Vince Aurilio, Executive Director
Ontario Hot Mix Producers Association
Spring Operations Seminar
April 20, 2016
WoA Stats

• Almost 9000 attendees
• 18 % more than 2015; about 38 % more than 2013
• Largest exhibit floor – 157,000 sq. ft.
• More exhibitors than past years
• Excellent technical program
• ~ 15-20 OHMPA Members
Lots of Equipment Featured
OHMPA Members

From an exhibitors perspective, this was the best ever WOA...
Plants
Pavers
Material Transfer
Rollers
Some Different Stuff
Old Friends
Technical Program

Education Session Schedule

Monday, March 21st

11:30 – 1:45 p.m.

1:00 – 1:45 p.m.

Tuesday, March 22nd

11:30 – 1:45 p.m.

1:00 – 1:45 p.m.

Education Session Schedule

Wednesday, March 23rd

11:30 – 1:45 p.m.

1:00 – 1:45 p.m.

Education Session Schedule

Thursday, March 24th

11:30 – 1:45 p.m.

1:00 – 1:45 p.m.
Excellent Sessions!

1. Mix Design – Changing the Recipe Book, D. Newcomb
2. Effective Community Outreach & Communication, B. Beyke
3. Trouble-Shooting AC Content Problems (Part 2), TJ Young
4. HMA Plant Maintenance & Energy Efficiency, D. Garrett
New Challenges?
Balanced Mix Design

Maximum Allowable Density = 98%
Opt. Asphalt Content < 5.4%

a. Volumetric Analysis to Set Max. Asphalt Content

Example: OT Req. > 300 cycles

b. Overlay Tester Results

HWTT Rutting at 20,000 Cycles, in.

Example: HWTT Req. < 0.5 in.
c. HWTT Results

- Maximum Asphalt Content = 5.4%
- Opt. Asphalt Content (OAC) = Lowest Asphalt Content for Cracking Resistance or Highest Asphalt Content for Rutting Resistance
- OAC = 5.1%
d. Summary of Results
Balanced RAP/RAS Mix Design

• Hamburg test for rutting/moisture damage
• Overlay test for cracking

*OT requirement determined by Overlay program*

• Max. density-98% for controlling potential bleeding
Common Complaints

- Noise
- Odor
- Visible air emissions
- Traffic
- Dust
- Is it toxic?
What Should You Do?

- State position clearly, succinctly, without overwhelming technical information.
- Offer facility tour, if appropriate.
- Document that you are a good, corporate citizen in community.
- Get them to contact you instead of calling regulatory agency.
Conclusion

- Environmental activist groups are gaining ground across the country.
- Better to be proactive.
- Establish and implement company programs.
- Build community relations and trust.
- Stay cool, listen, respond appropriately.
Trouble-Shooting Problems

Trouble-Shooting Asphalt Content Problems in **Drum-Mix Plants**

<table>
<thead>
<tr>
<th>AC Content High</th>
<th>Incorrect</th>
<th>Incorrect</th>
<th>Incorrect</th>
<th>Investigate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belt scale is reading artificially high due to calibration problem. Rock in pivot point, accumulated fines on belt, wind effect on belt, or drastic ambient temperature variations.</td>
<td></td>
<td></td>
<td></td>
<td>Gradation change in individual material</td>
</tr>
<tr>
<td>Asphalt meter reading artificially low, due to incorrect specific gravity of the asphalt cement, incorrect calibration factor with the liquid asphalt cement being run, temperature swings to the liquid asphalt cement that impact metering accuracy.</td>
<td></td>
<td></td>
<td></td>
<td>Segregation of stockpiled material</td>
</tr>
<tr>
<td>AC% in reclaimed materials higher than entered.</td>
<td></td>
<td></td>
<td></td>
<td>Feed bin out of calibration</td>
</tr>
<tr>
<td>Incorrect moisture setting in automation (to low).</td>
<td></td>
<td></td>
<td></td>
<td>Plugged feed bin</td>
</tr>
<tr>
<td>Ignition oven used for testing &amp; moisture in mix. Mix segregation – also check extracted gradations.</td>
<td>Correct</td>
<td>Correct</td>
<td></td>
<td>Wrong mix recipe</td>
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<tr>
<td>Unstable asphalt flow control device – automation cannot control.</td>
<td></td>
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<td>Gradation change in individual material</td>
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<td>Erratic belt scale signals causing AC flow to vary.</td>
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<td>Temperature fluctuations in metered asphalt cement with ACs that are temperature sensitive.</td>
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<td>Feed bin out of calibration</td>
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<td>Ambient temperature fluctuations affecting belt scale accuracy.</td>
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<td></td>
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<td>Fluctuations in AC content in reclaimed materials.</td>
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<td>Changing material moistures not being entered.</td>
<td></td>
<td></td>
<td></td>
<td>Production rate changes if 100% baghouse dust return</td>
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<td>Ignition oven testing &amp; moisture sometimes in mix. Mix segregation – also check extracted gradations.</td>
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<td>Draft level at time if dust wasted, partial return, or silo return</td>
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<td></td>
<td></td>
<td></td>
<td>Return equip out of calibration if partial return or silo return</td>
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<td></td>
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<td>Inclined dust screw with start &amp; stop</td>
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We cannot solve our problems with the same thinking we used when we created them.

-Albert Einstein