



# Standard Operating Procedure (SOP) for Bowling Ball Testing at USBC Team Trials

## Introduction

The Team USA Trials feature elite athletes competing for the opportunity to represent the United States in international competition. Based on International Bowling Federation rules, all slow oil-absorbing high-performance (urethane) bowling balls will be allowed for use.

For this USBC Team Trials event, balls will only be tested if another competitor files a protest or if staff deem it necessary. This document lays out the standard operation procedures for this event and equipment testing.

## Purpose and Scope

**Purpose:** This SOP provides a comprehensive guide for the bowling ball inspection process, focusing on transparency, efficiency and consistency.

**Scope:** Definition and acronyms, roles and responsibilities, tools and systems, process overview, inspection and testing, non-compliant equipment and communications.

### 1. Definitions and Acronyms

- **Slow Absorption:** Any ball with an oil absorption time greater than 90 minutes.
- **High Performance:** Advanced, often asymmetrical weight block designed to produce a more aggressive and dynamic reaction on the lane, characterized by a high differential and typically a low radius of gyration (RG).
- **Non-High Performance:** Balls with weak cores and cover stocks that are typically used for spare shooting. Note: Currently approved rubber and polyester or "plastic" balls are considered non-high-performance balls regardless of their other properties.
- **Durometer:** A tool used to measure the hardness of materials like rubber and plastic by pressing a presser foot into the material's surface.
- **CG:** Center of Gravity.

### 2. Roles and Responsibilities

- **Senior Director, Short-Duration & Manager of Short Duration Tournaments & Collegiate Bowling:** Ensure all testing protocols are followed and documented.
- **Equipment Specifications Team:** Compile and maintain all data gathered from the event. In addition, train the Senior Director, Short-Duration & Manager of Short Duration Tournaments & Collegiate on set-up, calibration and use of the electronic durometer.



### 3. Tools and Systems

- Automated Testing Stand
- Durometer (for checking ball hardness)
- Infrared Temperature gun
- Ball Inspection Forms
- Data Collection Sheets

### 4. Protest of Bowling Ball

All bowling balls that are being protested by another competitor will be inspected by the Senior Director, Short-Duration and/or Manager of Short Duration Tournaments & Collegiate Bowling.

### 5. Inspection & Testing Process

- Competitors are required to present any bowling balls being protested for inspection.
- Visual Inspection** - each bowling ball will be rotated to verify:
  - The manufacturer logo and serial number are present.
  - There are no cracks or fissures.
  - There are no extra holes.
  - There is a gripping orientation mark if no thumbhole.
  - Balance - CG orientation.
  - There is no evidence of tampering.
- Testing** – Equipment identified as slow oil-absorbing high-performance bowling balls will be subject to random checks for temperature and hardness.
  - The ball will be placed by the staff team lead in the testing apparatus and checked in five (5) spots around the equator of the ball (compared to the pin).
  - The ball will simultaneously be checked for temperature with an infrared thermometer.
  - The following data will be collected from the testing: The name of the ball, the ball's serial number, the temperature of the ball and the durometer reading of each punch (5).

**Note:** In addition to the testing of protested bowling balls, USBC may periodically conduct testing sessions during the course of event
- All compliant bowling balls will be returned to the competitor.

### 6. Non-compliant Equipment

- If a non-compliant bowling ball can be repaired/fixed, it may be used in competition provided the repair work is completed and the ball goes through the inspection and testing process and deemed compliant.
- If a non-compliant bowling ball cannot be repaired/fixed or is ineligible for any reason(s) (including but not limited to missing the manufacturer logo, ball type, serial number, cracks or fissures, extra holes, missing grip orientation marks, out of balance -CG orientation, or evidence of tampering), the ball must be removed.



- i) If a ball is knowingly tampered with to no longer meet USBC specifications, as stated in the USBC Equipment Specifications and Certifications Manual (USBC Rule 17a-1), the competitor is subject to disqualification and forfeiture of all points and prize money earned
- c) When a ball is removed from competition for not meeting Tournament rules and USBC specifications:
  - i) A non-compliant equipment form (see Appendix A) will be completed and signed by a tournament official.
  - ii) A copy of the form given to the bowler.
  - iii) The ball is placed in safekeeping until the conclusion of the squad.
  - iv) A ball removed from for competition for hardness will be forwarded to USBC Equipment Specifications for additional testing.

# USBC Tournaments Bowling Ball Non-Compliance Form

Please Print

Date: \_\_\_\_/\_\_\_\_/\_\_\_\_

Squad Time \_\_\_\_\_

Name & USBC #: \_\_\_\_\_

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## Ball Data

Brand \_\_\_\_\_

Model \_\_\_\_\_

Serial Number \_\_\_\_\_

Color \_\_\_\_\_

## Reason(s) for removal:

Ineligible Ball List Y / N

Weight Hole Y / N

Gross Weight Y / N

Cracked Ball Y / N

Visible Logo Y / N

Serial # Y / N

Balance Y / N

Hardness Y / N

Durometer Reading: Spot 1 \_\_\_\_\_ Spot 2 \_\_\_\_\_ Spot 3 \_\_\_\_\_ Spot 4 \_\_\_\_\_ Spot 5 \_\_\_\_\_

This ball has been deemed ineligible for use at this USBC Tournament. Y / N

This ball is ineligible for use in any certified USBC league or tournament. Y / N

Official's Signature \_\_\_\_\_

Bowling Ball Returned Y / N

Bowler's Signature \_\_\_\_\_