

## CNG Fuel System Inspector Exam Blueprint

% Test Questions	Domain	Objective		Knowledge (Remember)	Understanding (Describe or Explain)	Application (Apply, Calculate, Complete)
5%	1. Background Knowledge	1.1	Describe and apply knowledge of the properties and characteristics of natural gas to the inspection process.	X	X	X
		1.2	Describe the effects of temperature and pressure in CNG fuel systems.	X	X	X
		1.3	Describe and apply the steps necessary to conduct a leak check on high-pressure fuel system components and connections.	X	X	X
10%	2. Inspection Requirements	2.1	Describe the different types of fuel system inspections and when each is required.	X	X	
		2.2	Identify and describe the function of all components of a CNG fuel system	X	X	X
		2.3	Identify the steps and methods required to perform fuel system inspections under various conditions, including damage.	X	X	X
		2.4	Understand and apply CNG fuel system component manufacturing standards defined in NGV1, NGV2, NGV 3.1, FMVSS 304, and PRD1 to the inspection process.	X	X	X
		2.5	Understand and apply CNG fuel system component installation requirements stated in applicable versions of NFPA 52 to the inspection process.	X	X	X
		2.6	Understand and apply CNG fuel system component inspection requirements stated in CNG cylinder manufacturer's guidelines and CGA C-6.4 to the inspection process.	X	X	X
		2.7	Be familiar with state-specific CNG fuel system inspection requirements, where applicable.	X	X	X
		2.8	Know which codes and standards apply to which components and how to apply them	X		X

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10%	3. Preparation for Inspection	3.1	Identify and assemble tools required for the fuel system inspection; be able to select proper tools for different tasks required.	X	X	X
		3.2	Identify and select proper cleaning methods to be used prior to inspecting CNG cylinders.	X	X	X
		3.3	Investigate vehicle history, and apply the information obtained to the inspection process.		X	X
		3.4	Identify cylinder manufacturer guidelines and applicable version(s) of CGA C-6.4 and be able to apply them to the inspection process.	X	X	X
		3.5	Identify the appropriate version(s) of NFPA-52 and be able to apply them to the inspection process.	X	X	X
50%	4. Conduct detailed visual inspection of CNG cylinder shields, mounting systems, brackets, valves, Pressure Relief Devices (PRDs), vent lines and cylinders.	4.1	Ensure that brackets, valves, CNG cylinder shields, mounting systems and cylinders are installed according to all applicable codes and standards.	X	X	X
		4.2	Apply industry-accepted methods required to ensure that brackets, valves, CNG cylinder shields, mounting systems and cylinders are present, in good working order, not damaged and are not leaking.	X		X
		4.3	Ensure that pressure relief devices (PRDs) and vent lines are installed according to all required codes and standards.	X	X	X
		4.4	Apply industry-accepted methods required to ensure that PRDs and vent lines are in good working order, not damaged and are not leaking.	X	X	X
		4.5	Describe and identify the four types of CNG cylinders, their construction materials and manufacturing methods.	X	X	
		4.6	Understand, interpret and effectively apply CNG cylinder label data to the inspection process.	X	X	X

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		4.7	Using photographs, identify different causes of damage to CNG cylinders and determine damage levels.	X		X
		4.8	Using manufacturers' guidelines and/or CGA C-6.4, assess cylinders for Levels 1, 2 or 3 damage and determine required next steps.	X	X	X
15%	5. Conduct detailed visual inspection of high pressure CNG fuel system components	5.1	Visually identify the components of a CNG fuel system; describe their function, assembly sequence and types of damage or disrepair.	X	X	X
		5.2	Ensure that all CNG fuel system components are installed according to applicable codes and standards.	X	X	X
		5.3	Apply industry-accepted methods required to ensure that all required CNG fuel system components and their fittings are present, in good working order, not damaged and not leaking.	X	X	X
5%	6. Determine Final Disposition and Complete Inspection	6.1	Identify and record all required information on inspection form, including repair requirements.	X	X	X
		6.2	Based on inspection findings, determine proper final cylinder and component disposition.	X	X	X
		6.3	Identify and apply appropriate pass/fail labels to cylinders.	X	X	X
		6.4	Distribute completed inspection form to recipient(s) designated under specific conditions.	X	X	X
5%	7. Defueling, Decommissioning and Disposal	7.1	Identify cylinders that must be defueled as a result of conditions found during the inspection.	X	X	X
		7.2	Apply regulatory and manufacturer-required methods to dispose of condemned cylinders and/or fuel system components.	X	X	X