



Guide for Measuring Moisture in Recovered Paper Bales

Introduction

This guide is presented as a way to improve the consistency and accuracy of measuring moisture in bales of recovered paper.

Disclaimer

This guide does not establish specifications for any transactions involving recovered fiber bales. The terms of any transaction regarding recovered paper are set by the buyer and seller. Buyers and sellers may agree to use specifications like those outlined in the Institute of Scrap Recycling Industries (ISRI) *Scrap Specifications Circular* or other terms and conditions that they mutually agree to use.

This material does not include all practices for all situations. The use of this material is neither required nor recommended by AF&PA. It is provided for use by individuals as they desire and at their sole discretion. It is the independent decision of each buyer and seller whether to use this material.

Bale Selection

Controls should be put into place to ensure that bales are inspected systematically. For example:

- Every day a number of loads should be examined and each month all the suppliers should have several loads examined.

Testing should be done at random. Loads to be measured can be chosen at random every day or can be predefined but without advanced notice to the supplier.

If a significant content of moisture is visually detected in a load, moisture measurement should be made, even if it was not planned.

Four bales should be measured from a truck delivery; eight bales from a railcar delivery. Bales should be selected from the front, middle and back of each truckload. Bales from railcars should be selected from the right, center and left sides.

Sequence for Measuring Moisture

Measurement should be done at the time that bales are unloaded.

At least three measurements should be taken from each bale selected for inspection.

There are several surface or probe devices in the market to measure the moisture content of a bale. Use of devices recognized by technical institutes is highly recommended.

Use a calibrated instrument and follow the manufacturer's instructions to ensure accuracy of measurements taken.

If using a surface measurement tool,
Each bale should be tested once on top and once on either side.

Readings should be made on flat surfaces on the bale, not on rounded edges and not touching wires.

If using a probe-type measurement device,
Three readings should be taken on each bale: one reading from the middle of the bale, one from the middle of the first half of the bale and one from the middle of the second half of the bale.

Recording Results

Average all of the readings to obtain the average moisture of the load. Record the measurement as part of the receiving report.

Sample Tools for Measurement

The two tools listed below can be used to determine moisture content in bales of recovered fiber and are known to be used by industry professionals. The two most common types of moisture meters are probe and surface measurement tools.

AF&PA does not endorse or recommend use of these products.

Aquamoist Model DC-2000-BP

The Aquamoist Model DC-2000-BP is a probe-type moisture meter. This pocket-sized instrument can detect moisture content from a range of five to 25 percent. The probe can be pushed through the surface to measure the moisture content of a bale of recovered fiber at any depth greater than one inch.

Emco AP500 Moisture Meter

The Emco AP500 Moisture Meter is a surface-type moisture measurement instrument. This lightweight tool can be used with one hand and is able to store collected data. The meter measures moisture content up to 11.75 inches deep.