

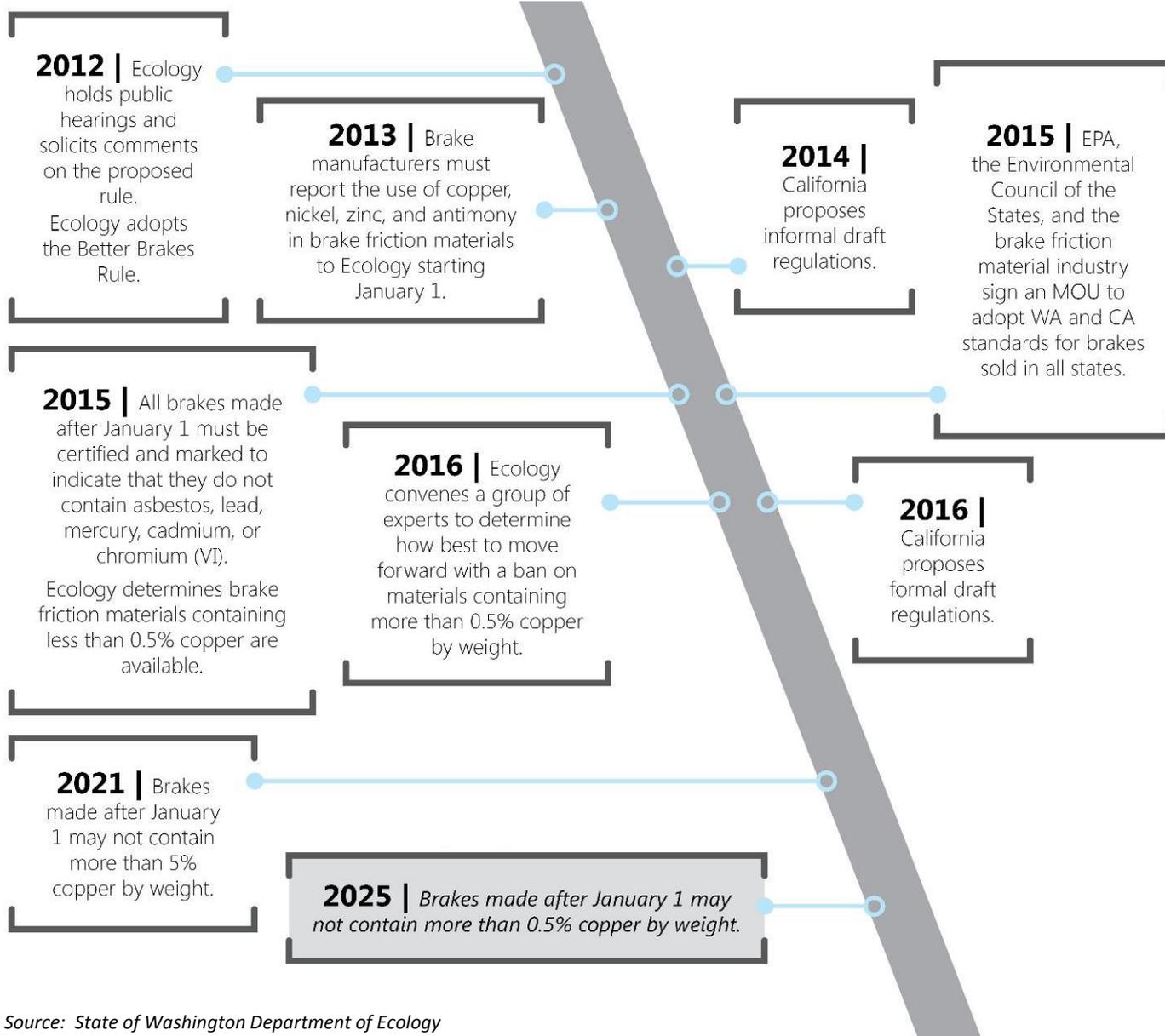


Copper in Brakes

MEMA Background & Update Material

As of April 28, 2016

Timeline Excerpt



Copper in Brakes Compliance

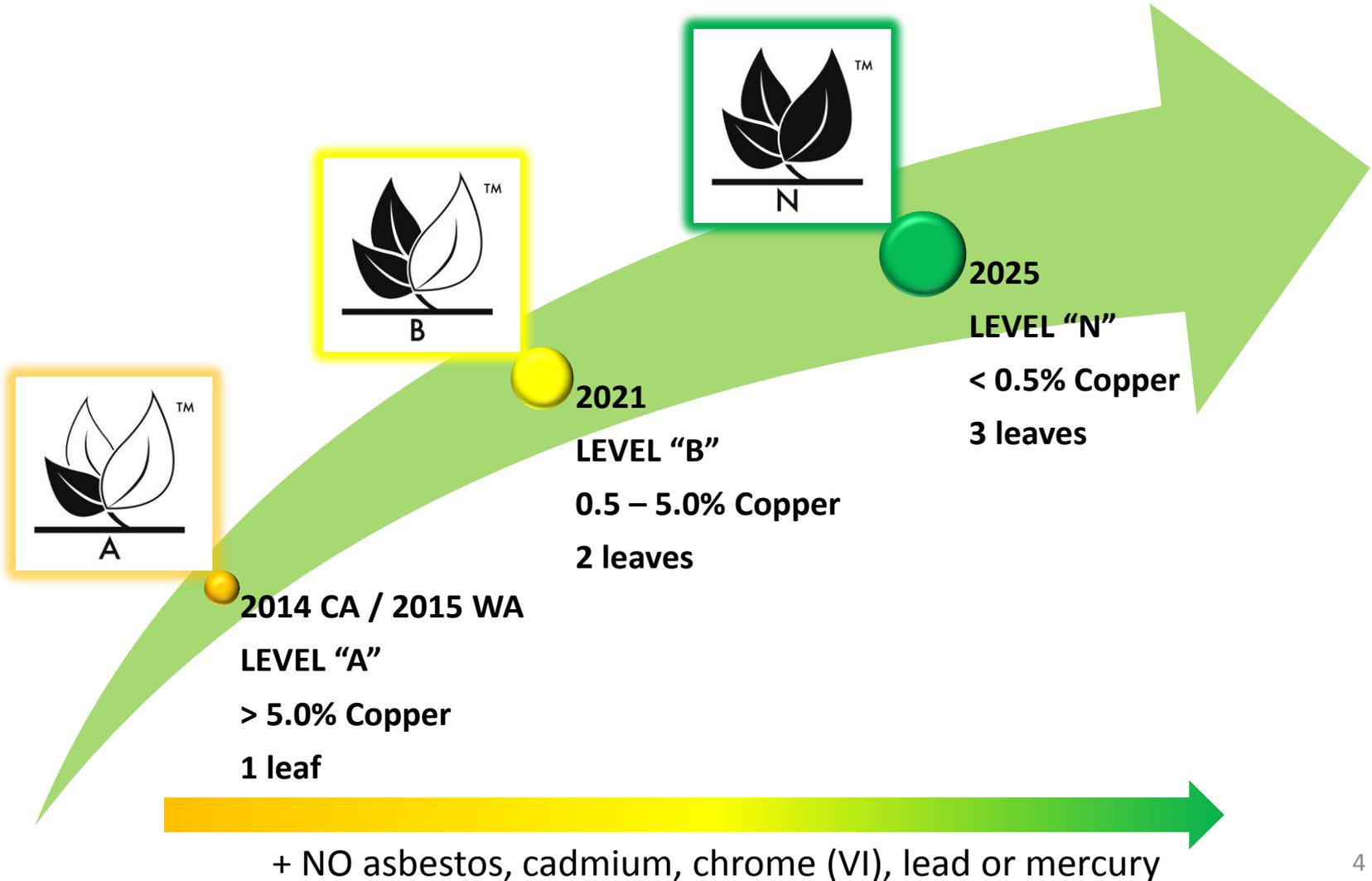
- Constituent testing by an accredited third-party laboratory
- Registration through a third-party registrar
- Labs communicate results directly to a third-party registrar
- Complying friction materials' environmental code information posted on a public website
- Brake friction materials be marked with an environmental compliance level on the pad's Edge Code*
 - "A" = Compliant with other constituents (Asbestiform, Cr(VI), Pb, Hg, Cd)
 - "B" = Compliant with Cu 5.00 wt%
 - "N" = Compliant with Cu 0.50 wt%
 - "WX" or "X" = exempted (WA State)

	 A	 B	 N
Material			
Cu	No limit	5.00 wt%	0.50 wt%
Asbestiform, Cr(VI), Pb, Hg	0.10 wt%	0.10 wt%	0.10 wt%
Cd	0.01 wt%	0.01 wt%	0.01 wt%

* Per SAE J866 Friction Coefficient Identification and Environmental Marking System for Brake Linings

LeafMark™

Industry-created certification mark for packaging



Copper in Brakes Update

Jan. 2015 – Under the leadership of MEMA and BMC, a government-industry “Copper-Free Brakes Initiative” **Memorandum of Understanding** (MOU) was developed and signed by **10 signatories** representing **brake pad manufacturers**, aftermarket, vehicle manufacturers, state environmental agencies and the **U.S. EPA**

California DTSC

Brake Friction Material Law Proposed Regulation

June 2014 – Informal Proposed Rule

- MEMA/BMC submitted comments

April 2016 – Formal Proposed Rule

- Comments are due May 23
- DTSC Public Hearing May 27 (MEMA testifying)

MEMA – BMC Action

- MEMA staff working with AASA’s Brake Manufacturers Council to develop comments
- Concerned with alignment and harmonization of certain aspects with WA and with elements of the proposal that require clarification (e.g. test results and registrars)

Washington Ecology

“Better Brakes” Regulation Implementation

Dec. 2015 – Alternatives Decision*

- Affirmative decision that alternatives to “may be” available

Q.2 2016 – WA Brake Friction Material Advisory Committee (BFMAC)*

- Multiple stakeholder participants
- Purpose is to propose recommendations to WA, including any appropriate exemptions
- Apr/May – 2 conference calls
- June 28 – Workshop scheduled in WA

Mid-2016/Mid-2017

- WA will conduct its Product Enforcement Plan

Resource Links

Copper Free Brakes Industry Education

<http://www.copperfreebrakes.org>



U.S. EPA Copper Free Brake Initiative

<https://www.epa.gov/npdes/copper-free-brake-initiative>

Memorandum of Understanding

https://www.epa.gov/sites/production/files/2015-11/documents/copper_brakepads_mou.pdf

State of Washington – Ecology

<http://www.ecy.wa.gov/programs/hwtr/betterbrakes.html>

State of California – DTSC

<http://www.dtsc.ca.gov/SCP/BrakePads.cfm>