IN-HOUSE PROCEDURE # _____

PROCEDURE FOR CALIBRATION OF SCALES OR BALANCES
(AASHTO M 231)

Item:
Scale or balance

Purpose:
This method provides instructions for checking the accuracy of scales and balances.

Inspection Equipment Required:
1. General purpose weights reaching at least 90 % of the scale's capacity.
2. Level to check the scale's level position if one is not built into the unit.

Tolerance:
Equipment shall meet the dimensional tolerances specified in the applicable test method.

Procedure:
1. Turn electronic scales on and allow for a warm up period of approximately 30 minutes.
2. Ensure that the scale base is seated on all corners.
3. Level the scale. (NOTE: Some levelling devices are located under the scale pan.)
4. Be aware of *excessive* air movement during the calibration process. Document if air movement appears to be excessive.
5. Zero the scale.
6. Choose approximately 10 weights covering at least 90 % of the scale's full capacity. Place the selected weights on the pan in increasing increments. Record the mass of the weight checked and the scale reading. The difference at any point may not exceed the required accuracy.
7. Check for "Off-Center Error" to ensure that the allowed tolerances are met when loads are moved around on the scale platform. Place randomly selected loads at various positions on the pan and observe any differences in readings. The difference between the lowest and highest reading for any load is the maximum "Off-Center Error". This error should be within the accuracy range listed for the class of scale and load being checked.