3</b>	<b>Version: 01</b>
<b>Competency Standard Title:</b> Maintain Safety at Crushing Plant Site Work in a Team Environment Perform Computer Applications Manage Inventory of Raw Material for Production Process Operate Crushing Plant Software Prepare Crushing Plant for Production Perform Production on Plant	<b>Assessment Date (DD/MM/YY):</b>  <b>Assessment Time: 5 hrs.</b>		

Candidate Details	Name: .....  Registration/Roll Number: .....
Guidance for Candidate	<p><b>To meet this standard, you are required to complete the following within the given time frame (for practical demonstration &amp; assessment):</b></p> <p><b>Assessment Task 1:</b> Candidate is required to produce specific grade and quantity of crush as per job order after making adjustment in production plan as per material available at site and then shutdown, as per instruction given by assessor.</p> <p><b>And complete:</b></p> <ol style="list-style-type: none"> <li><b>Knowledge assessment test (Written or Oral)</b></li> <li><b>Portfolios at the time of assessment (if any)</b></li> </ol>
Minimum Evidence Required	<p><b>During a practical assessment, under observation by an assessor, you will complete:</b></p> <p><b>Assessment Task 1</b></p> <p><b>Performance Criteria 1:</b> Calculate amount of materials available on site</p> <p><b>Performance Criteria 2:</b> Cross check with the log register</p> <p><b>Performance Criteria 3:</b> Interpret production plan given by plant in-charge</p> <p><b>Performance Criteria 4:</b> Generate demand for material and machinery</p> <p><b>Performance Criteria 5:</b> Manage the production plan accordingly</p> <p><b>Performance Criteria 6:</b> Maintain the oil level in all gear boxes, hydraulic unit as per the procedures set by the manufacturer</p> <p><b>Performance Criteria 7:</b> Inspect tension on all v-drive belts</p> <p><b>Performance Criteria 8:</b> Inspect conveyor belt for alignment and excessive wear</p> <p><b>Performance Criteria 9:</b> Grease, lubricate and tighten bearings and gate pivot points</p> <p><b>Performance Criteria 10:</b> Check emptiness of crush plant</p> <p><b>Performance Criteria 11:</b> Check damage wiring and loose electrical fitting, sensor and switches</p> <p><b>Performance Criteria 12:</b> Operate manually valves and gates of plant</p> <p><b>Performance Criteria 13:</b> Inspect that all equipment is set and adjusted according to production schedule as required</p> <p><b>Performance Criteria 14:</b> ON the ignition switch</p> <p><b>Performance Criteria 15:</b> Set parameter of plant operations</p> <p><b>Performance Criteria 16:</b> Select quantity in cubic meter for Aggregates</p> <p><b>Performance Criteria 17:</b> Select screens</p> <p><b>Performance Criteria 18:</b> Run 1st trial of aggregate</p> <p><b>Performance Criteria 19:</b> Conduct the sieve test</p> <p><b>Performance Criteria 20:</b> Make adjustments as per work order specifications of aggregates</p> <p><b>Performance Criteria 21:</b> Empty the feeder ,conveyors and crusher</p> <p><b>Performance Criteria 22:</b> Clean the conveyor that discharges the aggregates into</p>

	<p>the storage area</p> <p><b>Performance Criteria 23:</b> Run the empty crusher for 5-10 minutes.</p> <p><b>Performance Criteria 24:</b> Stop the feeder, dirt conveyor belt, crusher and product conveyor respectively and then shutdown the system.</p> <p><b>Performance Criteria 25:</b> Recognize the safety signs and symbols</p> <p><b>Performance Criteria 26:</b> Identify the risk of slip, trip and fall at work place</p> <p><b>Performance Criteria 27:</b> Perform fall protection measures as per job requirements</p> <p><b>Performance Criteria 28:</b> Convey the information using the appropriate medium and ideas.</p> <p><b>Performance Criteria 29:</b> Follow COVID-19 SOP's</p>
	<p><b>Portfolios required at the time of assessment (if any) for</b></p> <ol style="list-style-type: none"> <li>1. Folder includes Excel sheets about inventory of material</li> <li>2. Folder includes presentation on power point(Prints)</li> <li>3. Folder includes log book of materials In/Out</li> <li>4. Folder includes log register</li> </ol> <p><b>Performance Criteria 1:</b> Develop a worksheet as per given data.</p> <p><b>Performance Criteria 2:</b> Print Worksheet according to requirements.</p> <p><b>Performance Criteria 3:</b> Present a presentation in power point according to 7Cs of communication.</p> <p><b>Performance Criteria 4:</b> Maintain the log book of materials In/Out</p> <p><b>Performance Criteria 5:</b> Manage the Log Register on daily basis</p>

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**Assessors Judgment Guide** (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: ..... Candidate Signature:.....
Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: ..... Assessor's code: ..... Signature of the Assessor:.....

Assessment Summary (to be filled by the assessor)							
Activity	Method					Result	
Nature of Activity	Written	Oral	Observation	Portfolio	Role Play	Competent	Not Yet Competent
Practical Skill Demonstration			✓	✓			
Knowledge Assessment	✓	✓					
Other Requirement							
Each Assessment Task (with performance criteria)							

Assessment Task 1		Description of assessment task 1	
		Produce specific grade and quantity of crush as per job order after making adjustment in production plan as per material available at site and then shutdown, as per instruction given by assessor.	
During the practical assessment, candidate demonstrated the following:		Yes	No
1.	Calculate amount of materials available on site		
2.	Cross check with the log register		
3.	Interpret production plan given by plant in-charge		
4.	Generate demand for material and machinery		
5.	Manage the production plan accordingly		
6.	Maintain the oil level in all gear boxes, hydraulic unit as per the procedures set by the manufacturer		
7.	Inspect tension on all v-drive belts		
8.	Inspect conveyor belt for alignment and excessive wear		
9.	Grease, lubricate and tighten bearings and gate pivot points		
10.	Check emptiness of crush plant		
11.	Check damage wiring and loose electrical fitting, sensor and switches		
12.	Operate manually valves and gates of plant		
13.	Inspect that all equipment is set and adjusted according to production schedule as required		
14.	ON the ignition switch		
15.	Set parameter of plant operations		
16.	Select quantity in cubic meter for Aggregates		
17.	Select screens		
18.	Run 1st trial of aggregate		
19.	Conduct the sieve test		
20.	Make adjustments as per work order specifications of aggregates		
21.	Empty the feeder ,conveyors and crusher		
22.	Clean the conveyor that discharges the aggregates into the storage area		
23.	Run the empty crusher for 5-10 minutes.		
24.	Stop the feeder, dirt conveyor belt, crusher and product conveyor respectively and then shutdown the system.		
25.	Recognize the safety signs and symbols		
26.	Identify the risk of slip, trip and fall at work place		
27.	Perform fall protection measures as per job requirements		
28.	Convey the information using the appropriate medium and ideas.		
29.	Follow COVID-19 SOP's		
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>	

<b>Portfolio</b>		<b>Description of Portfolio</b>		
		1. Folder includes Excel sheets about inventory of material 2. Folder includes presentation on power point(Prints) 3. Folder includes log book of materials In/Out 4. Folder includes log register		
During the practical assessment, candidate demonstrated the following:		Yes	No	Remarks
1.	Develop a worksheet as per given data.			
2.	Print Worksheet according to requirements.			
3.	Present a presentation in power point according to 7Cs of communication.			
4.	Maintain the log book of materials In/Out			
5.	Manage the Log Register on daily basis			
Competent <input type="checkbox"/>		Not Yet Competent <input type="checkbox"/>		

**Written Assessment Guide**  
**For**  
**“Crush Plant Operator”**  
**Level-3**  
**(Summative Assessment)**



**National Vocational & Technical**  
**Training Commission**

<b>Title of Qualification:</b> National Vocational Certificate Level 3 in Crush Plant Technology “Crush Plant Operator”	<b>CS Code:</b>	<b>Level:</b> 3	<b>Version:</b> 01
<b>Competency Standard Title:</b> Maintain Safety at Crushing Plant Site Work in a Team Environment Perform Computer Applications Manage Inventory of Raw Material for Production Process Operate Crushing Plant Software Prepare Crushing Plant for Production Perform Production on Plant	<b>Assessment Date (DD/MM/YY):</b>  <b>Assessment Time:</b> 30 min		

Guidance for Candidate	<b>To complete your assessment for this Competency Standard, you need to answer the questions on the following pages successfully.</b>
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**Assessors Guide** (to be completed by the Assessor and signed both by the assessor and the candidate after the assessment)

Candidate Details	Name: ..... Registration/Roll Number: ..... Candidate Signature:.....
Written Assessment Outcome	COMPETENT <input type="checkbox"/> NOT YET COMPETENT <input type="checkbox"/> Name of the Assessor: ..... Assessor's code: ..... Signature of the Assessor:.....



<b>Title of Qualification:</b> National Vocational Certificate Level 3 in Crush Plant Technology "Crush Plant Operator"	<b>CS Code:</b>	<b>Level:</b> 3	<b>Version:</b> 01
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### WRITTEN ASSESSMENT

Question	Candidate's answer
1. What are the benefits of PowerPoint?	
2. Enlist the types of aggregate based on geographical origin.	
3. Enlist any four types of communication.	
4. Enlist the types of gradation of aggregate.	
5. List the main step to stop the plant operator.	
6. What is an emergency plan?	
7. What is full form of PLC?	
8. How we can maintain the crush plant before starting?	
9. What is the basic step of routine calibration?	
10. Enlist the types of maintenance.	
11. How much time is required to clean the crush plant after production/shutdown?	

### **ANSWER KEY**

<b>Sr.</b>	<b>Answers</b>
<b>1.</b>	<ul style="list-style-type: none"> <li>• Increasing visual impact.</li> <li>• Improving audience focus.</li> <li>• Providing annotations and highlights.</li> <li>• Analyzing and synthesizing complexities.</li> <li>• Enriching curriculum with interdisciplinary.</li> <li>• Increasing spontaneity and interactivity.</li> <li>• Increasing wonder</li> </ul>
<b>2.</b>	Natural aggregate ,Artificial aggregate
<b>3.</b>	<ul style="list-style-type: none"> <li>• Verbal Communication.</li> <li>• Non-verbal / Interpersonal communication.</li> <li>• Written Communications.</li> <li>• Formal &amp; Informal.</li> <li>• Visual Communication</li> </ul>
<b>4.</b>	<ul style="list-style-type: none"> <li>• Uniformly graded</li> <li>• Open graded</li> <li>• Gap graded</li> <li>• Dense or well graded</li> </ul>
<b>5.</b>	<ol style="list-style-type: none"> <li>1. Empty the feeder, dirt conveyors</li> <li>2. Stop crusher, product conveyors</li> <li>3. Stop engine</li> </ol>
<b>6.</b>	An emergency plan specifies procedures for handling sudden or unexpected situations
<b>7.</b>	Programmable logic control
<b>8.</b>	By maintaining the maintenance logbook, ensure the software and panel working
<b>9.</b>	Check rpm sensor of conveyer belt, and perform trail loading
<b>10.</b>	<ol style="list-style-type: none"> <li>1. Preventative</li> <li>2. Periodic</li> <li>3. Corrective</li> </ol>
<b>11.</b>	Run the empty crusher for 5-10 minutes.