

SELF-ASSESSMENT GUIDE

QUALIFICATION:	FOUNDRY MELTING/CASTING NC III	
Project – Based Assessment	Melt Foundry Alloy in Cupola	
Units of competency covered	<ul style="list-style-type: none"> • Melt Aluminum-Silicon Alloys for Safety Tested Castings • Melt Metals Using Coreless Induction Furnace • Melt Automotive Gray Iron Castings in Cupola 	
<p>Instruction:</p> <ul style="list-style-type: none"> • Read each of the questions in the left-hand column of the chart. • Place a check on each question to indicate your answers. 		
Can I?	YES	NO
• 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"> Identify countermeasures to eliminate/minimize casting defects* 		
<ul style="list-style-type: none"> Identify safety test applied to casting* 		
<ul style="list-style-type: none"> Recycle scraps/turnings* 		
<ul style="list-style-type: none"> Prepare production report* 		
<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>Candidate's Signature:</p>	<p>Date:</p>	