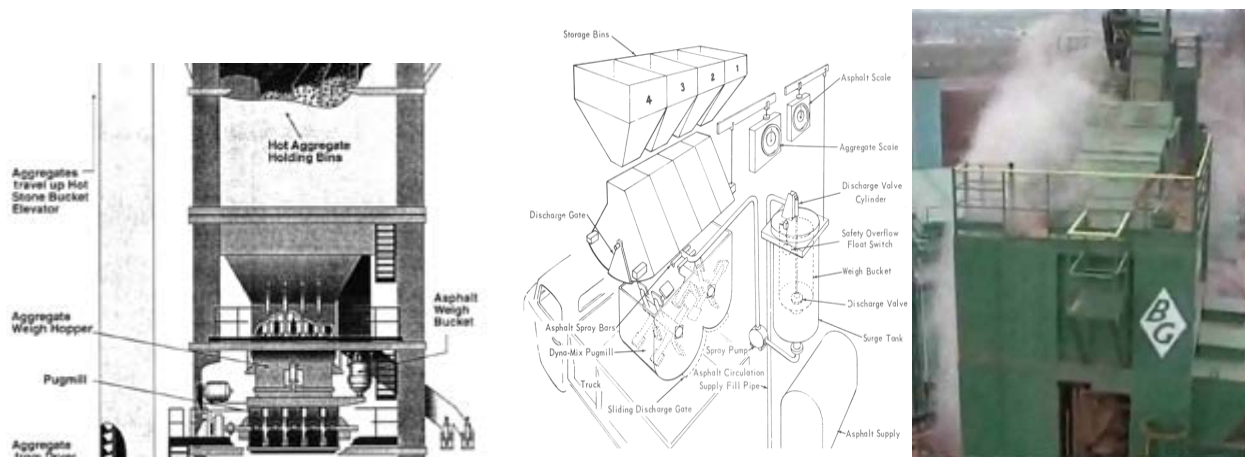


# Tune up your QC Dept .. e-Quality Control Workshop addresses issues affected by Plant Operation. On-Line. Anytime, Anywhere.

The Curriculum we offer people interested in Quality Control is made up of 5 of the modules Plant Managers and Operators are being trained when they participate in the Plant Operation workshop (14 Modules). These 5 modules (P4-P8) are listed below. The two downloadable spreadsheet calculators (e-Flow Scale Calculator and e-Spot Check) included in the workshop to aid in calibrating continuous weigh scales and troubleshooting quality control issues stemming from the plant. This Curriculum teaches QA personnel the issues at the plant that affect mix quality and what can be done to fix problems as they happen. These modules are concerned with the proper blending of all materials from the stock piles and tanks and feeder bins and baghouse fines delivery all the way through the silo and into the truck.



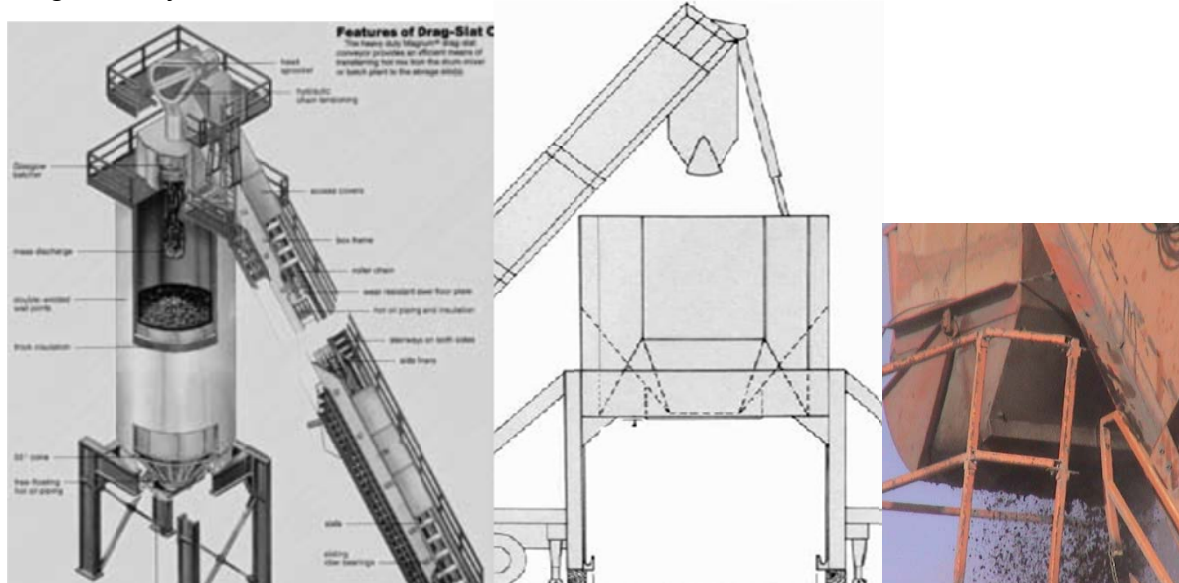
## 4 Batch Plant Operation (Optional .. for those with Batch Towers)

Some Batch Plants are unnecessarily running slow while producing lower quality (oxidized) mix. How can you fix both at the same while reducing maintenance and energy costs at the same time? The mix is too rich. How do you find out what is causing the problem? Some plants will produce a dryer batch every now and then. Why, and what can be done? Adding rap into the boot of the elevator, into the weigh hopper, into the mixer; these methods have their benefits and disadvantages. Which way is best for you?



### 5 Aggregate Storage, Handling and Feeder Systems

Aggregate stockpiling and handling, Cold feed Bins, Rap Bins are volumetric feeders and relatively easy to understand. When the basics are overlooked, big problems happen. Mineral filler and dust silos can be difficult if not equipped correctly. Now, with SMA and WMA, we are adding all sorts of material to our mix from wax beads to water, or fiber to powders, even liquid chemicals. Venting gets to be a problem with some weighing devices when blowing material in the silo and blowing material away from the silo discharge scale. The Exhaust Fan is a dust feeder. The more the damper is opened, the more dust is taken from the dryer. The baghouse is a feeder being fed by the exhaust fan. The dust makes a pit stop in the baghouse before being returned in surges. Why is that and what can be done to fix it.



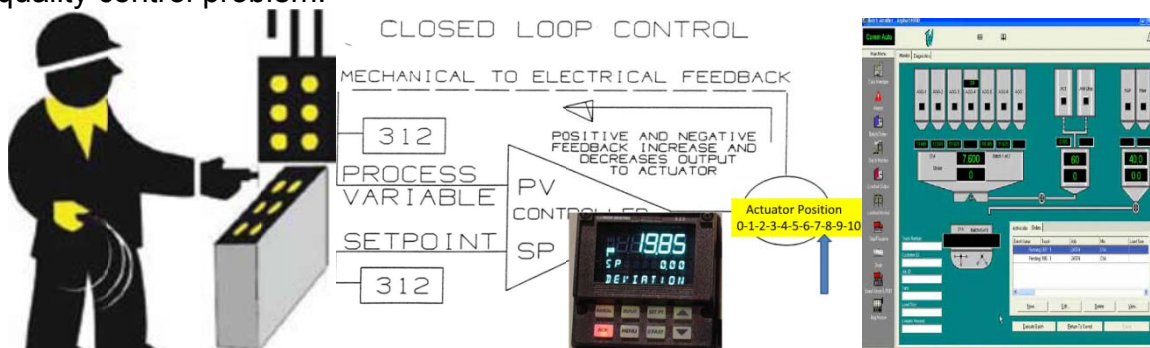
### 6 Asphalt Mix Silo Operation

Asphalt mix fed to the silo well mixed may be fed into the truck somewhat segregated. The method of how the silo is being depleted may be causing rapid silo cone wear. Truck loading procedures may affect segregation. Temperature loss of mix passing through the silo proper may be caused by more than what seems to be obvious. Some methods of control is better than others.



## 7 Scales and Meters

Continuous weigh scales are the most difficult to install, calibrate and maintain. Belt Scales, Flow Scales, Flow Meters etc may be made accurate for the rate the scale was calibrated at but may not be accurate at rates significantly different than the calibration rate. Learn how to check for that while in operation and then correct it. Learn how to spot check problems as the plant is producing. Stop the process before making all that bad mix. e-Flow Scale Calculator logs in all your Calibration tests and calculates the new span based on the performance of the last test. e-Spot Check Calculator compares the 1) mix design with the 2) amount of material passing through the silo and 3) all the scale totalizers and 4) all available volumetric readings. The resulting comparisons are matched against the mix spec tolerances. Any of the scale readings falling out of acceptable tolerances become highlighted in yellow. The additional beauty and power of this program is the ability to continuously monitor the blending control to confirm proper operation. This is especially helpful when troubleshooting a quality control problem.



## 8 Control System Operation

Control systems are always changing. When something is wrong and they're not operating correctly, it can be hard to find the problem when lacking the understanding of the dynamic changes. A step by step procedure from open loop control through the many closed loop control situations and theoretical plant control problems are introduced. Participants are asked for ideas of the symptoms of the control behavior. The role is reversed later when symptoms are presented and participants are asked what the problems may be. Control systems are made up of all types of electro-mechanical devices. This module makes it easy to understand.

**Plant Quality Assurance (P4-P8) \$595 plus \$95 for optional Color Reference Manual**

Experience for yourself what web based training is like. Any time. Even right now. Click this e-Plant Operation Workshop Sampling Link  
<http://clarencerichard.adobeconnect.com/QCdemo>