



# SPECIFICATION

## SPECIFICATION FOR BLACK LIGHT INSPECTIONS

| APPROVALS   | DATE | REV | DCN NO. | BY | CHECK | DCC | DATE |
|-------------|------|-----|---------|----|-------|-----|------|
| AUTHOR:     |      |     |         |    |       |     |      |
| CHECKED:    |      |     |         |    |       |     |      |
| APPROVED:   |      |     |         |    |       |     |      |
| DCC RELEASE |      |     |         |    |       |     |      |

### SPECIFICATION TABLE OF CONTENTS

- 1.0 Purpose**
- 2.0 General**
- 3.0 Responsibilities**
- 4.0 Procedure**
- 5.0 Required Documentation**

**SPECIFICATION FOR BLACK LIGHT INSPECTIONS****1.0 PURPOSE**

This specification covers the procedure to be used for black light inspections of cleaned LIGO Vacuum Components. The Seller shall incorporate these requirements in their procedures.

**2.0 GENERAL**

- 2.1 Cleaning shall be performed by an engineer, technician or shop worker familiar with this procedure and the manual for use of the ultraviolet lamp.
- 2.2 Inspection shall be done in a darkened area.
- 2.3 A 100 watt ultraviolet lamp with a wavelength of 365 nm shall be used.

**3.0 RESPONSIBILITIES**

- 3.1 Cleaning shall be performed by an engineer, technician or shop worker familiar with this procedure and the manual for use of the ultraviolet lamp.

**4.0 PROCEDURE**

- 4.1 Turn on the lamp and allow it to warm up for 3-5 minutes.
- 4.2 The operator shall enter the darkened area and allow 2-3 minutes for his eyes to adapt to the low light level.
- 4.3 Inspect the cleaned surfaces, holding the lamp 8-12 inches from the surface. Be careful to distinguish between ultraviolet fluorescence and reflected purple visible light.
- 4.4 Record the description and location of any detected contamination and issue a Discrepancy Report.

**5.0 Required Documentation**

Inspection results shall be recorded on the component cleaning data sheet.