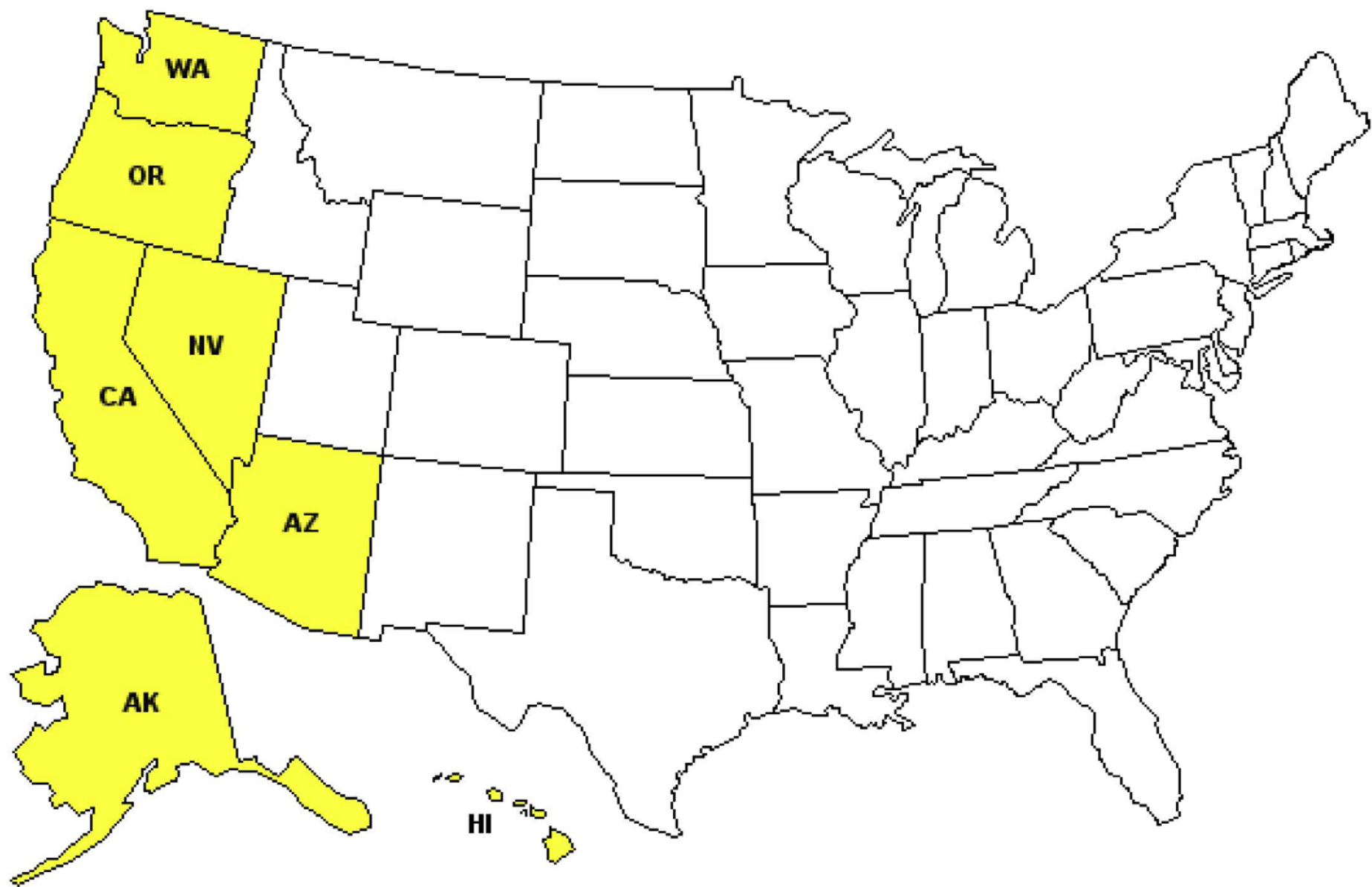


PCCAS and MSCR

AMAP

February 20, 2014



- PG grades in our region range from PG82-16 to PG52-40
- Other grades are ones involving ground tire rubber
- PCCAS just finished a round robin with the aid of the Asphalt Institute regard plus testing and MSCR

PG and other grades

- All binders are neat
- Doing SMA with polymer modified binder
- Tried adding MSCR– lots resistant
- Change spec to phase angle < 77 and report only for MSCR
- Their DSR can't perform MSCR so they must send it out

HAWAII

- They have no plus specifications
- They can run MSCR

**WESTERN FEDERAL LANDS
HIGHWAY DIVISION (WFLHD)**

- They have elastic recovery as plus on some binders
- They can run MSCR

OREGON

- On polymer modified binders there are 2 ductility's, plus toughness and tenacity, and minimum org. DSR 1.3
- One of the polymer modified has a specification for MSCR, which is done at 76 C (grade is 76-22NV)
 - Jnr 3.2 is 2.00 max
 - Creep Recovery 3.2 is 30.0 min
 - Non-recoverable creep Jnr diff % is Report

NEVADA

- They had a ductility on all binders, modified or not
- Elastic recovery is on polymer modified binders
- MSCR is a report on the ground tire binder specifications
- MSCR is done only on the TR grades

CALIFORNIA

- There is a softening point and elastic recovery on the ground tire binder (TR grades)
- Top wearing coarse has a specification on the base (before ground tire) which includes softening point, penetration with 200 g and resilience (D5329)

ARIZONA

- Plus specification on all but two of the binders used in the state
- They can run MSCR and do run they on almost every sample

WASHINGTON

- Northern region no plus tests
- Central region has softening point plus toughness and tenacity
- Southern region has elastic recovery
- Central region is the only one with DSR, other send samples out for testing
- Just finished a round robin with DOT and suppliers, regarding plus tests and MSCR

ALASKA

- Looking at % Recovery versus Elastic Recovery or Toughness and Tenacity, some binders have low % Recovery but pass other tests and are working in the field.
- What temperature do you test at?
- Many agencies has stated that they would just add the MSCR not delete other tests.

CONCERNS

- PCCAS is looking at the MSCR to improve reproducibility
- Only one agency has stated that they would replace their plus tests with MSCR, if it was ready.

SUMMARY



THANK YOU