

# Credentialing Achievement Record

# Industrial Technology Maintenance Maintenance Piping Level I

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### ITM CREDENTIALING PROGRAM

Level I Credentialing Achievement Record (CAR)

Name:	Job Title / Student ID:
Duty Cluster Name: Maintenance Piping Level I	
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 of individual performance. The CAR is the vehicle that will allow eligible candidates to take the NIMS online theory 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 or at the completion of the training / school program.

Candidates may select as many credentialing areas as applicable to the facility or appropriate to the job. There are separate CAR booklets for each credentialing area. This CAR opens with a list of Critical Work Activities & Experiences (or experience statements) that must be acknowledged and documented. However, actual performance is assessed in two ways: 1) by fulfilling these general experience and historical statements and 2) by an examiner administering the *Skill Checks (or performance assessments)*. Three successful Skill Check attempts are required. Skill Checks are clearly marked with the title **"Skill Check."** 

Candidate performance is documented by a checkmark on the *Examiner's Checklist*. All Skill Checks must be <u>co-initialed</u> and dated by the trainer/supervisor and candidate. Work activity sign-offs must be <u>co-initiated</u> by the trainer/supervisor and candidate then dated.

When the candidate has successfully demonstrated abilities in each of the critical work activities and experiences and skills checks to the satisfaction of the supervisor or trainer, he/she is eligible to take the online theory credentialing exam. The Affidavit of Successful Completion is completed and signed by the sponsor. It is co-signed by the trainer/ supervisor and the candidate, and then e-mailed to **support@nims-skills.org** to request access to the online theory exam. The candidate's sponsor will be notified when the online theory exam is made available on the NIMS testing system.

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## **Examiner's Checklist: Maintenance Piping Level I**

Critical Work Activities & Experiences	Date	Supervisor's or Trainer's	Candidate's	
All of the following statements must be completed prior to submission of the CAR	Completed	Initials	Initials	
1.1 Adhere to safety, health and environmental rules and regulations				
Describe use and selection of fire extinguishers				
Demonstrate use of fall protection safety in use of ladders and platforms				
Demonstrate use of common PPE for maintenance work to be performed				
Perform a job safety analysis of work to be performed				
Perform spill or release reporting procedure				
Perform spill or release clean-up procedure				
Perform injury reporting procedure				
1.2 Describe, locate, and interpret safety data sheets				
<ul> <li>Describe, locate, and interpret the following for safety data sheets:</li> <li>Locate current safety material data sheets for given machines or processes</li> <li>Interpret information on SDS and apply</li> <li>Determine appropriate PPE required</li> <li>Describe uses of SDS</li> </ul>				
1.3 Technical Documentations				
Locate and interpret function and operation using technical documents				
Identify symbols for duty area				
Demonstrate knowledge of how to locate and maintain maintenance documents				

Skill Check #1	Date Completed	Supervisor's or Trainer's Initials	Candidate's Initials
1.1 Interpret basic piping symbols and diagrams			
<ul> <li>Identify basic piping components given their ISA schematic symbol:</li> <li>Directional control valves, pressure control valve, flow control valves, cylinders, motors, instrumentation, pumps, various types of operators, filters</li> </ul>			
Interpret piping line types and symbols on a schematic			
Identify and explain connectors and fittings, specifications for processes			
Interpret the operation of a basic piping systems given a print			
1.2 Identify and select proper materials for installation and replacement			
Identify iron piping type and size by schedule and material			
Identify PVC/CPVC piping type and size by schedule and material			
Identify tubing type and size by OD/ID and material			
Identify hose type and size by OD/ID and material			
Identify and select correct materials for process/medium compatibility			
Select fittings, tools and sealant material for piping assembly given a schematic			
Select fittings, tools and sealant material for tubing assembly given a schematic			
Select fittings, tools and sealant material for hose assembly given a schematic			
1.3 Prepare material for installation or repair of piping systems			
<ul> <li>Prepare iron piping for installation:</li> <li>Determine appropriate measurement of materials for cutting</li> <li>Use a threading machines and cutting devices to prepare iron pipe</li> <li>Perform surface preparation of iron pipe</li> </ul>			
<ul> <li>Prepare PVC/CPVC piping for installation:</li> <li>Determine appropriate measurement of materials for cutting</li> <li>Use cutting devices to prepare pipe</li> <li>Perform surface preparation of pipe</li> </ul>			

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Skill Check #1	Date Completed	Supervisor's or Trainer's Initials	Candidate's Initials
Prepare steel tubing for installation:			
<ul> <li>Determine appropriate measurement of materials for cutting and bending</li> </ul>			
• Use a tube bender and cutting devices to prepare tubing			
Perform surface preparation of tubing			
1.4 Assemble and disassemble piping systems			
Remove and install threaded pipe and fittings			
Remove and install tubing and fittings			
Remove and install PVC and CPVC pipe and fittings			
Remove and install bolted piping flanges			

Skill Check #2	Date Completed	Supervisor's or Trainer's Initials	Candidate's Initials
1.1 Interpret basic piping symbols and diagrams			
<ul> <li>Identify basic piping components given their ISA schematic symbol:</li> <li>Directional control valves, pressure control valve, flow control valves, cylinders, motors, instrumentation, pumps, various types of operators, filters</li> </ul>			
Interpret piping line types and symbols on a schematic			
Identify and explain connectors and fittings, specifications for processes			
Interpret the operation of a basic piping systems given a print			
<b>1.2 Identify and select proper materials for installation and replacement</b>			
Identify iron piping type and size by schedule and material			
Identify PVC/CPVC piping type and size by schedule and material			
Identify tubing type and size by OD/ID and material			
Identify hose type and size by OD/ID and material			
Identify and select correct materials for process/medium compatibility			
Select fittings, tools and sealant material for piping assembly given a schematic			
Select fittings, tools and sealant material for tubing assembly given a schematic			
Select fittings, tools and sealant material for hose assembly given a schematic			
1.3 Prepare material for installation or repair of piping systems			
<ul> <li>Prepare iron piping for installation:</li> <li>Determine appropriate measurement of materials for cutting</li> <li>Use a threading machines and cutting devices to prepare iron pipe</li> <li>Perform surface preparation of iron pipe</li> </ul>			
<ul> <li>Prepare PVC/CPVC piping for installation:</li> <li>Determine appropriate measurement of materials for cutting</li> <li>Use cutting devices to prepare pipe</li> <li>Perform surface preparation of pipe</li> </ul>			

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Skill Check #2	Date Completed	Supervisor's or Trainer's Initials	Candidate's Initials
Prepare steel tubing for installation:			
<ul> <li>Determine appropriate measurement of materials for cutting and bending</li> </ul>			
• Use a tube bender and cutting devices to prepare tubing			
Perform surface preparation of tubing			
1.4 Assemble and disassemble piping systems			
Remove and install threaded pipe and fittings			
Remove and install tubing and fittings			
Remove and install PVC and CPVC pipe and fittings			
Remove and install bolted piping flanges			

Skill Check #3	Date Completed	Supervisor's or Trainer's Initials	Candidate's Initials
1.1 Interpret basic piping symbols and diagrams			
<ul> <li>Identify basic piping components given their ISA schematic symbol:</li> <li>Directional control valves, pressure control valve, flow control valves, cylinders, motors, instrumentation, pumps, various types of operators, filters</li> </ul>			
Interpret piping line types and symbols on a schematic			
Identify and explain connectors and fittings, specifications for processes			
Interpret the operation of a basic piping systems given a print			
1.2 Identify and select proper materials for installation and replacement			
Identify iron piping type and size by schedule and material			
Identify PVC/CPVC piping type and size by schedule and material			
Identify tubing type and size by OD/ID and material			
Identify hose type and size by OD/ID and material			
Identify and select correct materials for process/medium compatibility			
Select fittings, tools and sealant material for piping assembly given a schematic			
Select fittings, tools and sealant material for tubing assembly given a schematic			
Select fittings, tools and sealant material for hose assembly given a schematic			
1.3 Prepare material for installation or repair of piping systems			
<ul> <li>Prepare iron piping for installation:</li> <li>Determine appropriate measurement of materials for cutting</li> <li>Use a threading machines and cutting devices to prepare iron pipe</li> <li>Perform surface preparation of iron pipe</li> </ul>			
<ul> <li>Prepare PVC/CPVC piping for installation:</li> <li>Determine appropriate measurement of materials for cutting</li> <li>Use cutting devices to prepare pipe</li> <li>Perform surface preparation of pipe</li> </ul>			

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Skill Check #3	Date Completed	Supervisor's or Trainer's Initials	Candidate's Initials
Prepare steel tubing for installation:			
<ul> <li>Determine appropriate measurement of materials for cutting and bending</li> </ul>			
• Use a tube bender and cutting devices to prepare tubing			
Perform surface preparation of tubing			
1.4 Assemble and disassemble piping systems			
Remove and install threaded pipe and fittings			
Remove and install tubing and fittings			
Remove and install PVC and CPVC pipe and fittings			
Remove and install bolted piping flanges			

#### **Comments:**

# Affidavit of Successful Completion

NIMS ITM Maintenance Piping Level I Credentialing Program

Credentialing Achievement Record (CAR)

#### The affidavit must be filled-out in its entirety in order to ensure timely processing.

Candidate Name:	Date Completed:

The credentialing candidate named above has completed all necessary CAR requirements for NIMS ITM Maintenance Piping Level I Recognition. Site Name and Address:

Indicate successful completion of Critical Work Activities & Experiences and Skills Checks, by checking either Yes or No.

Maintenance Piping Level I		
	Yes	No
Successful completion of <b>Critical Work Activities &amp; Experiences</b> statements have been completed, dated, and co-initialed.		
Successful completion of Skill Check #1, all components have been completed, dated, and co-initialed.		
Successful completion of Skill Check #2, all components have been completed, dated, and co-initialed.		
Successful completion of Skill Check #3, all components have been completed, dated, and co-initialed.		

Sponsor Signature	Date
Trainer/Supervisor Signature	Date
Candidate Signature	Date

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

NIMS 10565 Fairfax Boulevard, Suite 10 Fairfax, VA 22030 http://nims-skills.org support@nims-skills.org