NIMS Registration Number:

CERTIFICATION ACHIEVEMENT RECORD (CAR)

MACHINE MAINTENANCE, LEVEL II

CANDIDATE INFORMATION

Candidate:

Name: (Please Print) _____

Mailing Address: _____

City _____ State _____ Zip _____

Beginning Date of Employment With the Company Identified Below: _____

Candidate's Metalworking Employer:

Company Name: (Please Print) _____

Mailing Address: _____

City _____ State _____ Zip _____

Contact Information: Voice # _____ Fax # _____

Sponsor:

Name: (Please Print) _____ Title _____

E-mail Address: _____

CERTIFICATION ACHIEVEMENT RECORD (CAR)

MACHINE MAINTENANCE, LEVEL II

This Certification Achievement Record (CAR) is the official report for documenting successful performance in meeting requirements for the certification identified above. This certification is offered by the National Institute for Metalworking Skills, Inc. [NIMS], on behalf of the metalworking industry nationwide. The requirements have been developed by a committee of maintenance and service personnel, validated to the standards specified in *Duties and Standards for Machine Maintenance, Repair, and Service Skills*. This CAR also has been validated by multiple companies across the nation. This CAR should be used with the information found in the following NIMS document: *Duties and Standards for Machine Maintenance, Repair and Service Skills.*

This document is available on the NIMS website [www.NIMS-skills.org] or in hard copy form by contacting NIMS at 703.352.4971.

Who is NIMS?

The National Institute for Metalworking Skills, Inc. is a not-for-profit national educational foundation created and sponsored by major metalworking trade associations. NIMS was created to develop and manage skill standards, and is certified by the American National Standards Institute [ANSI] as a developer of skill standards. NIMS also administers an assessment program for the purpose of certifying the metalworking skills and knowledge of individuals, and awarding certifications accordingly. Finally, NIMS administers a quality assurance-based initiative for accrediting metalworking training programs in companies, schools, and inter-firm centers.

Who is eligible to earn certification using this CAR?

Any individual working or about to work in machine maintenance who can meet two requirements:

1. Be sponsored by a metalworking company, and
2. Satisfy the work history and experience requirements specified in Part I of this CAR.

Who in the company is involved in completing this CAR?

Obviously, each CAR involves a candidate, who is the individual seeking to earn certification. At least two other individuals must be involved. NIMS requires that each candidate for certification have a sponsor from the metalworking company in which he/she is employed. The sponsor is an individual authorized to represent the company, especially in personnel matters, and serves as the liaison between the company and NIMS. The sponsor has responsibilities for record keeping and reporting to NIMS, coordinates the certification process within the company, and is required to sign-off on certain documents in the CAR.

Two other roles need to be fulfilled in administering a CAR. The candidate's supervisor needs to be informed as to the certification process, know the specific requirements of the CAR, and must sign-off on the Work History and Experiences component of the CAR. The third role is that of the performance evaluator. This should be an in-plant expert in machine maintenance procedures, be considered fair and reliable, and have effective communication skills. The evaluator uses direct observation of the on-the-job performance of the candidate to complete the skill checks of the CAR and to attest that the candidate [1] was able to satisfy the standards included in the skill checks, and [2] followed all applicable safety and plant procedural guidelines.

Please Note: The evaluator can be the candidate's supervisor or the company's certification sponsor. However, the same individual cannot serve in all three capacities [evaluator, sponsor, and supervisor]. A company may choose to involve three different individuals in these roles and may even opt to contract with an outside party for the role of evaluator.

What is the role of the CAR?

The CAR provides the company and candidate with a record (or logbook) of observed on-the-job performance. A completed CAR also is the *vehicle* that will qualify candidates for taking the NIMS written examination for the above certification. All parties involved in executing this CAR, including the candidate, 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.

Candidates may attempt to earn several certifications as applicable to the company and facility in which they work, or as appropriate to the job, or in pursuit of career goals. Separate CAR booklets are available for each certification at Level II and Level III.

How is the CAR structured?

There are three components to this CAR:

1. Report on Work History and Experience
2. Skill Checks
3. Affidavit of Successful Completion.

The CAR opens with a form to report the candidate's Work History and Experiences; *all elements of this report must be acknowledged and documented.*

The actual work performance required for the certification is assessed by an evaluator who observes the skills of the candidate in real work settings. Skill Checks required for certification are clearly marked with the title - CAR SKILL CHECK. Each Skill Check must be successfully completed. *Three* skill checks involving three different jobs are required to assure repeatability of demonstrated skill.

Company job part or job control numbers should be used to identify the skill checks and document that each skill check involved a different job. Since the CAR is a process that occurs over time, these Skill Checks provide documentation of the attained skills of the candidate.

Once the CAR has been completed, then what?

The final component of the CAR is the Affidavit of Successful Completion. Each successful Skill Check attempt must be entered into this affidavit and signed/initialed by the evaluator. When all skill checks have been fulfilled and the Work History and Experiences report is completed, then the affidavit must be signed by all required parties – Sponsor, Supervisor, Evaluator, and the Candidate.

The entire CAR is then sent to NIMS where it is reviewed to assure completeness. NIMS will retain the Affidavit of Successful Completion as its required documentation that performance requirements for the certification have been met. The CAR, less the affidavit, is then returned to the Certification Sponsor.

What topics are covered by the written exam?

A CAR, having been successfully completed, qualifies the candidate to take the related theory exam associated with this certification. Certification cannot be awarded until both the CAR and the exam have been completed successfully. The sponsor should schedule with NIMS a time for the written exam for the certification.

The written exam covers the following topics:

- Preparing machine maintenance schedules
- Developing a checklist of maintenance activities
- Estimating downtime of machine during a scheduled maintenance event
- Performing a walk-around sensory scan of the machine
- Confirming operating conditions & changes in operating conditions of the machine
- Lubrication, coolants, fault detection
- Hydraulic fluids, filters, gauges, and valves
- Motors, drives, and diagnostics

Acronyms or abbreviations that may be used in this CAR:

ANSI	American National Standards Institute
CAR	Certification Achievement Record
EPA	Environmental Protection Agency
ISO	International Standards Organization
NA	Not Applicable
NIMS	National Institute for Metalworking Skills
MSDS	Material Safety Data Sheet
OEM	Original Equipment Manufacturer
OJT	On-the-Job Training
OSHA	Occupational Safety & Health Administration
PPC	Personal Protective Equipment
PPE	Personal Protective Equipment
SPC	Statistical Process Control
SSN	Social Security Number

NIMS

Part 1

WORK HISTORY AND EXPERIENCES REPORT

MACHINE MAINTENANCE, LEVEL II

Duty Cluster and Critical Work Activities	Date Completed	Supervisor Initials	Candidate Initials
Candidate has met the attendance policy of the facility for the last 12 consecutive months.			
Candidate has no company documented safety violations within the last 12 consecutive months.			
Candidate has knowledge of and follows the company's quality standards and/or ISO requirements and procedures.			
Candidate has demonstrated the ability to maintain a safe, clean and orderly work area in compliance with facility housekeeping policies and performs basic equipment preventative maintenance according to facility standards.			
Candidate has demonstrated knowledge and utilization of material/part conformance standards and of SPC recording requirements.			
Candidate has demonstrated leadership qualities and communication skills consistent with the position and level of responsibility.			
Candidate understands principles of basic machining and metalforming processes, mechanical technology, and metallurgy.			
Candidate has demonstrated the ability to use prints, charts, technical drawings, and/or schematics to troubleshoot processes and conduct quality control part inspections.			

Please Note: All of the above elements of work history and on-the-job experiences must be met.

Part 2

PREPARING TO ADMINISTER THE SKILL CHECK

MACHINE MAINTENANCE, LEVEL II

Performance Conditions

Setting: OJT Observations. OJT Observation: Shop/plant floor in the manufacturing area. The individual candidate must be observed three separate times, each involving maintenance of a different machine, within a consecutive 12 month time period.

The candidate will be responsible for the maintenance of the machine from the planning stage through satisfactory completion of the required maintenance. The candidate will conduct all required maintenance procedures as called for on an approved checklist for the specific piece of equipment/machine while continuously monitoring the quality of work being performed. The candidate must be able to recognize adverse conditions, common equipment problems, and non-conformance situations and respond accordingly. Procedures and standards presented in this Skill Check are applicable to all required attempts. Given the nature of this work at various companies, any given Skill Check does not need to be all on one type of machine. The key focus is on checking for demonstration of applied skill competence.

Equipment And Measuring Instruments

Safety Equipment:

- PPE/PPC
- MSDS

Equipment:

- Air Hose & Nozzle
- Arbor Presses
- Cranes, Hoist
- Deburring Devices
- Slings
- Test Equipment
- Oil/Coolant siphoning/ storage/ pumping equipment
- All industrial machinery that requires maintenance

Tools:

- Screw Drivers
- Hammers [Hard, Soft]
- Hand Wrenches
- Grease guns and oil transfer devices

Documents:

- OEM Service Manual
- Machine Maintenance History

Measuring Instruments

- Calipers
- Depth Micrometer
- Dial Indicators
- Feeler Gages
- Micrometers [Internal, External]
- Steel Rule
- Machine oil flow/level gages
- Machine condition gages and control screens
- Precision level

Materials:

- Fasteners, Other Hardware
- Lubricants
- Hydraulic oils
- Rust Inhibitor
- Shop Towels
- Oil spill clean-up materials
- Filters

Attainment Standards

1. 100% of all machine specific maintenance requirements, without assistance, within company specific time requirements
2. 100% conformance with all plant safety procedures.
3. 100% conformance with all company maintenance procedures.
4. Work area must be left clean, free of any debris from the maintenance activities.
5. All spilled or materials that leaked from the machine must be cleaned-up and disposed of using safe and legal procedures.

Candidate Directions

The above referenced tools, equipment, materials and supplies will be used to maintain a machine in accordance with NIMS specifications as they apply to each job. All plant safety procedures must be followed. All maintenance documentation requirements will be met. The final result of the machine maintenance process will be evaluated.

Evaluator Instructions

For successful completion of this skill check, the candidate must demonstrate the ability to complete the work activity under controlled assessment conditions. All work must be completed to NIMS standards, or better.

Please Note Ö

Before administering the skill check:

- Read and review the Q and A Section of this CAR on pages 2-4.
- Ensure that you have a copy of this Skill Check for the candidate to use while working. Ensure that all applicable equipment and supplies are available.
- Determine that the company has created a file on the candidate to hold records associated with this effort to earn certification. Verify that this file contains a maintenance plan that has been prepared by the candidate as part of completing this Certification Achievement Record.

Do not provide assistance to the candidate during the Skill Check. Monitor the candidate's work in-progress and evaluate for maintenance result criteria [NIMS standards]. Mark NA if a maintenance requirement is not appropriate for the machine being maintained or for the processes used by the company. Note, however, that sometimes the NA column has been shaded out. This means that the indicated maintenance requirements must be completed and an NA is not acceptable to NIMS.

When the candidate is conducting the OEM recommended maintenance checks, the candidate should explain to the evaluator what the OEM recommends and what he/she is doing to complete the checks.

Stop the Skill Check immediately if the candidate violates a safety regulation or procedure, or if there is any possibility of personal injury or damage to equipment!

Before starting, the Evaluator may ask the candidate to describe the appropriate safety requirements or loss-potential.

When the candidate indicates that he/she has completed the Skill Check, or when the maximum time allowed for the job by the company has expired, then assess the final maintenance completed to that time.

Checklist

Scoring Procedures: Observe the candidate's performance for each maintenance element in the Skill Check and mark the Checklist if the standards were attained [Yes, No, or NA]. Note that the results must conform to NIMS minimum standards.

Critical: Please Note

Failure to attain a standard will result in ending the Skill Check. If the Skill Check must be stopped due to failure to attain a standard, the evaluator will ensure that the candidate is scheduled for further training.

Part 2, continued

CAR SKILL CHECK # 1

Machine Maintenance, Level II

JOB INFORMATION

Candidate Name: _____ SSN _____

Machine Type/Name: _____

Machine Manufacturer: _____

Machine Model Number and Date of Manufacture: _____

Other: _____

Process Steps	NIMS Process-Product Standards	Completion YES	NO	NA
1. Develop a Maintenance Plan	☐ Developed a thorough inspection checklist form:	☐	☐	
	☐ Took into consideration the plant operating environment [e.g., temperature, contamination, vibration, other factors]	☐	☐	
	☐ Took into consideration the machine manufacturer's maintenance recommendations	☐	☐	
	☐ Took into consideration the machine operating conditions [e.g., scheduled hours, materials being manufactured, other factors]	☐	☐	
	☐ Established a record keeping system for the maintenance history of the machine	☐	☐	
	☐ Identified safety and environmental concerns of the machine and machine area to be addressed when maintenance is to be performed [including all relevant MSDS sheets]	☐	☐	
	☐ Estimated anticipated downtime for scheduled, periodic maintenance events	☐	☐	
	☐ Identified materials, supplies, equipment, tooling, and PPE needed to perform periodic maintenance	☐	☐	
	☐ Established personnel time needed to perform periodic maintenance	☐	☐	
	☐ Developed a schedule for periodic maintenance and maintenance checks			

Process Steps	NIMS Process-Product Standards	Completion YES	NO	NA
2. Conduct and Document Periodic Maintenance Checks With Machine in Production	☐ Used and performed maintenance according to the approved checklist for the machine	☐	☐	
	☐ Required PPE was present and in use	☐	☐	
	☐ Confirmed that all machine safety devices were operating and being used according to required standards	☐	☐	
	☐ Checked with machine operator regarding any machine performance problems	☐	☐	
	☐ Recorded data on maintenance checklist or appropriate report forms	☐	☐	
	☐ Reported and recommended corrective action to supervisor regarding any pending machine failure or safety problem	☐	☐	
	☐ Checked quality performance data on parts produced by the machine and noted any non-conformancies that could be maintenance related	☐	☐	
	☐ Verified that needed materials and supplies for next scheduled periodic maintenance of the machine are in stock or on order			
3. Conduct and Document Periodic Maintenance With Machine Out of Production	☐ Used and performed maintenance according to the approved checklist for the machine:	☐	☐	☐
	☐ Drained, flushed, and disposed of used machine fluids according to EPA/OSHA requirements	☐	☐	☐
	☐ Collected fluid samples and visually checked for contaminants and determined whether additional laboratory analyses are required	☐	☐	☐
	☐ Selected and replaced fluids	☐	☐	☐
	☐ Cleaned up any fluid spills following EPA/OSHA requirements	☐	☐	☐
	☐ Properly lubricated all lubrication points	☐	☐	☐
	☐ Conducted recommended OEM maintenance checks: [Note: the candidate should explain what checks the OEM recommends and what steps he/she taking to complete the checks.]			
	☐ Mechanical	☐	☐	☐
	☐ Electrical	☐	☐	☐
	☐ Electronic	☐	☐	☐
	☐ Fluid Power	☐	☐	☐
	☐ Safety	☐	☐	☐
	☐ Required PPE was present and in use	☐	☐	☐
	☐ Confirmed that all safety devices were operating according to required standards	☐	☐	☐
	☐ Checked with machine operator regarding any machine performance problems	☐	☐	☐
	☐ Recorded data on maintenance checklist or appropriate report forms			

Process Steps	NIMS Process-Product Standards	Completion YES	NO	NA
	☐ Reported and recommended corrective action to supervisor regarding any pending machine failure or safety problem	☐	☐	☐
	☐ Checked quality performance data on parts produced by the machine and noted any possible maintenance related non-conformancies	☐	☐	☐
	☐ Verified that needed materials and supplies for next scheduled periodic maintenance of the machine are in stock or on order	☐	☐	☐
	☐ Left machine work area free of any debris or materials used during periodic maintenance	☐	☐	☐
	☐ Disposed of waste material according to company and EPA/OSHA requirements	☐	☐	☐
4. Analyze Maintenance Data and Recommend Actions as Needed	☐ Filed all collected maintenance data into appropriate record storage, whether paper or electronic	☐	☐	☐
	☐ Requisitioned replacement materials and supplies for those used during preventive maintenance	☐	☐	☐
	☐ Reported to maintenance supervisor any machine conditions at variance with OEM specifications	☐	☐	☐
	☐ Updated record of machine maintenance history	☐	☐	☐
	☐ Reported to maintenance supervisor any "repairs" needed to be scheduled and estimated the urgency of the needed repairs	☐	☐	☐
	☐ Recorded and reported to maintenance supervisor any machine safety issue	☐	☐	☐

FINAL PRODUCT STANDARDS

Work is Done As Expected When:

a. ☐ Job was performed accurately according to the company's maintenance program and the OEM's recommendations.
b. ☐ Waste materials were managed and disposed of according to applicable federal, state, and local safety and environmental requirements.
c. ☐ Accurate and legible information/data has been recorded on forms, information sheets, reports, work orders, labels, and /or in logbooks.
d. ☐ Candidate demonstrated ability to deal with problems pro-actively and decisively.
e. ☐ Candidate demonstrated ability to link cause and effect in simple problems.
f. ☐ Candidate was able to complete periodic maintenance steps within company-approved timeframes.
g. ☐ All safety and plant procedures have been followed.

Signatures: (Evaluator)_____ Date: _____

(Candidate)_____ Date: _____

NOTE: BE SURE TO RECORD REQUIRED INFORMATION ONTO THE AFFIDAVIT OF SUCCESSFUL COMPLETION.

Part 2, continued

CAR SKILL CHECK # 2

Machine Maintenance, Level II

JOB INFORMATION

Candidate Name: _____ SSN _____

Machine Type/Name: _____

Machine Manufacturer: _____

Machine Model Number and Date of Manufacture: _____

Other: _____

Process Steps	NIMS Process-Product Standards	Completion YES	NO	NA
1. Develop a Maintenance Plan	☐ Developed a thorough inspection checklist form:	☐	☐	
	☐ Took into consideration the plant operating environment [e.g., temperature, contamination, vibration, other factors]	☐	☐	
	☐ Took into consideration the machine manufacturer's maintenance recommendations	☐	☐	
	☐ Took into consideration the machine operating conditions [e.g., scheduled hours, materials being manufactured, other factors]	☐	☐	
	☐ Established a record keeping system for the maintenance history of the machine	☐	☐	
	☐ Identified safety and environmental concerns of the machine and machine area to be addressed when maintenance is to be performed [including all relevant MSDS sheets]	☐	☐	
	☐ Estimated anticipated downtime for scheduled, periodic maintenance events	☐	☐	
	☐ Identified materials, supplies, equipment, tooling, and PPE needed to perform periodic maintenance	☐	☐	
	☐ Established personnel time needed to perform periodic maintenance	☐	☐	
	☐ Developed a schedule for periodic maintenance and maintenance checks			

Process Steps	NIMS Process-Product Standards	Completion YES	NO	NA
2. Conduct and Document Periodic Maintenance Checks With Machine in Production	□ Used and performed maintenance according to the approved checklist for the machine	☐	☐	
	□ Required PPE was present and in use	☐	☐	
	□ Confirmed that all machine safety devices were operating and being used according to required standards	☐	☐	
	□ Checked with machine operator regarding any machine performance problems	☐	☐	
	□ Recorded data on maintenance checklist or appropriate report forms	☐	☐	
	□ Reported and recommended corrective action to supervisor regarding any pending machine failure or safety problem	☐	☐	
	□ Checked quality performance data on parts produced by the machine and noted any non-conformancies that could be maintenance related	☐	☐	
	□ Verified that needed materials and supplies for next scheduled periodic maintenance of the machine are in stock or on order			☐
3. Conduct and Document Periodic Maintenance With Machine Out of Production	□ Used and performed maintenance according to the approved checklist for the machine:	☐	☐	☐
	□ Drained, flushed, and disposed of used machine fluids according to EPA/OSHA requirements	☐	☐	☐
	□ Collected fluid samples and visually checked for contaminants and determined whether additional laboratory analyses are required	☐	☐	☐
	□ Selected and replaced fluids	☐	☐	☐
	□ Cleaned up any fluid spills following EPA/OSHA requirements	☐	☐	☐
	□ Properly lubricated all lubrication points	☐	☐	☐
	□ Conducted recommended OEM maintenance checks: [Note: the candidate should explain what checks the OEM recommends and what steps he/she taking to complete the checks.]			
	○ Mechanical	☐	☐	☐
	○ Electrical	☐	☐	☐
	○ Electronic	☐	☐	☐
	○ Fluid Power	☐	☐	☐
	○ Safety	☐	☐	☐
	□ Required PPE was present and in use	☐	☐	☐
	□ Confirmed that all safety devices were operating according to required standards	☐	☐	☐
	□ Checked with machine operator regarding any machine performance problems	☐	☐	☐
	□ Recorded data on maintenance checklist or appropriate report forms			

Process Steps	NIMS Process-Product Standards	Completion YES	NO	NA
	☐ Reported and recommended corrective action to supervisor regarding any pending machine failure or safety problem	☐	☐	☐
	☐ Checked quality performance data on parts produced by the machine and noted any possible maintenance related non-conformancies	☐	☐	☐
	☐ Verified that needed materials and supplies for next scheduled periodic maintenance of the machine are in stock or on order	☐	☐	☐
	☐ Left machine work area free of any debris or materials used during periodic maintenance	☐	☐	☐
	☐ Disposed of waste material according to company and EPA/OSHA requirements	☐	☐	☐
4. Analyze Maintenance Data and Recommend Actions as Needed	☐ Filed all collected maintenance data into appropriate record storage, whether paper or electronic	☐	☐	☐
	☐ Requisitioned replacement materials and supplies for those used during preventive maintenance	☐	☐	☐
	☐ Reported to maintenance supervisor any machine conditions at variance with OEM specifications	☐	☐	☐
	☐ Updated record of machine maintenance history	☐	☐	☐
	☐ Reported to maintenance supervisor any "repairs" needed to be scheduled and estimated the urgency of the needed repairs	☐	☐	☐
	☐ Recorded and reported to maintenance supervisor any machine safety issue	☐	☐	☐

FINAL PRODUCT STANDARDS

Work is Done As Expected When:

a. ☐ Job was performed accurately according to the company's maintenance program and the OEM's recommendations.
b. ☐ Waste materials were managed and disposed of according to applicable federal, state, and local safety and environmental requirements.
c. ☐ Accurate and legible information/data has been recorded on forms, information sheets, reports, work orders, labels, and /or in logbooks.
d. ☐ Candidate demonstrated ability to deal with problems pro-actively and decisively.
e. ☐ Candidate demonstrated ability to link cause and effect in simple problems.
f. ☐ Candidate was able to complete periodic maintenance steps within company-approved timeframes.
g. ☐ All safety and plant procedures have been followed.

Signatures: (Evaluator)_____ Date: _____

(Candidate)_____ Date: _____

NOTE: BE SURE TO RECORD REQUIRED INFORMATION ONTO THE AFFIDAVIT OF SUCCESSFUL COMPLETION.

Part 2, continued

CAR SKILL CHECK # 3

Machine Maintenance, Level II

JOB INFORMATION

Candidate Name: _____ SSN _____

Machine Type/Name: _____

Machine Manufacturer: _____

Machine Model Number and Date of Manufacture: _____

Other: _____

Process Steps	NIMS Process-Product Standards	Completion YES	NO	NA
1. Develop a Maintenance Plan	☐ Developed a thorough inspection checklist form:	☐	☐	
	☐ Took into consideration the plant operating environment [e.g., temperature, contamination, vibration, other factors]	☐	☐	
	☐ Took into consideration the machine manufacturer's maintenance recommendations	☐	☐	
	☐ Took into consideration the machine operating conditions [e.g., scheduled hours, materials being manufactured, other factors]	☐	☐	
	☐ Established a record keeping system for the maintenance history of the machine	☐	☐	
	☐ Identified safety and environmental concerns of the machine and machine area to be addressed when maintenance is to be performed [including all relevant MSDS sheets]	☐	☐	
	☐ Estimated anticipated downtime for scheduled, periodic maintenance events	☐	☐	
	☐ Identified materials, supplies, equipment, tooling, and PPE needed to perform periodic maintenance	☐	☐	
	☐ Established personnel time needed to perform periodic maintenance	☐	☐	
	☐ Developed a schedule for periodic maintenance and maintenance checks			

Process Steps	NIMS Process-Product Standards	Completion YES	NO	NA
2. Conduct and Document Periodic Maintenance Checks With Machine in Production	□ Used and performed maintenance according to the approved checklist for the machine	☐	☐	
	□ Required PPE was present and in use	☐	☐	
	□ Confirmed that all machine safety devices were operating and being used according to required standards	☐	☐	
	□ Checked with machine operator regarding any machine performance problems	☐	☐	
	□ Recorded data on maintenance checklist or appropriate report forms	☐	☐	
	□ Reported and recommended corrective action to supervisor regarding any pending machine failure or safety problem	☐	☐	
	□ Checked quality performance data on parts produced by the machine and noted any non-conformancies that could be maintenance related	☐	☐	
	□ Verified that needed materials and supplies for next scheduled periodic maintenance of the machine are in stock or on order			☐
3. Conduct and Document Periodic Maintenance With Machine Out of Production	□ Used and performed maintenance according to the approved checklist for the machine:	☐	☐	☐
	□ Drained, flushed, and disposed of used machine fluids according to EPA/OSHA requirements	☐	☐	☐
	□ Collected fluid samples and visually checked for contaminants and determined whether additional laboratory analyses are required	☐	☐	☐
	□ Selected and replaced fluids	☐	☐	☐
	□ Cleaned up any fluid spills following EPA/OSHA requirements	☐	☐	☐
	□ Properly lubricated all lubrication points	☐	☐	☐
	□ Conducted recommended OEM maintenance checks: [Note: the candidate should explain what checks the OEM recommends and what steps he/she taking to complete the checks.]			
	○ Mechanical	☐	☐	☐
	○ Electrical	☐	☐	☐
	○ Electronic	☐	☐	☐
	○ Fluid Power	☐	☐	☐
	○ Safety	☐	☐	☐
	□ Required PPE was present and in use	☐	☐	☐
	□ Confirmed that all safety devices were operating according to required standards	☐	☐	☐
	□ Checked with machine operator regarding any machine performance problems	☐	☐	☐
	□ Recorded data on maintenance checklist or appropriate report forms			

Process Steps	NIMS Process-Product Standards	Completion YES	NO	NA
	☐ Reported and recommended corrective action to supervisor regarding any pending machine failure or safety problem	☐	☐	☐
	☐ Checked quality performance data on parts produced by the machine and noted any possible maintenance related non-conformancies	☐	☐	☐
	☐ Verified that needed materials and supplies for next scheduled periodic maintenance of the machine are in stock or on order	☐	☐	☐
	☐ Left machine work area free of any debris or materials used during periodic maintenance	☐	☐	☐
	☐ Disposed of waste material according to company and EPA/OSHA requirements	☐	☐	☐
4. Analyze Maintenance Data and Recommend Actions as Needed	☐ Filed all collected maintenance data into appropriate record storage, whether paper or electronic	☐	☐	☐
	☐ Requisitioned replacement materials and supplies for those used during preventive maintenance	☐	☐	☐
	☐ Reported to maintenance supervisor any machine conditions at variance with OEM specifications	☐	☐	☐
	☐ Updated record of machine maintenance history	☐	☐	☐
	☐ Reported to maintenance supervisor any "repairs" needed to be scheduled and estimated the urgency of the needed repairs	☐	☐	☐
	☐ Recorded and reported to maintenance supervisor any machine safety issue	☐	☐	☐

FINAL PRODUCT STANDARDS

Work is Done As Expected When:

a. ☐ Job was performed accurately according to the company's maintenance program and the OEM's recommendations.
b. ☐ Waste materials were managed and disposed of according to applicable federal, state, and local safety and environmental requirements.
c. ☐ Accurate and legible information/data has been recorded on forms, information sheets, reports, work orders, labels, and /or in logbooks.
d. ☐ Candidate demonstrated ability to deal with problems pro-actively and decisively.
e. ☐ Candidate demonstrated ability to link cause and effect in simple problems.
f. ☐ Candidate was able to complete periodic maintenance steps within company-approved timeframes.
g. ☐ All safety and plant procedures have been followed.

Signatures: (Evaluator)_____ Date: _____

(Candidate)_____ Date: _____

NOTE: BE SURE TO RECORD REQUIRED INFORMATION ONTO THE AFFIDAVIT OF SUCCESSFUL COMPLETION.

NIMS

Part 3

Affidavit of Successful Completion

Machine Maintenance, Level II

Candidate _____ SSN_____ Date: _____

Directions: This page is a compilation of all the performance requirements for the Machine Maintenance certification. This affidavit documents that the candidate has successfully completed all performance requirements; that is,

- the Work History and Experiences report has been met,
- three Skill Checks have been completed and standards attained, and
- all Final Product Standards have been attained.

All parties involved in assuring that the documentation contained in this CAR is accurate and complete must sign the affidavit. When this affidavit is completed, this CAR should be sent in its entirety to NIMS at the indicated address.

Part 1.

All Work History and Experience requirements have been met	Date of Completion:	Supervisor's Initials:

Part 2.

Identify machine, model, and date of manufacture from each CAR Skill Check	Date of Completion of each Skill Check	Evaluator's Initials
Skill Check # 1:		
Skill Check # 2:		
Skill Check #3:		

Part 3.

FINAL PRODUCT STANDARDS

Directions: After reviewing all CAR SKILL CHECKS, check the boxes below ONLY if all maintenance activities of the candidate have met these performance standards.

"Work is Done As Expected When:"

a. ☐ Maintenance performed met or exceeded NIMS minimum criteria standards.
b. ☐ Jobs were performed accurately according to the company's maintenance program and the OEM's recommendations.
c. ☐ Waste materials were managed and disposed of according to applicable federal, state, and local EPA requirements.
d. ☐ Accurate and legible information/data was recorded on forms, information sheets, reports, work orders, labels, and /or in logbooks.
e. ☐ Candidate demonstrated ability to deal with problems pro-actively and decisively.
f. ☐ Candidate demonstrated ability to link cause and effect in simple problems.
g. ☐ Candidate was able to complete periodic maintenance steps within company-approved timeframes.
h. ☐ All safety and plant procedures were followed.

We do hereby attest with our signatures that the candidate named above has completed all necessary CAR requirements for NIMS Level II Machine Maintenance and is hereby eligible to take the written exam for the NIMS Machine Maintenance, Level II certification:

Evaluator's Signature	Date
Sponsor's Signature	Date
Supervisor's Signature	Date
Candidate's Signature	Date

Make a copy of the completed Affidavit of Successful Completion for your records and send this entire CAR to:

The National Institute for Metalworking Skills
10565 Fairfax Blvd.,
Suite 203
Fairfax, VA 22030
Voice: 703.352.4971
Fax: 703.352.4991
www.nims-skills.org