



Materials Specifications & Virginia Test Methods (VTM's) 2014 Fall Conference

November 7, 2014

Rob Crandol, P.E.

Statewide Asphalt Program Manager

Specifications



Overview

- **Need for changes to specifications discussed with VDOT and industry personnel until spring 2014**
- **DRAFT specification changes developed & sent to VDOT and industry stakeholders on July 9, 2014**
- **Final revisions sent to CN division in early September 2014.**

Input received

- 19 comments from industry, 27 from VDOT/VCTIR
- 46 total comments:
 - 20 comments accepted
 - 26 comments did not require action or not accepted
- 9 of 15 comments from VAA accepted & incorporated into the changes made to VDOT specifications

Noteworthy changes

Section 210+

- Move to Multi-Stress Creep Recovery (MSCR) for binders (*edits to Sections 211, 248, 315, and 317*)
 - PG64-22 now PG64S-22
 - PG70-22 now PG64H-22
 - PG76-22 now PG64E-22
- MSCR better predicts binder contribution to mix performance, particularly rutting.

Noteworthy changes

Section 210+

- **MSCR more accurately indicates the rutting performance of the asphalt binder.**
- **A major benefit of the new MSCR test is that it eliminates the need to run tests - such as elastic recovery - designed specifically to indicate polymer modification of asphalt binders.**
- **A single MSCR test can provide information on both performance and formulation of the asphalt binder.**

Noteworthy changes

Section 211

- Adds requirements for lab testing and reporting for permeability of **production** samples.
 - *First lot,*
 - *and every-other-lot thereafter*
 - *No spec requirement – simply reported to District Materials Engineers.*
- At Engineer's discretion, allows use of conventional surface mix in lieu of "Curb Mix" (C)
- Incorporates language from prior Special Provision for allowance of use of Recycled Asphalt Shingles (tabs or tear-offs).

Noteworthy changes

Section 248

- **New language adds/clarifies requirements use of anti-strip and hydrated lime in SMA mixes**

Noteworthy changes

Section 315

- **New language requires use of MTV on interstate routes.**
- **New language requires longitudinal joints on overlaid layers to be offset 6”, and the surface joint to be 6-12” from the centerline.**
- **New language adds a minimum temperature of 200°F when using warm mix.**

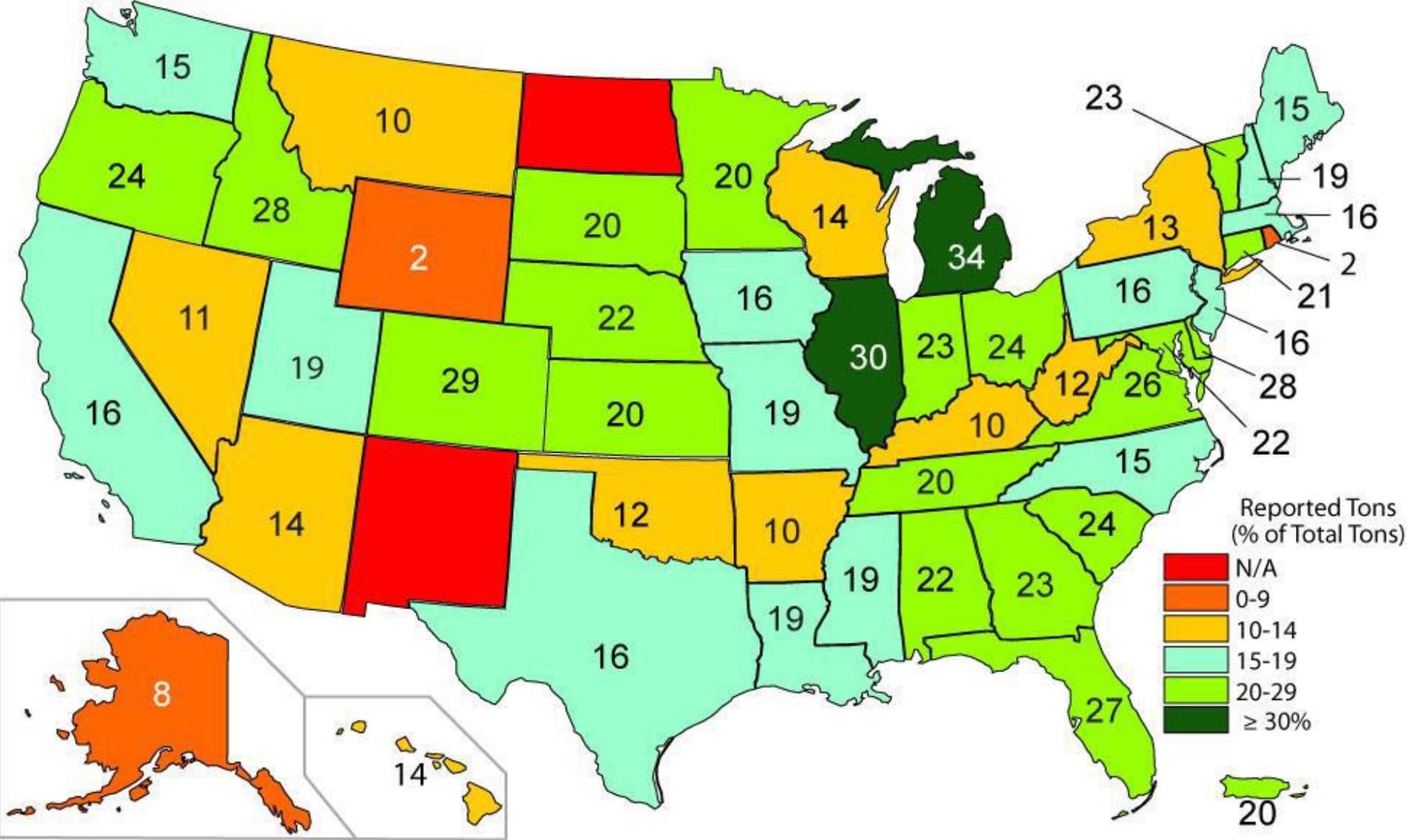
Noteworthy changes

Section 317

- New language adds a minimum temperature of 200°F when using warm mix.
- *Resolve conflict in current Volume 2 – payment for trial sections will be limited to 2.*

Noteworthy changes not made.....

- **Request to consider allowing an increase to 40% RAP**
(currently allowing 30-35%, dependent on mix type)
- **Proposed special provision for scratch/leveling course.**



Source: NAPA - Annual Asphalt Pavement Industry Survey on Recycled Materials and Warm-Mix Asphalt Usage 2009–2012 , Information Series 138

State	Average RAP Percent				State	Average RAP Percent			
	2009	2010	2011	2012		2009	2010	2011	2012
Alabama	19%	25%	21%	22%	Montana	7%	8%	8%	10%
Alaska	5%	3%	13%	8%	Nebraska	NR	NR	30%	22%
Arizona	13%	5%	11%	14%	Nevada	6%	7%	10%	11%
Arkansas	10%	11%	10%	10%	New Hampshire	15%	18%	21%	19%
California	10%	19%	9%	16%	New Jersey	4%	17%	16%	16%
Colorado	19%	19%	24%	29%	New Mexico	NR	NR	18%	NR
Connecticut	15%	17%	13%	21%	New York	10%	11%	16%	13%
Delaware	20%	20%	NR	28%	North Carolina	20%	22%	24%	15%
Dist. of Columbia	NR	NR	NR	NR	North Dakota	NR	NR	11%	NR
Florida	24%	24%	30%	27%	Ohio	23%	24%	23%	24%
Georgia	19%	22%	23%	23%	Oklahoma	12%	13%	18%	12%
Hawaii	10%	9%	11%	14%	Oregon	26%	25%	24%	24%
Idaho	6%	10%	23%	28%	Pennsylvania	13%	13%	16%	16%
Illinois	18%	20%	16%	30%	Puerto Rico	0%	0%	2%	20%
Indiana	23%	24%	26%	23%	Rhode Island	11%	11%	8%	2%
Iowa	12%	17%	14%	15%	South Carolina	17%	20%	22%	24%
Kansas	18%	20%	20%	20%	South Dakota	12%	6%	18%	20%
Kentucky	9%	9%	9%	10%	Tennessee	20%	17%	14%	20%
Louisiana	18%	18%	18%	19%	Texas	11%	10%	13%	16%
Maine	13%	14%	15%	15%	Utah	19%	21%	25%	19%
Maryland	19%	21%	24%	22%	Vermont	21%	20%	17%	23%
Massachusetts	14%	14%	11%	16%	Virginia	21%	28%	26%	26%
Michigan	27%	30%	36%	34%	Washington	18%	16%	16%	15%
Minnesota	16%	19%	22%	20%	West Virginia	10%	11%	11%	12%
Mississippi	16%	17%	18%	19%	Wisconsin	15%	15%	16%	14%
Missouri	12%	12%	19%	19%	Wyoming	6%	5%	1%	2%

Special Provisions



THMACO

- **Select-use special provision**
- **Does not replace current THMACO special provision**
- **Instead offers options for the Engineer:**
 1. **Use current Special Provision, requiring spray-bar pavers**
 2. **Use new Special Provision, giving options for use of spray-bar or conventional paving equipment**

Rideability

- **General intent is for their use on ALL qualifying interstate and primary routes (subject to district decisions)**
- **Potential for default requirement on interstate & primary routes in 2016**
- **Target for each district to specify 2 “incentive only” sections in 2015.**

Other topics:

- **Door hangers/public notice by contractor**
- **PG76-22 price adjustment – proposal for change**

Questions?