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**SELF - ASSESSMENT GUIDE**

Qualification:	<b>COMMERCIAL REFRIGERATION INSTALLATION AND SERVICING NC III</b>		
Unit of Competency covered:	<ul style="list-style-type: none"> <li>• Install commercial refrigeration equipment</li> <li>• Service and maintain commercial refrigeration equipment</li> <li>• Troubleshoot and repair commercial refrigeration equipment</li> <li>• Perform start-up, testing and commissioning for commercial refrigeration equipment</li> </ul>		
<b>Instruction:</b> Read each question and check the appropriate column to indicate your answer.			
Can I?	YES	NO	
<b>Survey site for installation</b>			
• Interpret work instructions/technical plans/drawings as per job requirements*			
• Verify installation requirements in line with site conditions*			
• Prepare alteration/comments as per survey conducted			
• Prepare result of survey in line with enterprise procedures.			
<b>Install commercial refrigeration piping systems</b>			
• Prepare piping materials consistent with the approved designs and specifications *			
• Mount brackets and supports in accordance with site conditions *			
• Install, clean and test piping in accordance with approved design and specifications and RAC Code of Practice *			
• Use and install correct insulation and sealing/adhesive materials in accordance with manufacturer's specifications *			
<b>Install commercial refrigeration electrical systems</b>			
• Prepare electrical materials consistent with job requirements and checks for any damage			
• Select and use appropriate PPE, tools, instrument and equipment in line with the job requirements*			
• Install/connect electrical wirings in line with electrical designs/diagrams			
• Test/energize electrical system in line with applicable provisions of the latest edition of PEC *			

<ul style="list-style-type: none"> <li>• Prepare report on testing/energization of electrical system in line with enterprise procedures</li> </ul>		
<b>Identify and repair faults/ problems</b>		
<ul style="list-style-type: none"> <li>• Select and use appropriate PPE in line with the job requirements *</li> </ul>		
<ul style="list-style-type: none"> <li>• Select and use suitable tools, instrument and equipment based on job requirement *</li> </ul>		
<ul style="list-style-type: none"> <li>• Test refrigeration system components following manufacturer's manual, RAC Code of Practice and/or enterprise troubleshooting policy *</li> </ul>		
<ul style="list-style-type: none"> <li>• Diagnose faults/problems with the refrigeration system in line with manufacturer's manual, RAC Code of Practice and/or enterprise troubleshooting policy *</li> </ul>		
<b>Perform refrigerant recovery/ recycling, evacuation, leak testing and charging on refrigeration systems</b>		
<ul style="list-style-type: none"> <li>• Select and use appropriate PPE in line with the job requirements *</li> </ul>		
<ul style="list-style-type: none"> <li>• Select and use suitable tools, instrument and equipment based on job requirement *</li> </ul>		
<ul style="list-style-type: none"> <li>• Perform refrigerant recovery/ recycling according to manufacturer's recommendations and RAC Code of Practice.*</li> </ul>		
<ul style="list-style-type: none"> <li>• Vent flammable refrigerants (HC) in a safe manner *</li> </ul>		
<ul style="list-style-type: none"> <li>• Perform repairs in line with manufacturer's manual, RAC Code of Practice and/or enterprise troubleshooting policy *</li> </ul>		
<ul style="list-style-type: none"> <li>• Perform evacuation, leak testing and charging of the system according to manufacturer's recommendations or standard operating procedure*</li> </ul>		
<ul style="list-style-type: none"> <li>• Complete work safely in line with enterprise safety guidelines*</li> </ul>		
<b>Prepare for start-up, test and commissioning of refrigeration unit</b>		
<ul style="list-style-type: none"> <li>• Read and interpret work instructions to determine job requirements</li> </ul>		
<ul style="list-style-type: none"> <li>• Select tools, instrument and equipment in accordance with job requirements</li> </ul>		
<ul style="list-style-type: none"> <li>• Prepare pre-start-up, testing and commissioning checklists in accordance with manufacturer's manuals.</li> </ul>		
<b>Conduct start-up, test and commissioning of refrigeration unit</b>		
<ul style="list-style-type: none"> <li>• Perform electrical related checks based on manufacturer's manuals*</li> </ul>		
<ul style="list-style-type: none"> <li>• Perform refrigerant piping related checks based on manufacturer's manuals*</li> </ul>		
<ul style="list-style-type: none"> <li>• Perform condensing unit related checks based on manufacturer's manuals*</li> </ul>		
<ul style="list-style-type: none"> <li>• Perform compressor unit related checks based on manufacturer's manuals*</li> </ul>		
<ul style="list-style-type: none"> <li>• Perform indoor unit related checks based on manufacturer's manuals and site conditions *</li> </ul>		

• Perform refrigerant flow control related checks based in manufacturer's manuals *		
• Test commercial air-conditioning unit in line with manufacturer's instructions *		
• Gather and record performance parameters in accordance with manufacturer's manual and standard operating procedures		
• Accomplish start-up, testing and commissioning reports in line with enterprise policies and procedures		
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		
<b>Candidate's Name and Signature</b>		<b>Date</b>

*NOTE: \*Critical aspects of competency*