

Appendix IV: Equipment Maintenance and Verification

I. INTRODUCTION

Typical tools used in the Document Section include magnifying devices, specialized lighting, laboratory instrumentation and the Electrostatic Detection Apparatus (See Appendix VI). The examiner must maintain the equipment and verify its performance when necessary.

II. MAINTENANCE AND VERIFICATION PROCEDURES

Laboratory equipment should be maintained and/or verified as follows:

- A. Magnifying devices: Lenses and other parts that can be easily reached should be cleaned prior to use. Microscopes should be professionally cleaned on an as needed basis.
- B. Electrostatic Detection Apparatus (ESDA): Any maintenance shall be conducted by a properly trained technician. The consumable supplies used for the ESDA are not considered critical and will be obtained from Foster & Freeman, Ltd., or an equivalent manufacturer. Supplies shall be verified prior to use through a single test sheet run. Control standards will be run along with casework to verify proper results.
- C. Alternate light sources (VSC 6000/HS): Lamps, filters and fuses shall be replaced as needed. Appropriate controls will be run prior to using this instrument in casework.
- D. Microphotospectrometer (VSC 6000/HS): Lamps, filters and fuses shall be replaced as needed. Appropriate controls will be run prior to using this instrument in casework.
- E. Maintenance that is completed on laboratory equipment shall be recorded in the equipment's maintenance log.

REFERENCES

- 1. Foster and Freeman, LTD. ESDA Operating Instructions
- 2. Foster and Freeman, LTD. VSC 6000 Video Spectral Comparator Hardware Manual
- 3. Foster and Freeman, LTD. VSC 6000 Video Spectral Comparator Software Manual, November 2011

Equipment Maintenance and Verification

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| 6 th Revision | 3/22/12 | Added information on VSC 6000 information. |

Approval

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Issuance

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