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| Reference No. | | | | | | | | | | | | | | | | | |
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SELF-ASSESSMENT GUIDE

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| 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.* | | | |

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| • 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 * | | |

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| • 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