



**National Institute for Metalworking Skills®**

# **Credentialing Achievement Record**

## **CNC Mill Operator Level I**

National Institute for Metalworking Skills  
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National Institute for Metalworking Skills®

## CNC CREDENTIALING PROGRAM

### LEVEL 1 CREDENTIALING ACHIEVEMENT RECORD (CAR)

and

### Official Prerequisites CHECKLIST (Skill Check)

Please print

<b>NAME:</b>	<b>Job Title:</b>
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<b>Site Name:</b>		
<b>Status</b>	<b>Non-Completer</b>	<b>Candidate has Successfully Completed all NIMS Performance Requirements in the Following Credentialing Area:</b>
	Reason:	Duty Cluster Name:  <b>CNC Mill Operator Skills Level I</b>  Date Completed:

**Directions** This Credentialing Achievement Record (CAR) is the official training and performance document for the above named NIMS credentialing candidate. The CAR is used by the trainer/supervisor and candidate as a record (or logbook) of individual performance. The CAR is the vehicle that will allow eligible candidates to take the NIMS written credentialing examination(s). Supervisors, trainers, and candidates should take care of this record and be sure that it is accurate, kept up to date, filled out correctly, and properly stored. All information recorded in the CAR should be considered **CONFIDENTIAL**. The CAR is the property of the candidate and must be returned to the candidate when employment ends. This CAR opens with a list of Critical Work Activities (or experience statements) that must be acknowledged and documented. Work Activity sign-offs must be co-initialed by the trainer/supervisor or manager and candidate then dated. When the candidate has successfully demonstrated abilities in each of the work activities and experiences to the satisfaction of the supervisor or trainer, he/she is eligible to take the written credentialing exam. The Affidavit of Successful Completion is filled and signed by the sponsor. It is co-signed by the trainer/ supervisor and the candidate and mailed or faxed to NIMS to request the written exam.

# CNC OPERATOR CREDENTIALING PROGRAM

## LEVEL I CREDENTIALING ACHIEVEMENT RECORD (CAR)

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### CNC Mill Operator Skills Level I

Critical Work Activities & Experience	Date Completed	Supervisor's or Trainer's Initials	Trainee's Initials
<b>CNC Mill Operator Level I</b>			
Candidate has successfully completed required safety training or testing. Demonstrates knowledge of basic OSHA requirements, chip handling, and general shop safety.			
Candidate demonstrates the ability to read and understand MSDS information in order to properly protect themselves and the environment from potentially hazardous materials in the workplace.			
Candidate can locate and demonstrate proper procedures for all fire extinguishers, eyewash stations, blood borne pathogen protection, and first aid safety stations in the workplace.			
Candidate demonstrates proper lockout/tagout procedures to safeguard employees from the unexpected energization or startup of machinery and equipment, or the release of hazardous energy during service or maintenance activities.			
Candidate has successfully met the attendance policy of either the training facility during the program or the employer's policy over the last 3 consecutive months; whichever applies.			
Candidate has demonstrated an acceptable level of housekeeping at assigned workstations during training or on the job.			
Candidate demonstrates proper, safe lifting practices and understands the facility's maximum lift rate.			
Candidate can identify a router or job-process sheet, and can locate part number, drawing number and other relevant information on it as required by the facility.			
Candidate has demonstrated the ability to read basic part prints and/or technical drawings including GD&T and apply the information as it relates to gauging, dimensioning, and tolerancing.			
Candidate can recognize, name, and describe the function of the primary components of a CNC mill.			
Candidate correctly performs preventative maintenance checks on a CNC mill. This includes checking all fluid levels, system pressure, tooling wear, component lubrication, and cleaning.			
Candidate demonstrates the ability to correctly test the coolant for proper density and adjust accordingly in order to reach the correct mixture.			
Candidate correctly responds to a CNC mill malfunction. Determines when a malfunction has occurred and responds appropriately. This includes viewing alarm information, determining the cause of the malfunction, correcting the malfunction, and recovering the machine from the malfunction.			

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Skill Check #1	Date Completed	Supervisor's or Trainer's Initials	Trainee's Initials
<b>CNC Mill Operator Level I</b> <i>(continued)</i>			
Candidate has safely powered up a standard CNC milling machine. This included applying main control power and power for auxiliary devices. It also included locating and loading a program, homing the CNC mill, verifying that the correct program for the part is available, correct revision level, and matched print to process plan before loading program.			
Candidate safely powered down the CNC mill. This included homing the CNC mill, removing power from auxiliary devices and the control system, and shutting off the main power.			
Candidate properly demonstrates the use of the jog controls on the operator panel to jog the mill's axes. Also will demonstrate the use of the MPG (Manual Pulse Generator) or hand wheel to jog the axes of the CNC mill.			
Candidate has demonstrated the ability to locate, assemble, and measure tooling using a presetter, or other means, according to work instructions and job documentation.			
Candidate has successfully installed in the automatic tool changer locations, tools and tool holders, according to work instructions and job documentation.			
Candidate has properly located, assembled, and installed the workholding fixture according to work instructions and job documentation.			
Candidate has safely aligned the workpiece in the fixture and secured the workpiece in the fixture using the specified clamping method.			
Candidate safely locates and sets workpiece zero on a CNC mill.			
Candidate properly sets any required work offsets for the part to be machined after a basic tool setting process has been completed.			
Candidate sets the proper geometry/tool offsets for each tool in a standard tool setting process.			
Candidate safely operates CNC mill in automatic mode. Places the controller in the automatic mode and executes the loaded CNC program. Monitors the machining operation and intervenes as required.			
Candidate correctly interprets a CNC mill program. This is to include the following: units of measure, positioning system, tools, spindle speeds, feed rates, canned cycles, coolant use, axis destination movements, tool movements, and end of program code.			
Candidate can review the currently loaded CNC mill program and make any necessary edits. Must be able to make common edits including changing feed rates (F) and spindle speeds (S). Must be able to recognize, name and describe the function of basic (G) and (M) codes that might require editing in a CNC milling operation.			
Candidate demonstrates a working knowledge of basic measuring and inspection tools and uses appropriate devices to confirm a part's compliance to required specifications including GD&T symbols. Properly records inspection data in appropriate SPC reports			
Candidate demonstrates the ability to use tool <i>geo./wear</i> offset adjustments to maintain correct sizing of parts within the tolerances specified.			

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Skill Check #2	Date Completed	Supervisor's or Trainer's Initials	Trainee's Initials
<b>CNC Mill Operator Level I</b> <i>(continued)</i>			
Candidate has safely powered up a standard CNC milling machine. This included applying main control power and power for auxiliary devices. It also included locating and loading a program, homing the CNC mill, verifying that the correct program for the part is available, correct revision level, and matched print to process plan before loading program.			
Candidate safely powered down the CNC mill. This included homing the CNC mill, removing power from auxiliary devices and the control system, and shutting off the main power.			
Candidate properly demonstrates the use of the jog controls on the operator panel to jog the mill's axes. Also will demonstrate the use of the MPG (Manual Pulse Generator) or hand wheel to jog the axes of the CNC mill.			
Candidate has demonstrated the ability to locate, assemble, and measure tooling using a presetter, or other means, according to work instructions and job documentation.			
Candidate has successfully installed in the automatic tool changer locations, tools and tool holders, according to work instructions and job documentation.			
Candidate has properly located, assembled, and installed the workholding fixture according to work instructions and job documentation.			
Candidate has safely aligned the workpiece in the fixture and secured the workpiece in the fixture using the specified clamping method.			
Candidate safely locates and sets workpiece zero on a CNC mill.			
Candidate properly sets any required work offsets for the part to be machined after a basic tool setting process has been completed.			
Candidate sets the proper geometry/tool offsets for each tool in a standard tool setting process.			
Candidate safely operates CNC mill in automatic mode. Places the controller in the automatic mode and executes the loaded CNC program. Monitors the machining operation and intervenes as required.			
Candidate correctly interprets a CNC mill program. This is to include the following: units of measure, positioning system, tools, spindle speeds, feed rates, canned cycles, coolant use, axis destination movements, tool movements, and end of program code.			
Candidate can review the currently loaded CNC mill program and make any necessary edits. Must be able to make common edits including changing feed rates (F) and spindle speeds (S). Must be able to recognize, name and describe the function of basic (G) and (M) codes that might require editing in a CNC milling operation.			
Candidate demonstrates a working knowledge of basic measuring and inspection tools and uses appropriate devices to confirm a part's compliance to required specifications including GD&T symbols. Properly records inspection data in appropriate SPC reports			
Candidate demonstrates the ability to use tool <i>geo./wear</i> offset adjustments to maintain correct sizing of parts within the tolerances specified.			

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Skill Check #3	Date Completed	Supervisor's or Trainer's Initials	Trainee's Initials
<b>CNC Mill Operator Level I</b> <i>(continued)</i>			
Candidate has safely powered up a standard CNC milling machine. This included applying main control power and power for auxiliary devices. It also included locating and loading a program, homing the CNC mill, verifying that the correct program for the part is available, correct revision level, and matched print to process plan before loading program.			
Candidate safely powered down the CNC mill. This included homing the CNC mill, removing power from auxiliary devices and the control system, and shutting off the main power.			
Candidate properly demonstrates the use of the jog controls on the operator panel to jog the mill's axes. Also will demonstrate the use of the MPG (Manual Pulse Generator) or hand wheel to jog the axes of the CNC mill.			
Candidate has demonstrated the ability to locate, assemble, and measure tooling using a presetter, or other means, according to work instructions and job documentation.			
Candidate has successfully installed in the automatic tool changer locations, tools and tool holders, according to work instructions and job documentation.			
Candidate has properly located, assembled, and installed the workholding fixture according to work instructions and job documentation.			
Candidate has safely aligned the workpiece in the fixture and secured the workpiece in the fixture using the specified clamping method.			
Candidate safely locates and sets workpiece zero on a CNC mill.			
Candidate properly sets any required work offsets for the part to be machined after a basic tool setting process has been completed.			
Candidate sets the proper geometry/tool offsets for each tool in a standard tool setting process.			
Candidate safely operates CNC mill in automatic mode. Places the controller in the automatic mode and executes the loaded CNC program. Monitors the machining operation and intervenes as required.			
Candidate correctly interprets a CNC mill program. This is to include the following: units of measure, positioning system, tools, spindle speeds, feed rates, canned cycles, coolant use, axis destination movements, tool movements, and end of program code.			
Candidate can review the currently loaded CNC mill program and make any necessary edits. Must be able to make common edits including changing feed rates (F) and spindle speeds (S). Must be able to recognize, name and describe the function of basic (G) and (M) codes that might require editing in a CNC milling operation.			
Candidate demonstrates a working knowledge of basic measuring and inspection tools and uses appropriate devices to confirm a part's compliance to required specifications including GD&T symbols. Properly records inspection data in appropriate SPC reports			
Candidate demonstrates the ability to use tool <i>geo./wear</i> offset adjustments to maintain correct sizing of parts within the tolerances specified.			

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# Affidavit of Successful Completion

## NIMS CNC Mill Operator Skills Level I Credentialing Program

### \* Credentialing Achievement Record \*

Please print <i>Candidate Name</i>	<i>Date Completed</i>
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The credentialing candidate named above has completed all necessary CAR requirements for NIMS Level I OJT recognition.

*Site Name and Address:*

Indicate in the number of Skill Checks completed and dates of successful performance for each Skill Check

Duty Cluster Name CNC Mill Operator Skills Level I	
Successful Completion of Critical Work Activities and Experiences statements have been completed, dated, and co-initialed.	Yes <input type="checkbox"/> No <input type="checkbox"/>
Successful Completion of Skill Check #1, all components have been completed, dated, and co-initialed.	Yes <input type="checkbox"/> No <input type="checkbox"/>
Successful Completion of Skill Check #2, all components have been completed, dated, and co-initialed.	Yes <input type="checkbox"/> No <input type="checkbox"/>
Successful Completion of Skill Check #3, all components have been completed, dated, and co-initialed.	Yes <input type="checkbox"/> No <input type="checkbox"/>

\_\_\_\_\_  
*Sponsor Signature*

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
*Trainer/Supervisor Signature*

\_\_\_\_\_  
**Date**

\_\_\_\_\_  
*Candidate Signature*

\_\_\_\_\_  
**Date**

Make a copy of the completed *Affidavit of Successful Completion* for your records and send or FAX to:

**The National Institute for Metalworking Skills**

**10565 Fairfax Boulevard, Suite 203**

**Fairfax, Virginia, 22030**

**FAX: 703.352.4991**

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