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# American Welding Society

## SENSE

### SENSE Level I - Trainee Checklist

(For Instructor's Use Only)

This checklist is intended to assist instructors in submitting trainee program completion documentation to AWS. This checklist may also be used for record-keeping purposes by the instructor, but is not an official completion document. Please do not submit this checklist to AWS as proof of **SENSE Level I - Entry Welder** completion.

The following requirements must be met for successful completion of **SENSE Level I - Entry Welder**.

- 1) Complete all of the following five modules and receive a passing score on their corresponding written exams.

#### Written Knowledge Test Scores – General Welding Knowledge Modules

Date	Score	Modules	Passing Score
		<i>1 – Occupational Orientation</i>	<i>No Test</i>
		2 – Safety and Health of Welders	100%
		3 – Drawing and Welding Symbol Interpretation	75%
		8 – Thermal Cutting Process †	75%
		9 – Welding Inspection and Testing	75%

† Completion of Units 1 and 3 minimum.

- 2) Complete at least one of the welding procedure modules and receive a passing score on the corresponding written exams.

#### Written Knowledge Test Scores – Welding Procedure Modules

Date	Score	Modules	Passing Score
		4 – Shielded Metal Arc Welding	75%
		5 – Gas Metal Arc Welding	75%
		6 – Flux Cored Arc Welding	75%
		7 – Gas Tungsten Arc Welding	75%

- 3) Receive a passing score on the Workmanship Performance Test for the welding procedure module(s) completed.

#### Workmanship Performance Test Results

Date	Welding Process Modules	Bend Test (SMAW) *		Visual Examination Results *	
		Pass	Fail	Pass	Fail
	4 – Shielded Metal Arc Welding			Pass	Fail
	• SMAW 2G Face-bend	Pass	Fail		
	• SMAW 2G Root-bend	Pass	Fail		
	• SMAW 3G Face-bend	Pass	Fail		
	• SMAW 3G Root-bend	Pass	Fail		
	5 – Gas Metal Arc Welding			Pass	Fail
	6 – Flux Cored Arc Welding			Pass	Fail
	7 – Gas Tungsten Arc Welding			Pass	Fail
	8 – Thermal Cutting Process			Pass	Fail

\* Visual examination and/or bend tests must pass for successful completion of selected module(s).

**4) When the trainee has met the above requirements and is ready for program completion, the instructor must submit the following to AWS Education Services:**

- Record of Successful Completion Level I – Entry Welder form
- Performance Qualification – Level I form
- Face & Root Bend Test Results - Level I form (SMAW Workmanship Performance Test only)
- \$15 fee (check) per trainee

**Notes and Recommendations:**

- Upon receipt of all necessary forms and payment, AWS will process the completion documents and issue an AWS SENSE Entry Welder Certificate to the trainee. The certificate will be mailed to the training organization, unless the mail to student box is checked on the Record of Successful Completion Level I – Entry Welder form.
- Incomplete completion form submissions or improperly filled out forms will be returned to the training organization.
- Please do not submit completion forms every time a trainee takes an exam. Wait until the trainee has reached a program completion point (as stated by SENSE program and the training organization's requirements) to submit all the necessary completion forms and fee.
- If the trainee completes more than one process at a later date, submit another record of completion along with a \$5 processing fee.
- Please do not submit forms with failing scores; these will be returned to the training organization. AWS will not issue an AWS SENSE Entry Welder Certificate if the minimum passing scores are not met.
- The trainee has three opportunities to take and pass the written examinations. If this is insufficient for a trainee to pass, then more training/instruction is recommended (stated in QC10, clause 6.13 on page 13.)

# SENSE Level I Welding Process Certification Test

## Module 2: Safety and Health of Welders

**Multiple Choice: Circle the letter which corresponds to the correct answer.**

1. Potential hazards relating to arc welding are

- a) radiation.
- b) fumes.
- c) toxic gases.
- d) all of the above.

2. When using a fire extinguisher to extinguish a fire, it should be

- a) pointed at the base of the fire.
- b) moved up and down to cool the flames.
- c) pointed at the top of the fire.
- d) held within six (6) inches of the flames.

3. What type of fire extinguisher should be used on electrical fires?

- a) Type A
- b) Type B
- c) Type C
- d) Type D

4. What are the initials of the federal organization created to insure safe and sanitary working conditions for employees?

- a) FAA
- b) IRS
- c) FDA
- d) OSHA

5. The maximum safe working pressure for Acetylene is

- a) 10 psi.
- b) 15 psi.
- c) 20 psi.
- d) 32 psi.

6. Vaporized metals, such as zinc, cadmium, lead, chromium and beryllium

- a) are hazardous.
- b) can be ignored.
- c) are highly flammable.
- d) may cause slag inclusions.

7. Fuel gas hoses are usually colored

- a) green.
- b) red.
- c) blue.
- d) yellow.

## SENSE Level I Welding Process Certification Test

### Module 2: Safety and Health of Welders

8. Flash burn is

- a) another name for a severe sunburn.
- b) a burn caused by the welding arc coming in contact with bare skin.
- c) a burn to the eye caused by exposure to ultraviolet light from the welding arc.
- d) damage to equipment and clothing due to the extreme heat of the welding arc.

9. One should **never** enter a welding shop without wearing

- a) gloves.
- b) safety glasses.
- c) a welding helmet.
- d) welding leathers.

10. What should one **never** use on gas cylinders, regulators, connections and hoses?

- a) Wrenches
- b) Teflon tape
- c) Leak detectors
- d) Oil

11. One should **never** cut or weld directly against

- a) cast iron.
- b) concrete.
- c) a workbench.
- d) a non-flammable surface.

12. One should **never** operate arc welding equipment while

- a) standing on wet or damp floors.
- b) in poorly lighted areas.
- c) someone is standing near by.
- d) in a confined area with proper ventilation.

13. A burn that causes the skin to blister is referred to as a

- a) first degree burn.
- b) second degree burn.
- c) third degree burn.
- d) fourth degree burn.

14. The selection of a correct lens shade number depends on the

- a) brightness of the sun in the area.
- b) type of shielding gas being used.
- c) amount of welding current being used.
- d) filler metal being used.

## SENSE Level I Welding Process Certification Test

### Module 2: Safety and Health of Welders

15. Federal regulation requires that hazardous information about a product be provided to all users of that product. The form used to provide this information is called a(n)

- a) Information Form (IF).
- b) Hazardous Information Sheet (HIS).
- c) Occupational Safety and Hazard Form (OSHF).
- d) Material Safety Data Sheet (MSDS).

16. Which of the following is the only acceptable method for lighting oxyfuel torches?

- a) Matches
- b) Cigarette lighter
- c) Welding arc
- d) Striker

17. Areas that have less than \_\_\_\_\_ cubic feet per welder, or that have ceilings less than 16 feet high, require forced ventilation.

- a) 4,000
- b) 8,000
- c) 10,000
- d) 12,000

18. A confined space is one that

- a) has a flammable atmosphere.
- b) has unrestricted means of entry or exit for employees.
- c) is designed for continuous employee occupancy.
- d) is large enough that a person can enter and perform tasks.

19. A Hot Work Permit

- a) authorizes the performance of work potentially posing a fire hazard.
- b) promotes the development of standard fire safety guidelines.
- c) records unsafe conditions at a job site.
- d) helps the manager keep records of hazardous spaces.

***True or False: For each statement provided in questions 20 through 35 circle (a) if True and (b) if False.***

20. While welding, ventilation should be placed as close to the fume source as practical.

- a) True
- b) False

21. Because of the low amount of ultraviolet light present, it is **not** necessary to use shaded lenses when oxy-fuel cutting.

- a) True
- b) False

## SENSE Level I Welding Process Certification Test

### Module 2: Safety and Health of Welders

22. Long hair, loose-fitting clothes, and ties are personal safety hazards around rotating equipment.

- a) True
- b) False

23. A butane or propane cigarette lighter is safe around welding equipment as long as it is kept in one's pocket.

- a) True
- b) False

24. A fully charged oxygen cylinder contains approximately 225 psi at 70° F.

- a) True
- b) False

25. Safety glasses are **not** required when welding with the helmet down.

- a) True
- b) False

26. Skin contact with liquid oxygen can cause frostbite.

- a) True
- b) False

27. Gas cylinders **must** be chained or secured at all times.

- a) True
- b) False

28. Oxygen cylinders should **never** be stored with flammable gases such as acetylene cylinders.

- a) True
- b) False

29. In order to maintain production, it is acceptable to operate welding equipment beyond its rated capacity.

- a) True
- b) False

30. When not in use, an electrode holder, GTAW torch or MIG gun should **not** be placed in contact with a grounded metal surface.

- a) True
- b) False



## SENSE Level I Welding Process Certification Test Module 2: Safety and Health of Welders

31. Acetylene cylinders should **never** be operated while lying on their side because acetone could be drawn into the valve, regulator and hoses.

- a) True
- b) False

32. One should **never** touch an electrode to a metal surface other than the workpiece because those surfaces may become electrically live.

- a) True
- b) False

33. ANSI Z49.1 allows oxygen to be used as a substitute for compressed air when necessary.

- a) True
- b) False

34. Burns are some of the most common and painful injuries in a welding shop.

- a) True
- b) False

35. Fuel gas fittings are equipped with left hand threads.

- a) True
- b) False

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