BOMBARDIER
Toronto Site
PROPRIETARY INFORMATION

PPS Revision Notice

As of February 26, 2019, the following PPS's have been released, having been revised as noted below:

PPS 6.10, Issue 21 - Cleaning of Fluid System Components

- Deleted Burndy Yav-R and YAV-RS HYLUG lugs from the PPS as these series of lugs are uninsulated.
- Added Burndy YAEV-RS insulated lugs.
- Deleted use of Canon CBT-600 and Pico 400B pneumatic crimp tools.

PPS 20.03, Issue 38 - Fluorescent Penetrant Inspection

- Added Bombardier Toronto Level 3 NDT signatory approval.
- Added new DH 5115 Form. Revised forms DH 5113 and DH 5114 titles.
- Deleted reference to DH 5118 Form, as it is no longer relevant.
- Specified that laboratories performing process control tests must have a Quality Management System (QMS) accredited to ISO 9001, ISO 17025, NADCAP AC7006, or AS9100.
- Specified that acetone should be to ASTM D329.
- Specified that IPA should be to Federal Specification T-T-I-735 Grade A or B.
- Specified that wipers used in FPI should be lint-free.
- Added extra criterion for black light sources.
- Added extra criterion for LED black light sources.
- Added extra requirements for light meters.
- Added use of comparative gauges.
- Added use of magnifying glass with 10X magnification.
- For Facility approval, replaced "Bombardier Toronto Engineering" with "Bombardier Toronto NDT Level 3".
- Defined the following terms to avoid repetitiveness throughout document: "MRB" (Material Review Board); the term "black light" vs "UVA light"; and the term "Level 3 NDT" (this does not include where Bombardier Toronto NDT Level 3 is specified, as this would be specific to a Bombardier Toronto Site personnel only).
- Added additional requirements for the use of LED black light. Specified that LED black light must meet the requirements of ASTM E3022.

- Specified that the temperature of the parts, penetrant and room should be within the range of 50°F to 125°F (10°C to 52°C) for penetrant inspection in place of 40°F to 120°F (4°C to 49°C).
- Added Inspection and Rinse Station requirements section.
- Modified white light and black light requirements (see Table I of PPS).
- Replaced DH 5114 Form with forms DH 5113, DH 5114 and DH 5115.
- Specified for immersion application of penetrant, the penetrant must be allowed to dwell on surfaces to be inspected for a minimum period of 20 minutes. The immersion time must be no longer than one half the total dwell time.
- Specified for solvent removable fluorescent penetrants (in-situ method), allow the penetrant to remain on the part for a dwell time of at least 35 minutes before removal of excess penetrant in place of 30 minutes.
- Specified for both dry powder and aqueous developers, the maximum developing dwell time must be 60 minutes in place of 4 hours for dry powder developers. Specified parts not inspected before the maximum developing dwell time must be cleaned, dried and re-processed.
- Specified that all calibrated equipment must display a calibration sticker noting, as a minimum; the company performing calibration, calibration and re-calibration date using traceable standards per ISO 10012-1.
- Specified when a UVA LED lamps repair is required, the repair must be performed by the original manufacturer or a repair centre authorized by the manufacturer. The manufacturer or authorized repair centre must warrant the lamp repair and demonstrate conformity to ASTM E3022.
- Specified for Qualification/Re-Qualification of Known Defect Standards and System Performance checks, it is not required for In-Situ applications.
- For Water Temperature Gauge, revised check frequency from 3 months to 6 months.
- Added requirement to perform LED UVA lamp beam uniformity and output stability check.
- Modified requirement for battery operated black light sources.
- Modified dryer calibration testing requirements.
- Replaced ISO 10012 with ISO 10012-1.
- Specified at Bombardier Toronto, dispose of chemical wastes according to EHS-OP-005.

PPS 22.06, Issue 10 - Screen Printing - Direct Process

- Added new Facilities Requirements section (i.e., this PPS has been categorized as a Controlled Special Process according to PPS 13.39).
- Revised Personnel Requirements section to refer to PPS 13.39 for additional requirements.
- Added new Disposal of Chemical Wastes and Storage sections.
- Added new paragraph to Safety Precautions section that the safety precautions specified herein are specific to Bombardier Toronto to meet Canadian Federal and Provincial government environmental, health and safety regulations. It is strongly recommended that other facilities consider these safety precautions; however, suppliers, subcontractors and partners are responsible for ensuring that their own environmental, health and safety precautions satisfy the appropriate local government regulations.
- Added additional storage information for material.

PPS 22.07, Issue 6 - Screen Printing - Reverse Process

- Added new Facilities Requirements section (i.e., this PPS has been categorized as a Controlled Special Process according to PPS 13.39).
- Revised Personnel Requirements section to refer to PPS 13.39 for additional requirements.
- Added new Disposal of Chemical Wastes and Storage sections.
- Added new paragraph to Safety Precautions section that the safety precautions specified herein are specific to Bombardier Toronto to meet Canadian Federal and Provincial government environmental, health and safety regulations. It is strongly recommended that other facilities consider these safety precautions; however, suppliers, subcontractors and partners are responsible for ensuring that their own environmental, health and safety precautions satisfy the appropriate local government regulations.
- Specified to always use the oldest stock first (i.e., first in/first out (FIFO) basis).