

## SELF-ASSESSMENT GUIDE

<b>QUALIFICATION:</b>	<b>FOUNDRY MELTING/CASTING NC III</b>	
<b>Project – Based Assessment</b>	Melt Foundry Alloy in Cupola	
<b>Units of competency covered</b>	<ul style="list-style-type: none"> <li>• Melt Aluminum-Silicon Alloys for Safety Tested Castings</li> <li>• Melt Metals Using Coreless Induction Furnace</li> <li>• Melt Automotive Gray Iron Castings in Cupola</li> </ul>	
<p>Instruction:</p> <ul style="list-style-type: none"> <li>• Read each of the questions in the left-hand column of the chart.</li> <li>• Place a check on each question to indicate your answers.</li> </ul>		
<b>Can I?</b>	<b>YES</b>	<b>NO</b>
• Identify job requirements*		
• Determine casting method*		
• Establish melting and melt treatment process*		
• Identify casting defects caused by unsound melting techniques*		
• Identify casting quality requirements*		
• Determine charging sequence of metallic charges and melt treatment*		
• Melt foundry alloys in cupola*		
• Identify basic melt-treatment procedures for alloy*		
• Identify effects of chemical composition on integrity of the casting* (strength, ductility, surface finish)		
• Identify contaminants that affect integrity of the casting*		
• Apply de-slagging, degassing, refining and modifying melting techniques*		

<ul style="list-style-type: none"> <li>Identify countermeasures to eliminate/minimize casting defects*</li> </ul>		
<ul style="list-style-type: none"> <li>Identify safety test applied to casting*</li> </ul>		
<ul style="list-style-type: none"> <li>Recycle scraps/turnings*</li> </ul>		
<ul style="list-style-type: none"> <li>Prepare production report*</li> </ul>		
<p>I agree to undertake assessment in the knowledge that information gathered will only be used for professional development purposes and can only be accessed by concerned assessment personnel and my manager/supervisor.</p>		
<p><b>Candidate's Signature:</b></p>	<p><b>Date:</b></p>	