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SELF-ASSESSMENT GUIDE

Qualification:	CNC EDM WIRE CUT OPERATION NCIII		
Units of Competency covered:	<ul style="list-style-type: none"> • Write CNC Electric Discharge Machine (EDM)- wire cut program • Set-up CNC Electric Discharge Machine (EDM)- wire cut, cutting wire and workpiece • Perform CNC Electric Discharge Machine (EDM)-wire cut operations • Perform post CNC Electric Discharge Machine (EDM)- wire cut operations 		
Instruction:			
Read each question and check the appropriate column to indicate your answer.			
Can I?	YES	NO	
WRITE CNC EDM WIRE CUT PROGRAM			
• Interpret drawing*			
• Select cutting wire according to the job requirement*			
• Receive and inspect work piece base on the drawing*			
• Use desktop computer according to standard operation procedures*			
• Determine sequence wire cut operation according to standard procedures *			
• Generate drawing using software *			
• Write wire path program according to software manual *			
• Fill up wire parameters according to software *			
• Save CAD drawing to designated folder according to industry procedures *			
• Simulate and edit Computer Aided Design program according to standard operating procedures *			
• Save program to designated folder according to industry procedures *			
• Download inputs program to the machine using appropriate devices according to industry procedures *			
SET-UP CNC ELECTRIC DISCHARGE MACHINE (EDM), CUTTING WIRE AND WORKPIECE			
• Select EDM wire cut type and capacity according to job requirement *			
• Check oil, grease and deionized water according to manufacturer's specification.*			
• Check electric settings and parameters according to manufacturer's specification*			
• Check air and hydraulic pressure according to manufacturer's specification.*			
• Mount work holding and clamping devices according to standard operating procedures.*			

• Check perpendicularity and verticality of machine axes using precision instruments according to operating manual*		
• Check verticality of upper and lower guide *		
• Select nozzles according to cutting wire diameter*		
• Mount nozzles according to industry procedure*		
• Mount cutting wire according to job requirement *		
• Adjust cutting wire tension according operating procedures *		
• Mount workpiece on clamping device according to industry practices*		
• Check workpiece for perpendicularity and verticality according to industry standard procedures*		
• Center workpiece and zero reference point is set according to industry standard procedures*		
• Perform dry-run in accordance with the desired tool path movement.*		
• Monitor dry-run and adjust parameters according to standard industry procedure.*		
• Apply safety practices OSHS *		
PERFORM CNC EDM WIRE CUT OPERATION		
• Submerge workpiece with deionized water according to EDM operating manual*		
• Conduct dry run and adjust parameters if required according to EDM operating manual*		
• Operate EDM to meet dimensions and surface texture according to job requirements*		
• Use EDM accessories according to job requirements*		
• Monitor performance of the machine and cutting wire are in the power control unit based on the accepted industry standards *		
• Maintain deionized water level according to machine operating manual*		
• Increase flushing pressure progressively based on job requirements*		
• Empty working table of deionized water according to operating manual *		
• Clean surface of workpiece according to job requirement*		
• Inspect surface texture of workpiece while on its holder according to job requirements*		
• Inspect tension of cutting wire and correct / adjust if necessary according to job requirements*		
PERFORM POST CNC EDM WIRE CUT OPERATION		
• Shut of EDM flushing or open gate valve in accordance to operation manual *		
• Remove workpiece from work holding and clamping devices according to job requirement *		
• Clean and dry workpiece according to job requirement *		
• Check and measure workpiece using measuring tools following standard operating procedures*		
• Apply anti-corrosion agents on the inspected workpiece *		

• Fill up accomplishment report according to company procedures*		
• Submit inspected workpiece and accomplishment report to immediate supervisor following workplace procedures*		
• Shut off EDM according to manufacturer's operating manual*		
• Maintain and store tools based on established procedures*		
• Tag and report defective tools according to workplace procedures*		
• Perform good housekeeping following 5S*		
• Dispose wastes according to waste management procedures and environmental regulations*		
I agree to undertake assessment with 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.		
Candidate's Name and Signature		Date

NOTE: *Critical aspects of competency