Suggested Study Topics

Level II Visual Testing Weld - General Certification Examination

Note: This is not a complete list of the topics that may be covered on a certification examination. It should be used only as a guide to assist you in preparing to take a certification examination exam.

1. Describe the importance of following procedures
2. Describe the differences of direct and indirect visual inspection
3. Describe conditions that can distort a visual inspection (i.e. lighting, heat…)
4. Describe the general process of how the eyes take in images and colors
5. Describe inherent, primary processing, second processing and in-service discontinuities
6. Describe the general differences between borescope and fiberscope
7. Define terms (i.e. hue, brightness, ambience, saturation, resolution, erosion, incomplete penetration, insufficient throat, lack of fusion, stringers, undersize weld
8. Describe the importance of yearly visual acuity examination
9. Determine the magnification power of a lens (M=10/f)
10. Identify tools that can be used to measure the ID and OD of a tube
11. Define the magnification limits for hand held pocket magnifier
12. Identify tools that would be used to measure the profile of a weld or misalignments
13. Describe the components of a weld joint fit-up that require visual inspection
14. Describe the components of a welding symbol
15. Describe what inspection tool is used to measure pits on the surface of the part
16. Describe the intensity of light that is considered acceptable when conducting visual inspection
17. Describe the different types of discontinuities that are produced by typical welding processes

Reference Sources:

- Nondestructive Evaluation and Quality Control Vol. 17
- Handbook of Nondestructive Evaluation – CJ Hellier McGraw-Hill
- ASTM 1316 – terms used in nondestructive testing
- http://www.ndt-ed.org/index_flash.htm NDE/NDT Resources
- www.asnt.org – American Society for Nondestructive Testing