

**Name of Procedure:**

Toxicology Mettler Balance (PM4600)

**Suggested Uses:**

For use in the Toxicology unit to weigh chemicals used to prepare reagents.

**Apparatus Used to Perform Procedure:**

Mettler Model PM4600

Paper, boxes, plastic bags or other appropriate weighing vessels

**Calibration:**

1. Calibration for all Drug Chemistry Section balances is done on a yearly basis by an approved outside contractor.
2. Certificates of Calibration issued by the contractor will be stored in a file in the Section Conference Room.

**Calibration Verification:**

1. The balance will have the calibration verified monthly with a set of standard weights.
2. Balance verifications are to be performed as follows:
  - a. Turn on the balance.
  - b. Follow manufacturer's recommendations for leveling.
  - c. Zero the balance with nothing on the pan.
  - d. Place the standard weight on the pan and read results.

The following chart lists the weights to be used and the acceptable ranges:

**Model PM4600 (Standard Deviation 0.03g)**

Standard Weight	Acceptable Range
10 gram	9.97g – 10.03g
5 gram	4.97g – 5.03g
1 gram	0.97g – 1.03g

If results are within the range listed, the balance can be used. If the results are outside these parameters, the balance will not be used until all necessary steps have been taken to bring the balance into compliance. Steps may include cleaning, leveling, re-taring, or contacting an approved service contractor.

3. Results of calibration verifications will be documented and maintained.
4. The Coordinator of Toxicology is responsible for performing the monthly calibration verification and documenting the results.

**Application of Procedure:**

1. Choose desired units of measure according to balance instructions.
2. Tare the weighing vessel that will be used.
3. Place the item to be weighed on the weighing vessel.

**Literature Reference:**

Operator Manual for the balance model.