Industry Forum:
The Future of Low Leaded Plumbing Products in Canada

Moderator: Ralph Suppa, CIPH President & General Manager
Speakers: Kevin Ernst (OS & B) (Plumbing Industry Advisory Council)
Joseph Rogers (Ontario Ministry of Municipal Affairs & Housing)
Thomas Husebye (Dahl Brothers Canada)
Al Hook (Wolseley Canada)

Goal

The goal of this unique forum is to offer key insights and clarity into how your business and our industry will be affected by the upcoming changes to the low lead plumbing requirements in Canada.

Background

California was the first USA State to begin preliminary discussions in 2005 to:

- Reduce the lead content in plumbing products
- Implement regulations in 2008 and;
- Enforce low leaded plumbing products in 2010.

Background

U.S. Safe Drinking Water Act - definition of “lead free”: The new regulation significantly reduces the current allowable level of lead content which complies with the industry standard (NSF6l) or 8% dependent on product down to no more than a weighted average lead content of 0.25% on wetted surfaces when evaluated for pipes, valves, pipe fittings and plumbing fittings, anticipated to convey or dispense water for human consumption through drinking or cooking.

The Canadian Approach

- There are no regulations relating to lead content in plumbing products in Canada.

- Regulators, legislators and Health Canada plan to approach the issue through the national system of plumbing codes that can be adopted and enforced provincially/territorially through one recognized network of plumbing and health inspectors.

Low Lead Adoption (by Province)

	BC	AB	SK	MB	ON	QC	NB	NS	PEI	NFLD
ADOPTING OF THE 2013 INTERIM CHANGES (once published)	WITHIN 6 MONTHS	ADOPTED AS PUBLISHED BUT MATERIAL CHANGES WILL BE CONSIDERED	2005 NPC currently TBC on future actions	WITHIN 6 MONTHS	BY MINISTER'S RULING	WITHIN 3 MONTHS	WITHIN 6 MONTHS	CURRENT AS OF JAN 1 2014	IN PROCESS OF UPDATING TO THE 2010 EDITION OF THE NPC. LOOKING INTO THE 2013 INTERIM CHANGES	WITHIN 6 MONTHS
					link to ruling					
ANTICIPATED ENFORCEMENT DATES (see note)	Jun-14	Jan-14		Jun-14	Jan-14	Jun-14	Jun-14	Jan-14		Jun-14
					advice					
GRANDFATHERING OF PROJECTS PRIOR TO ADOPTION	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

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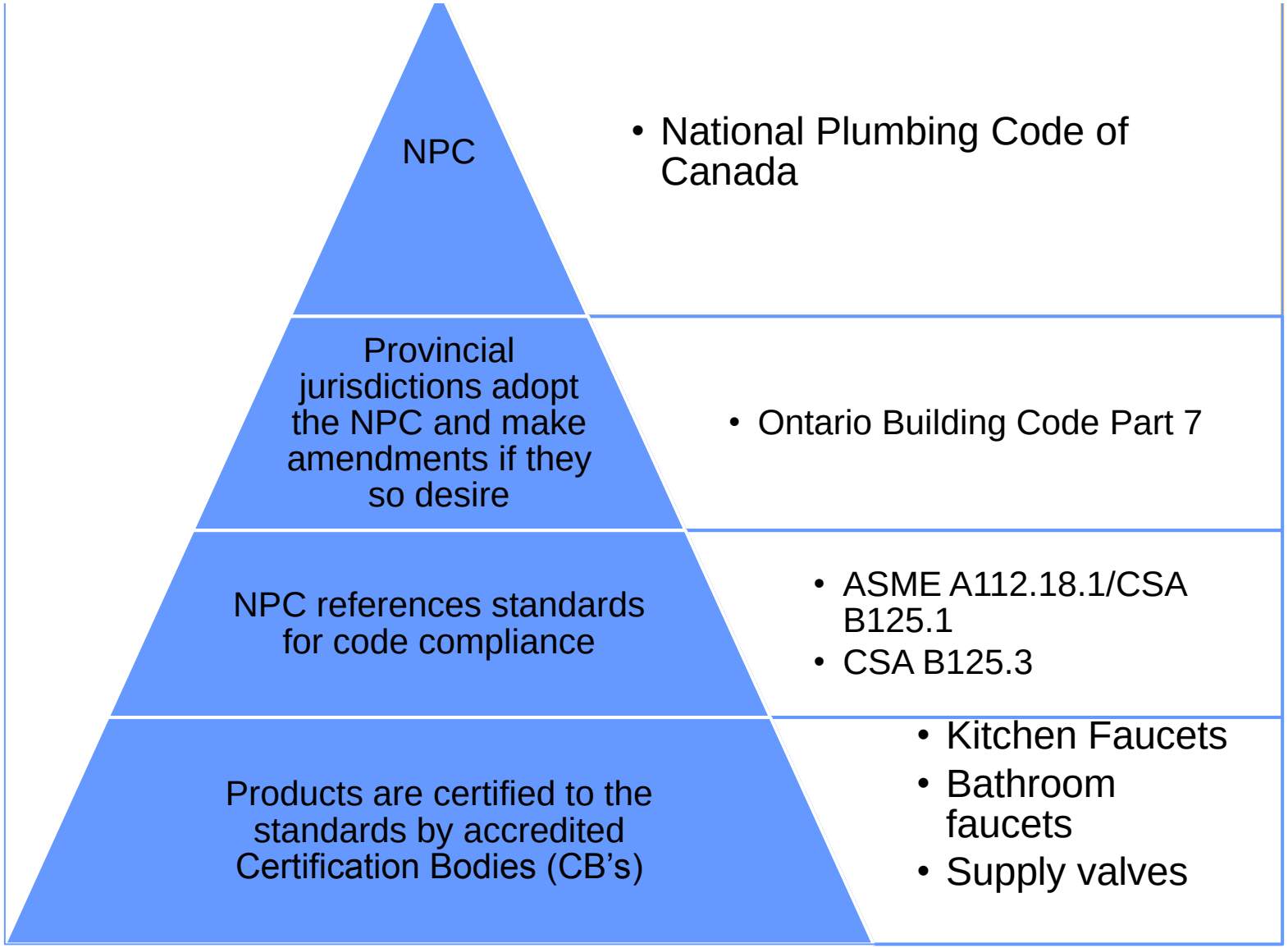
Codes and Standards- How they Work



Examples of Standards referenced in the NPC as it relates to Lead:

- ASME A112.1/CSA B125.1 Plumbing Supply Fittings.
- CSA B125.3 Plumbing Fittings.
- CSA B64 Backflow Prevention.
- CSA B137 Thermoplastic pressure piping (& their fittings).

ASME A112.1/CSA B125.1- 2012

4.9 Toxicity and lead content

4.9.1

Fittings covered by this Standard shall comply with the applicable requirements of NSF/ANSI 61.

4.9.2

Solders and fluxes in contact with potable water shall not exceed, by mass, 0.2% lead content. Metal alloys in contact with potable water shall not exceed 8% lead content.

4.9.3

Fittings intended to convey or dispense water for human consumption through drinking or cooking shall not contain a weighted average lead content in excess of 0.25% when evaluated in accordance with the test method specified in NSF/ANSI 372.

ASME A112.1/CSA B125.1

SCOPE – AFFECTED PRODUCT IN RED

(a) automatic compensating valves for individual wall-mounted showering systems;
(b) bath and shower supply fittings;
(c) bidet supply fittings;
(d) clothes washer supply fittings;
(e) drinking fountain supply fittings;
(f) humidifier supply stops;
(g) kitchen, sink, and lavatory supply fittings;
(h) laundry tub supply fittings;
(i) lawn and sediment faucets;
(j) metering and self-closing supply fittings;
(k) shower heads, hand-held showers, and body sprays; and

(l) supply stops.

CSA B125.3 - 2012

4.15 Toxicity and lead content

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CSA B125.3

SCOPE – AFFECTED PRODUCT IN RED

(a) anti-siphon fill valves;

(b) automatic compensating valves other than those for individual wall-mounted showering systems;

(c) flushometer valves and solenoid valves;

(d) supply line stops;

(e) temperature-actuated in-line mixing valves;

(f) thermal expansion relief valves; and

(g) trap primers.

CSA B64/356: Backflow and Pressure Reducing Valves

- B64 TC met week of September 16.
- A Task Force was opened by the TC and will be led by France Lemieux (Health Canada).
- Over the next 6 months the Task Force will develop a change proposal to be voted upon by the TC. Upon approval it would then be added to the standard as an amendment.
- If all goes well, the amendment would be issued the end of 2014.
- NPC adoption hopefully for 2015.

CSA B137

- TC plans to issue an amendment.
- Estimate summer 2014 for the publication.
- NPC adoption hopefully for 2015.

Certification Compliance Effective Date

- All manufacturers holding certification to ASME A112.18.1/CSA B125.1 or CSA B125.3 must be recertified by their Certification Body (CB) by December 31, 2013.

- This means that on January 1, 2014, manufacturers will no longer be able to produce CERTIFIED products that do not meet the new lead requirements in the two standards.

Low Lead Adoption (by Province)

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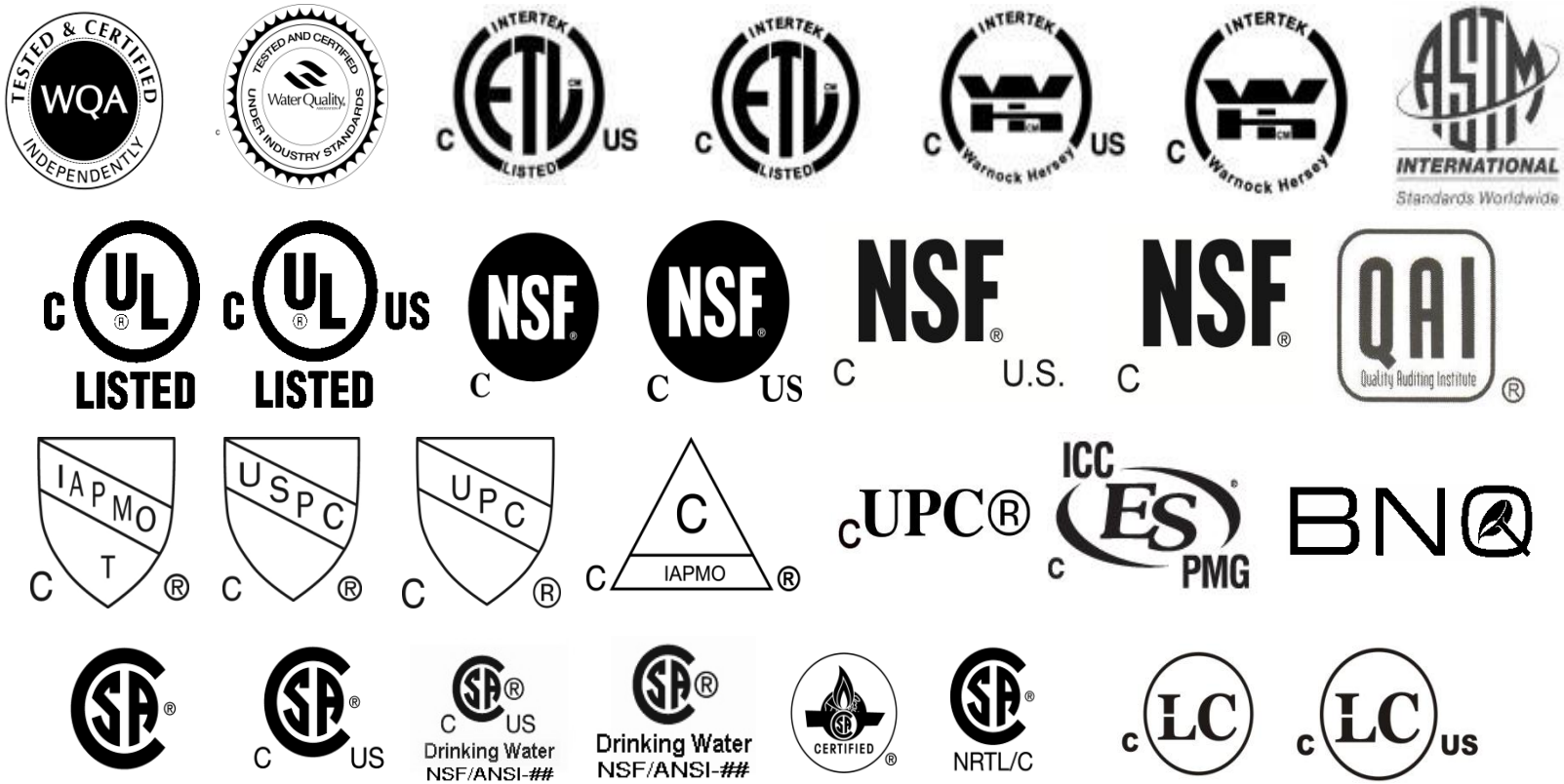
					advice					
GRANDFATHERING OF PROJECTS PRIOR TO ADOPTION	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

Low Lead Markings

Certification Body	Certification Mark(s)	Remarks & Required Identifier Text
CSA Group	LLC; Low Lead Content; NSF/ANSI 372; Drinking Water NSF/ANSI 61-G	(1) Based on the intended product market, the marks may be accompanied by a "C" & "US" or just a "US". (2) Text indicating certification to at least one of the lead-free certification identifiers (listed in blue below table) must accompany the marks.
ICC Evaluation Services (ICC-ES), LLC	ICC ES PMG LOW LEAD	Text indicating certification to a lead-free certification identifier (listed in blue below table) may be included next to the mark, but is not required.
International Association of Plumbing and Mechanical Officials Research & Testing (IAPMO R&T)	UPC; IAPMO R&T; UPC®	(1) Based on the intended product market, the UPC shield and logo marks may be accompanied by a "C". (2) Text indicating certification to at least one of the lead-free certification identifiers (listed in blue below table) or the term "Low-Lead" must accompany the marks.
Intertek Testing Services NA, Inc.	Intertek; Intertek	(1) Marks can be black or reversed in white. (2) Based on the intended product market, the marks may be accompanied by a "C"or a "US" or both. (3) Text indicating certification to at least one of the lead-free certification identifiers (listed in blue below table) must accompany the marks.
NSF International (NSF)	NSF; NSF-61-G; NSF-372; NSF pw-G	(1) Marks can be blue, white, or black. (2) Based on the intended product market, the marks may be accompanied by a "C" & "US" or just a "C". (3) Text indicating certification to an NSF/ANSI Standard (listed in blue below table) must accompany circular marks. (4) Standard 61 circular and text marks may alternately include "61/9-G".
Truesdail Laboratories, LLC		Text indicating certification to at least one of the lead-free certification identifiers (listed in blue below table) must accompany the mark.
Underwriters Laboratories (UL), LLC	CERTIFIED HEALTH EFFECTS US-CA File No.; UL; UND. LAB. CLASSIFIED; UND. LAB. CLFD	(1) Based on the intended product market, the marks may be accompanied by a "C", "CA", "US", "C" & US", or "CA" & "US". (2) Text indicating certification to an NSF/ANSI Standard (listed in blue below table) must accompany all the marks. (3) The File No. is a unique identification for a product used to search the UL online certification directory.
Water Quality Association (WQA)	WQA; NSF/ANSI 372 by WQA	(1) The marks can be either gold or black and white. (2) Based on the intended product market, the Marks may be accompanied by a "C" & "USA" or just a "C". (3) Text indicating certification to an NSF/ANSI Standard (listed in blue below the table) must accompany the marks.

Markings


TESTED & CERTIFIED
WQA
INDEPENDENTLY
TESTED AND CERTIFIED
WaterQuality
UNDER INDUSTRY STANDARDS
INTERTEK
ETL
LISTED
US
INTERTEK
ETL
LISTED
INTERTEK
Warnock Hersey
US
INTERTEK
Warnock Hersey
ASTM
INTERNATIONAL
Standards Worldwide
UL
LISTED
UL
LISTED
US
NSF
NSF
US
NSF
U.S.
NSF
QAI
Quality Auditing Institute
IAPMO
T
USPC
UPC
C
IAPMO
cUPC®
ICC
ES
PMG
BNQ
Drinking Water
NSF/ANSI-##
Drinking Water
NSF/ANSI-##
CERTIFIED
NRTL/C
LC
LC
US

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Lead Free Requirements

CIPH October 24, 2013

Ontario Building Code

The Building Code does not regulate the following:

- Who does the work, or
- Products that are sold in the marketplace

The Building Code regulates construction and specifies standards that products are to comply with.

Minister's Ruling

What it means

- Section 29(1)(b) of the Building Code Act
- The Minister may, subject to such conditions as the Minister in his or her discretion considers appropriate, make rulings, adopting an amendment to a code, formula, standard, guideline, protocol or procedure that has been adopted by reference in the building code.
- Updating the edition of a standard falls within what can be done by Minister's Ruling
- Standards referenced under 2012 Building Code
  - ASME A112.18.1-2005 / CAN/CSA-B125.1-05
  - ASME A112.18.3-2005 / CAN/CSA-B125.3-05
- Standards referenced under the Minister's Ruling
  - ASME A112.18.1-2012 / CAN/CSA-B125.1-12
  - ASME A112.18.3-2012 / CAN/CSA-B125.3-12

The 2006 & 2012 Building Code

What do I have to install and when?

- The 2012 Building Code takes effect on Jan. 1, 2014.
- The Minister's Ruling takes effect on Jan. 1, 2014.
- Any building permit applied for and issued on or after Jan. 1, 2014, construction is to comply with the 2012 Building Code including the Minister's Ruling.

Existing Projects

Any project that has a permit before Jan. 1, 2014 is governed under the 2006 Building Code therefore applicable standard is **ASME A112.18.1-2005 / CAN/CSA-B125.1-05** or **ASME A112.18.3-2005 / CAN/CSA-B125.3-05**

Transition

Rules for transition

- Article 4.1.1.1. of Division C of the Building Code.

4.1.1.1. Transition Rule

(1) Subject to Sentence (2), Ontario Regulation 350/06 (Building Code), as it read on December 31, 2013 is deemed to continue in force with respect to *construction* for which a permit has been applied for before January 1, 2014.

(2) Sentence (1) does not apply unless the *construction* is commenced within six months after the permit is issued.

Transition (cont'd)

Any project that has a permit applied for before Jan. 1, 2014 is governed under the 2006 Building Code provided the construction is started within 6 months of the permit being issued.

Effects

- Permit application date: December 16, 2013.
- Permit issue date: January 15, 2014.
- Construction start date: Prior to July 15, 2014.
- 2006 Building Code is applicable to that project.

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A Manufacturer's Viewpoint

- Many manufacturers began offering lead-free compliant products on Jan. 4, 2010, to the California market.
- California announced passage of the AB 1953 law in September 2008 and compliant products had to be ready for sale to Californian distributors by the end of 2009.
- Having been given only one year to comply with AB 1953, **manufacturers selling into California had to overcome significant challenges in a very short time period**.

A Manufacturer's Viewpoint

Significant investments were made in:

- ✓ Alloy **research**, testing and selection.
- ✓ New **machining** challenges incl. increased machining times, tooling wear, etc.
- ✓ New **certifications**.
- ✓ Dual **inventories** of compliant and non-compliant goods.
- ✓ Setting up and re-costing **new products**.
- ✓ Developing a **distinctive marking** in the absence of a standardized one.
- ✓ Producing separate **price lists, printed matter and sales aids**.

A Manufacturer's Viewpoint

Situation in Canada is different

- U.S. law is very clear that nobody can sell, distribute or install non-compliant product as of Jan. 4, 2014.
- **Code approach in Canada has created transitional ambiguity**.
- **Manufacturers must stop production** of regular brass products for potable plumbing applications certified under CSA standards B125.1 and B125.3 by **Dec. 31, 2013**.
- **Existing inventories of regular brass products** that are on hand may continue to be sold & installed after Dec. 31, 2013, dependent on effective dates of provincial codes.

A Manufacturer's Viewpoint

Challenges for manufacturers:

- **What do our customers intend to buy and when,** especially in consideration for our manufacturing lead times and their expected delivery lead times?
- **Dual inventories** – but what is the right mix?
- Staggered timing of **provincial adoption**.
- **Should a manufacturer ramp up extra production** before Dec. 31, 2013, to serve the last jurisdictions to adopt the new standard into the code?
- **Varying inventory transitional strategies** amongst different customers.
- **Cannot accept returns** of non-compliant (regular brass) products for potable water applications – there's nowhere to re-sell them.

A Manufacturer's Viewpoint

- Experience in California shows that issues such as this have a tendency to garner high public profile due to the **political & public sensitivity** of lead toxicity.
- **Public awareness** is a factor to consider.
- **What manufacturers need to know without delay** are the actual dates by which their customers need to take delivery of lead-free product.

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Speaker: Al Hook (Wolseley Canada)

Low Lead:
A Wholesaler's Perspective

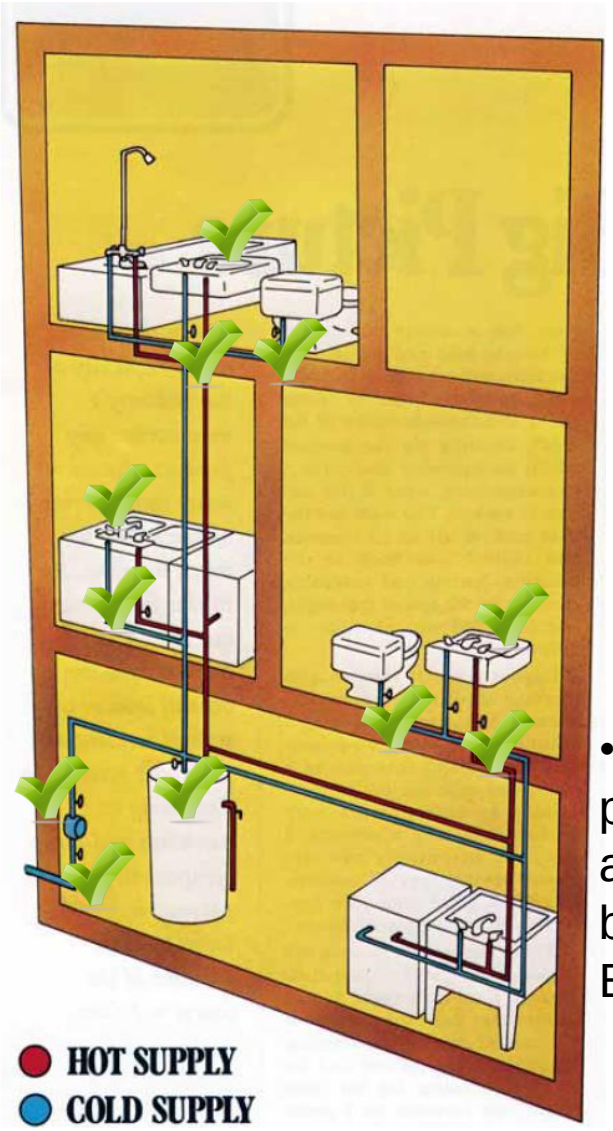
Al Hook

October 24, 2013

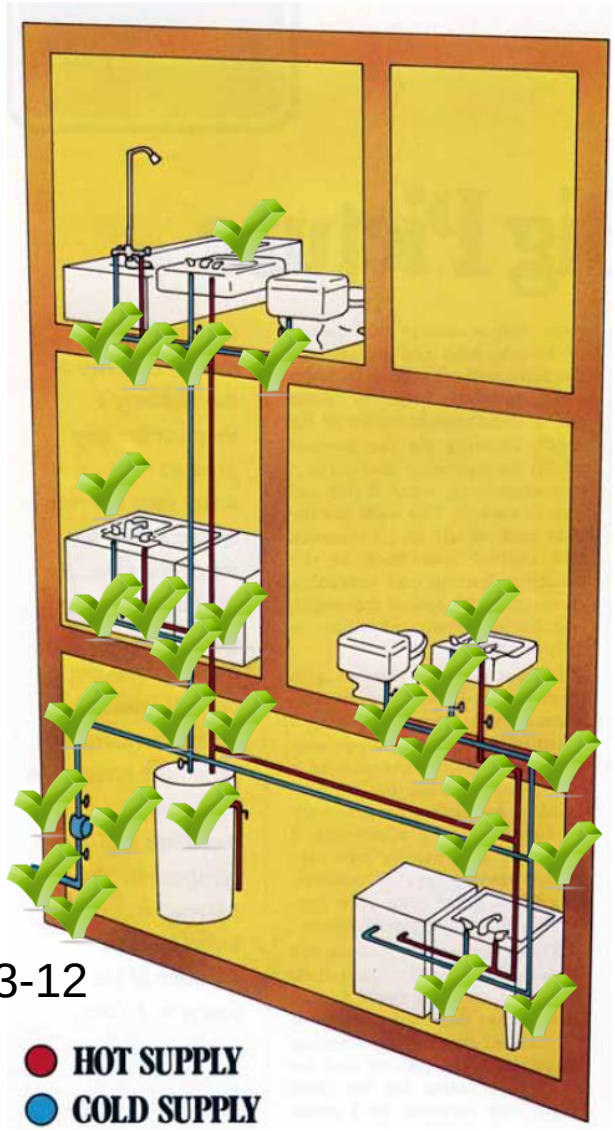
CANADIAN INSTITUTE OF PLUMBING & HEATING
L'INSTITUT CANADIEN DE PLOMBERIE ET DE CHAUFFAGE

Products Affected

Canada



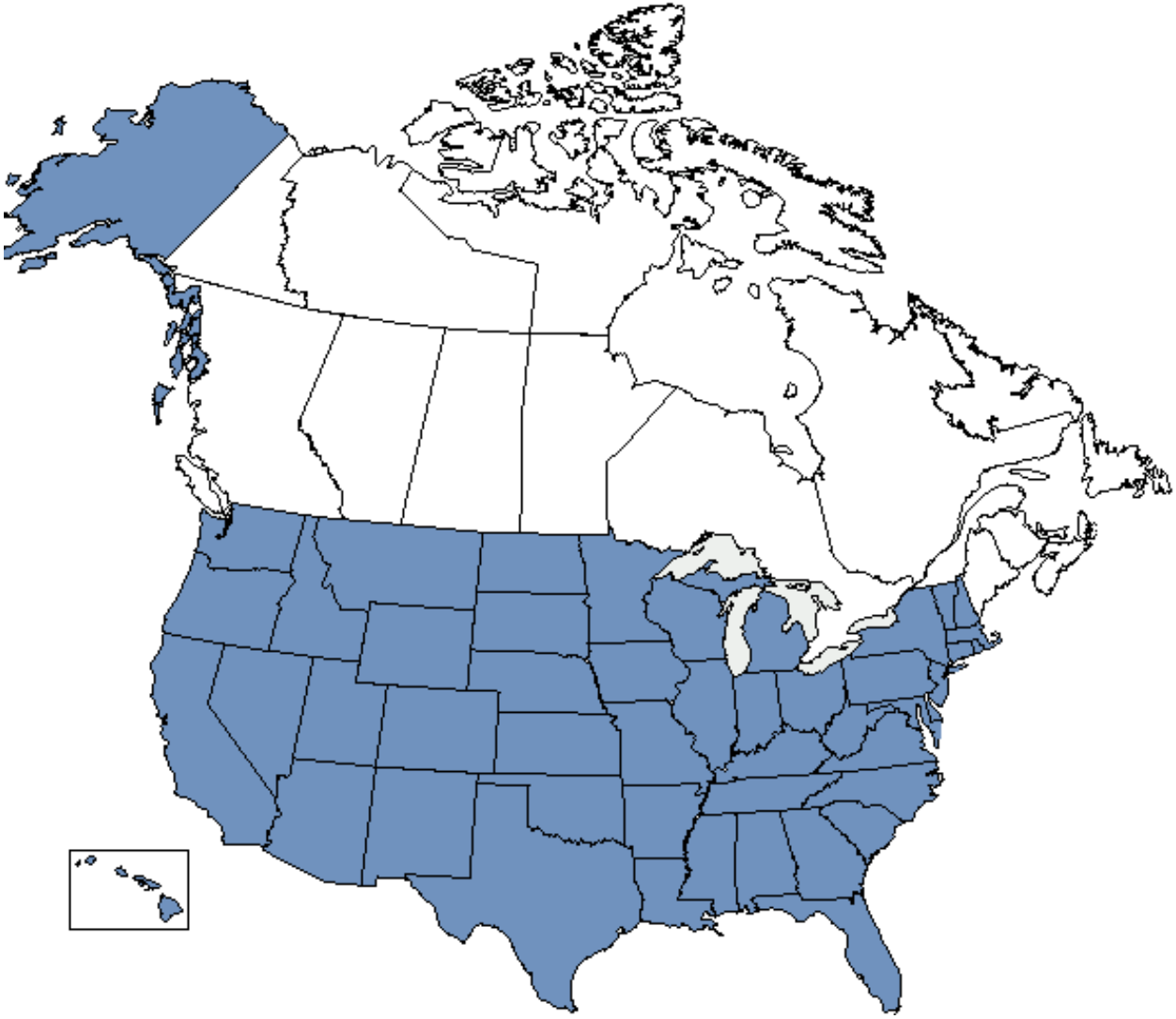
USA



- Only products affected by CSA B125.1/.3-12

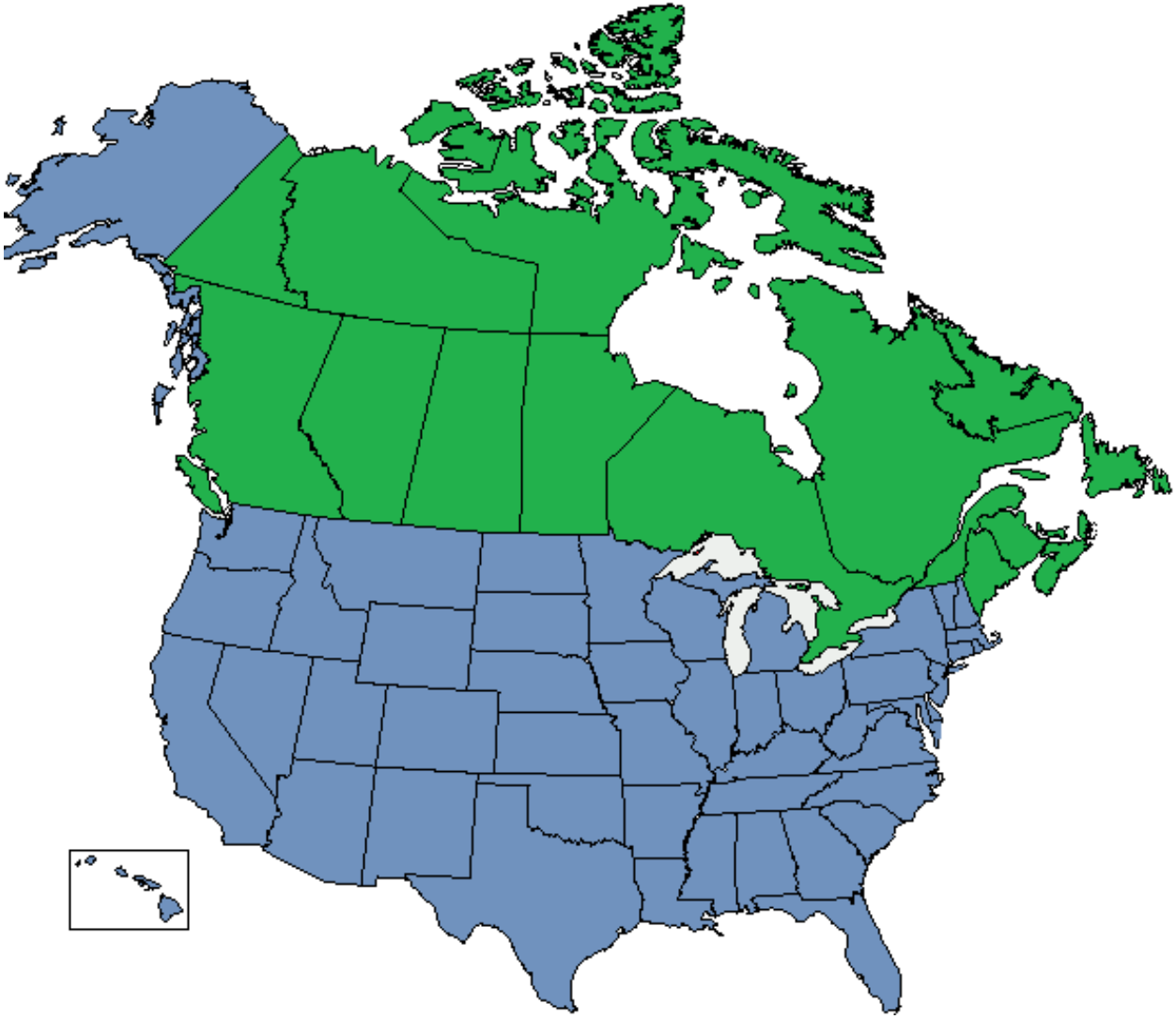
- SDWA Section 1417(a)(3) prohibits the introduction into commerce or use of “any pipe, or any pipe or plumbing fitting or fixture” that is not lead free.

Regions Affected & Implementation Dates



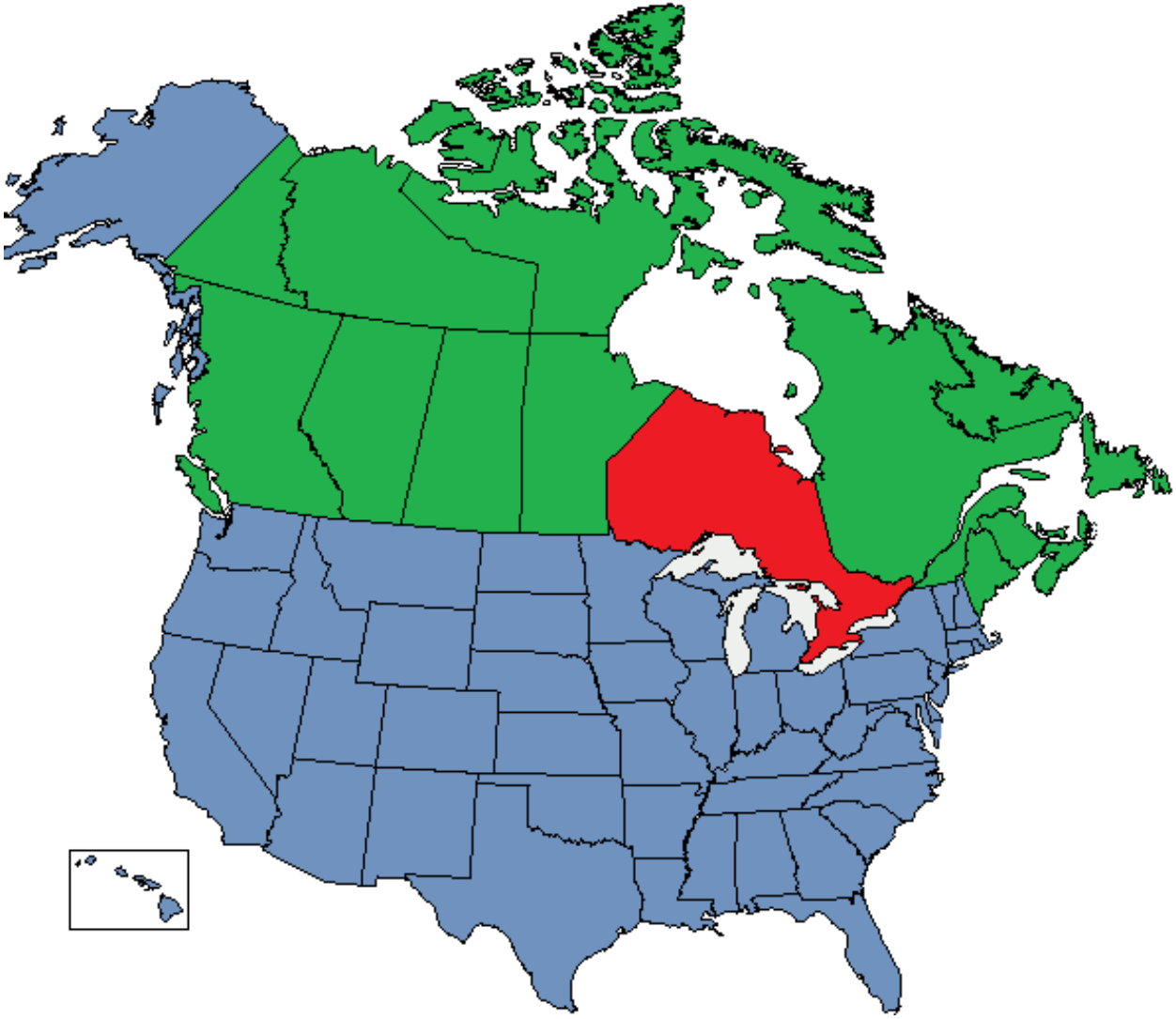
All sales and installations in the USA must comply to the ***Reduction of Lead in Drinking Water Act*** by ***Jan. 4, 2014***

Regions Affected & Implementation Dates



Manufacturers need to meet ***CSA B125.1/.3-12*** by ***January 1, 2014***

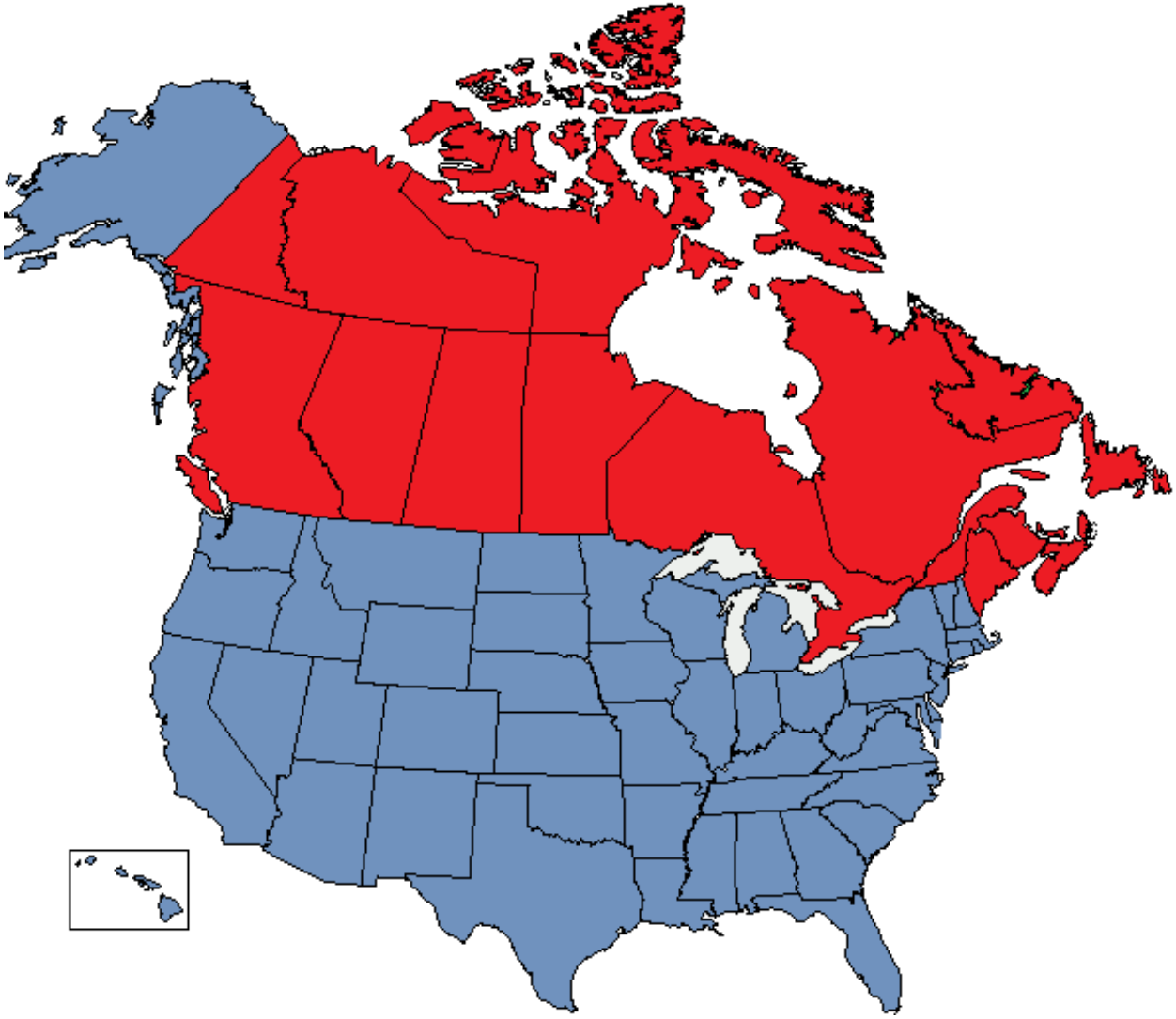
Regions Affected & Implementation Dates



Installations in Ontario must comply with ***CSA B125.1/.3-12*** by ***Jan. 1, 2014***

* Grandfather clause applies to existing projects

Regions Affected & Implementation Dates



Timing of implementation in all other Canadian jurisdictions TBD, dependent on revision to NPC

The Supply Chain

CSA B125.1/.3-12	Manufacturers	Wholesalers	Contractors	Provinces/ Municipalities
Updated standards become ***"The Law"*** when referenced in Plumbing Codes	Obligated to produce according to newly defined standards	***Managing The Transition***	Obligated to follow local plumbing codes	Once plumbing codes are adopted by provinces, they become ***"The Enforcer"***

The Supply Chain - Wholesalers

Wholesalers

Managing
The Transition

- Take the appropriate actions to protect our customer – The Contractor
- Communication
    - Internally
    - Customers
- Smooth transition from standard to low-lead products
- Clear identification on paperwork of compliant and non-compliant products
- Product change schedule

Issues Facing the Industry

- Additional Costs
  - Product itself
  - Non-saleable, non-compliant product
- Import Products
  - Products not clearly identified
  - Time delay due to longer supply chain
- Timing the Transition
  - Trying not to strand inventory on branch shelves
- Identification of Compliant Product
  - Once a product is installed, if not clearly identifiable as compliant, contractors will contact wholesalers for proof of purchase and support if being questioned by Inspectors
- Industry Responsibility
  - Do we take the high road, or exploit every loophole?

THANK YOU


CIPH

PRELIMINARY SURVEY RESULTS: Are you ready for the Implementation & Enforcement of Low-lead Requirements for Potable Plumbing Products in Canada?

Given the anticipated provincial low-lead implementation and enforcement dates, will your company be ready to comply?

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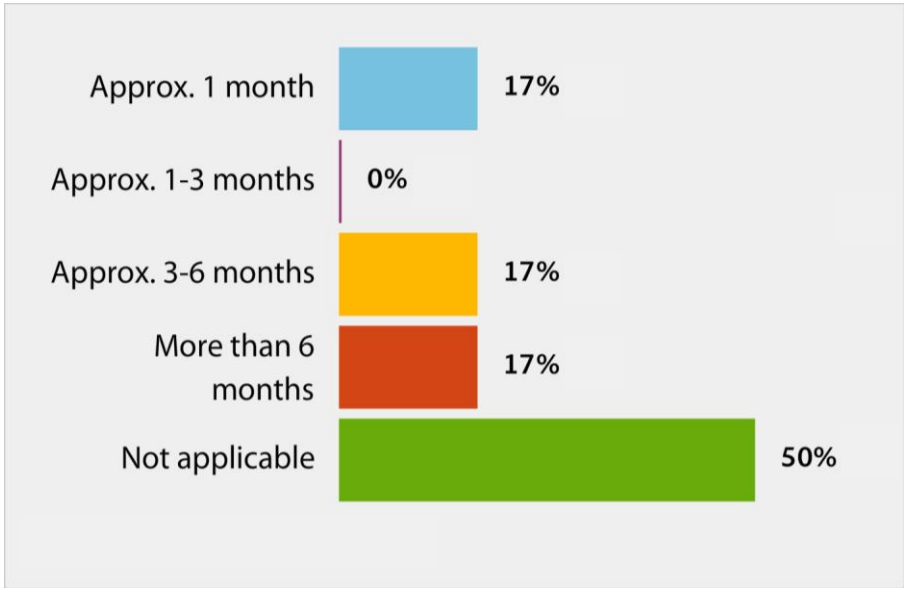
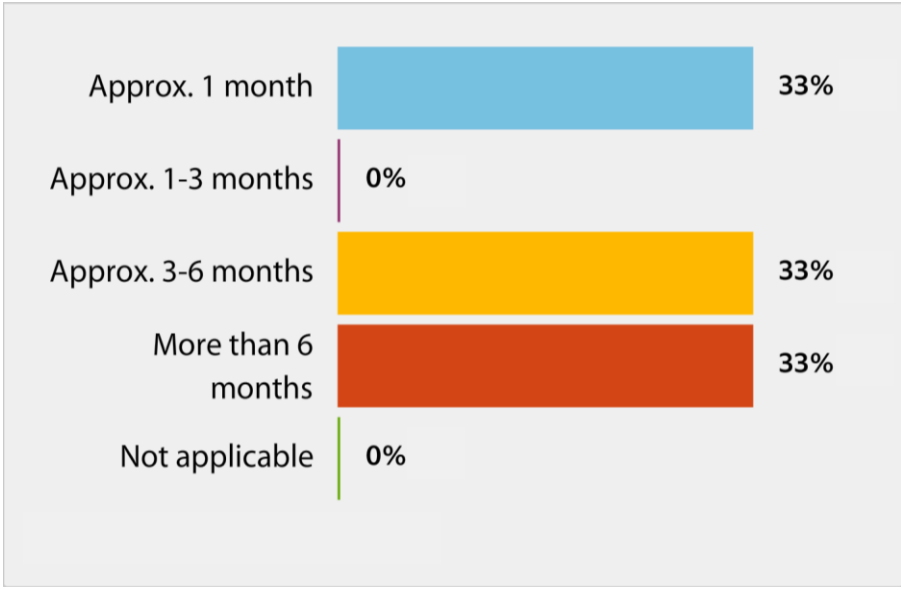
GRANDFATHERING OF PROJECTS PRIOR TO ADOPTION	YES	YES	YES	YES	YES	YES	YES	YES	YES	YES

CIPH PULSE KEY INDUSTRY POLLING DATA

How many months of non-compliant inventory do you believe you are currently stocking? (All categories)



BC



Alberta

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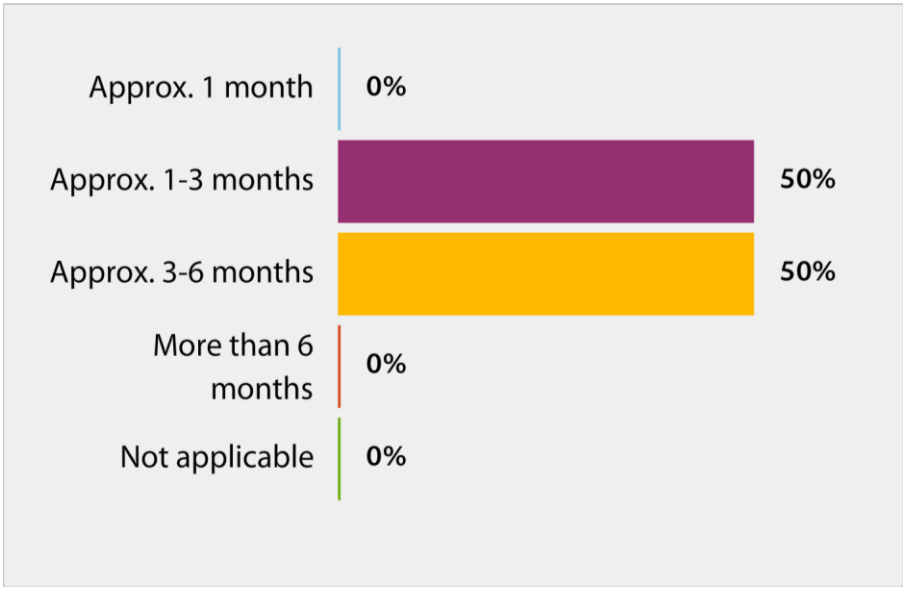
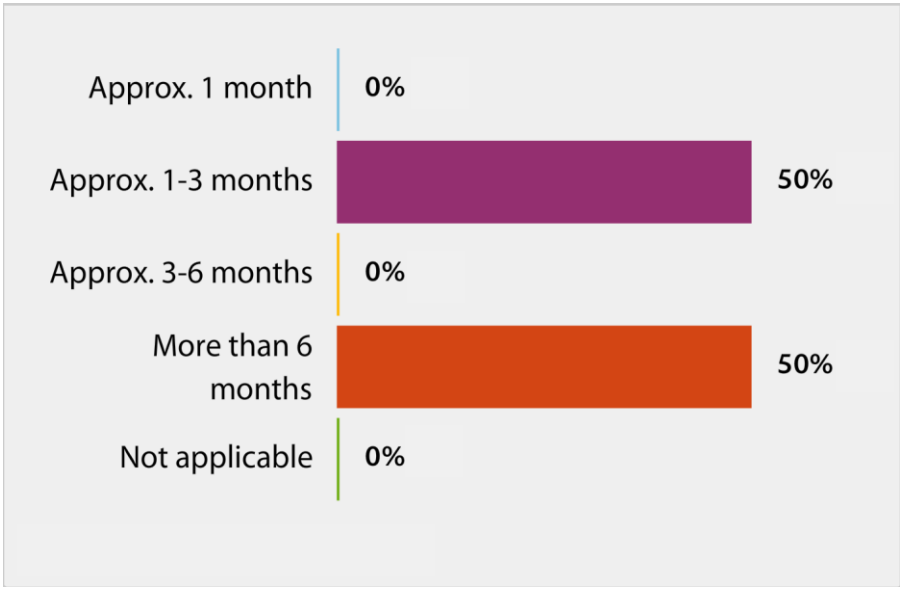


Saskatchewan



Manitoba

CIPH KEY INDUSTRY POLLING DATA PULSE

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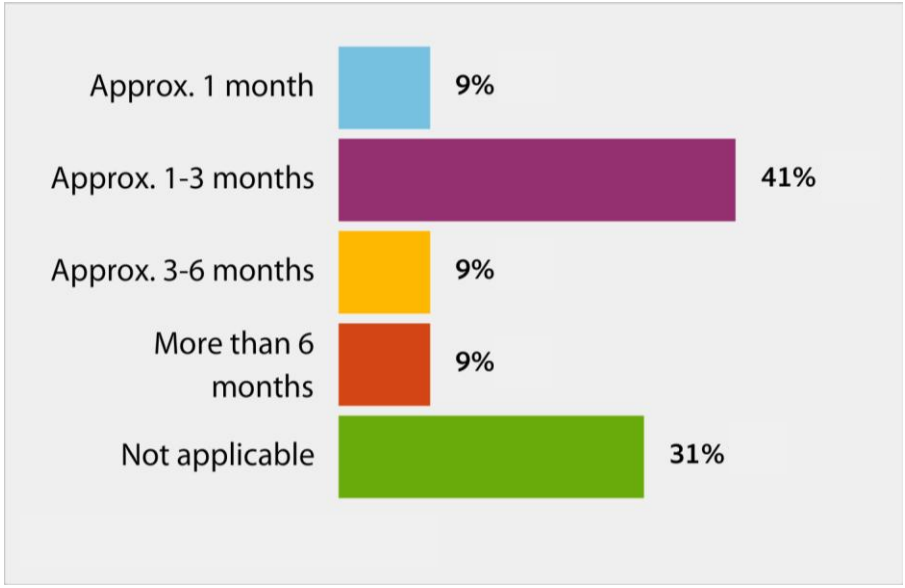
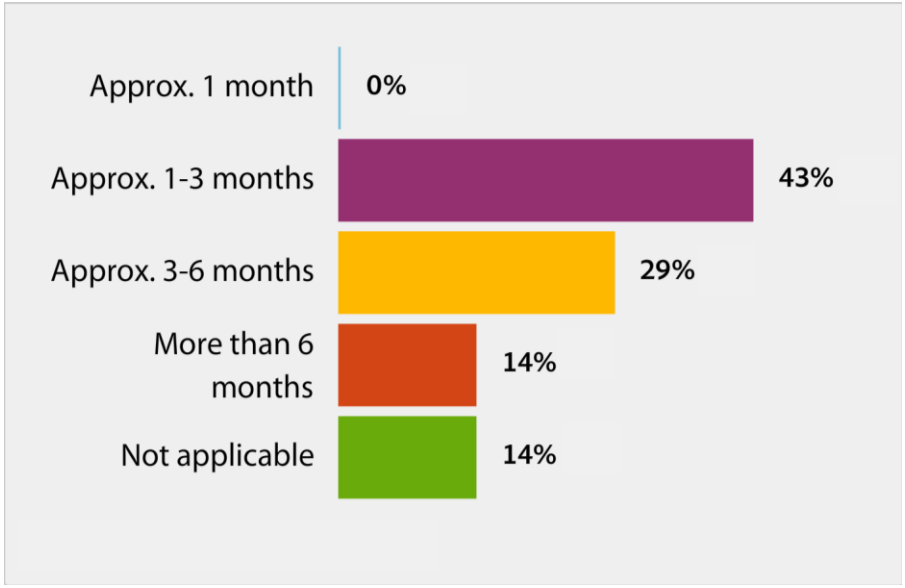


Ontario



Quebec

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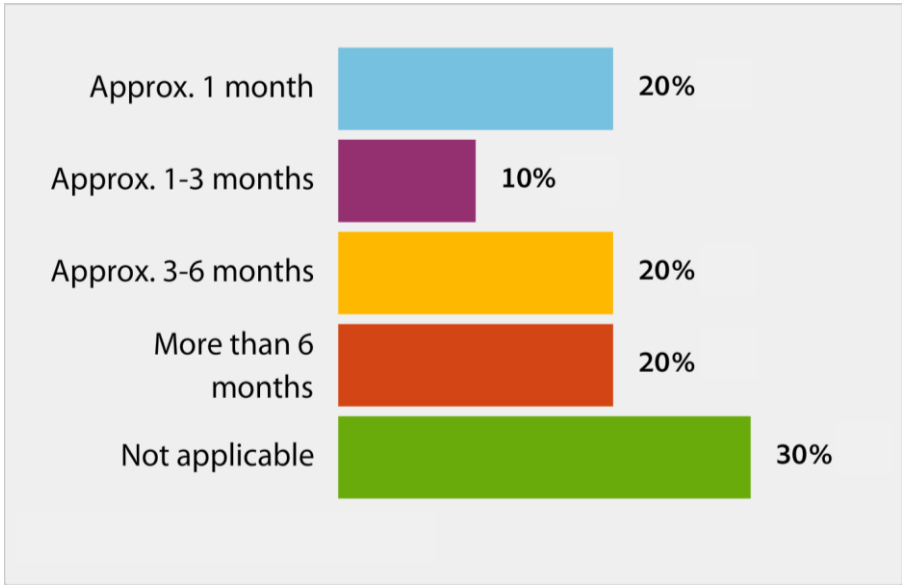
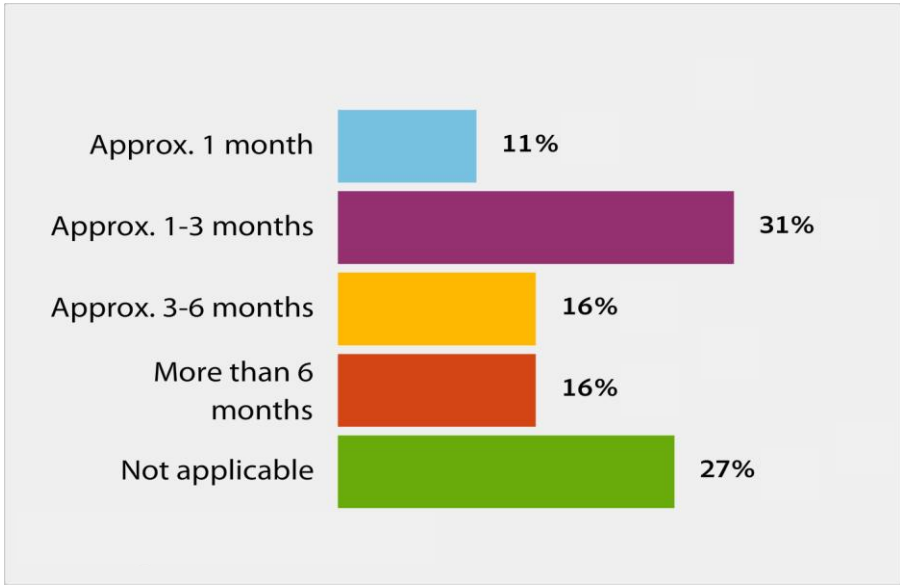


Atlantic (PEI, NS, NB) **& Newfoundland**

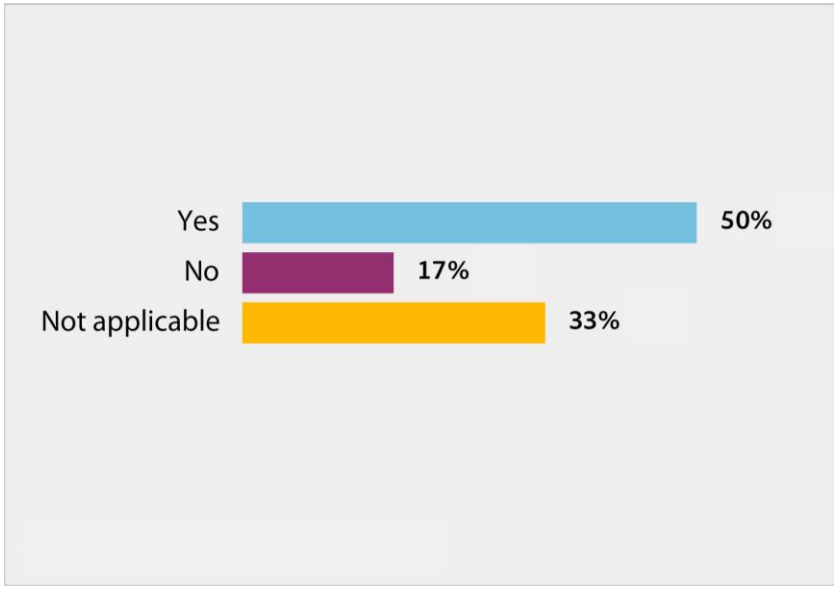
How many months of non-compliant inventory do you believe you are currently stocking? (All categories)



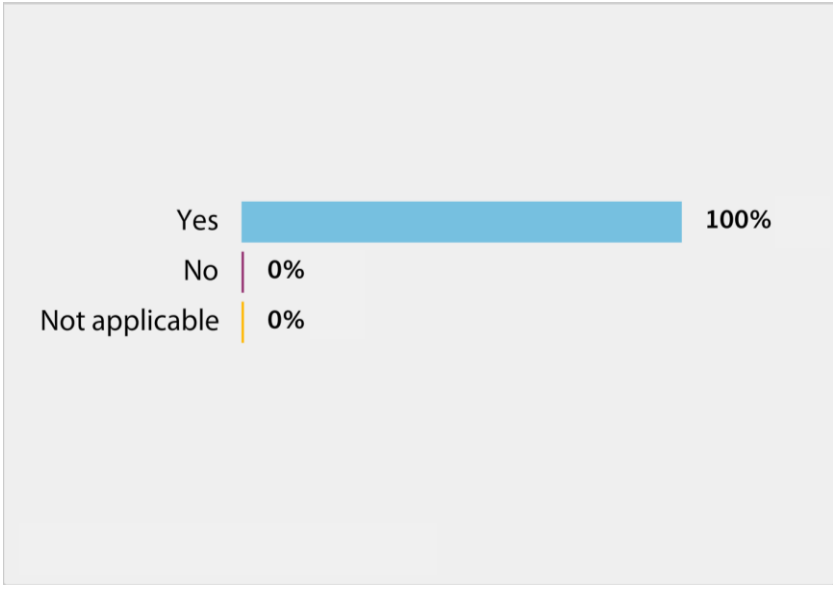
Canada-wide

CIPH PULSE KEY INDUSTRY POLLING DATA

Have you started to build inventory of compliant product?
(All categories)



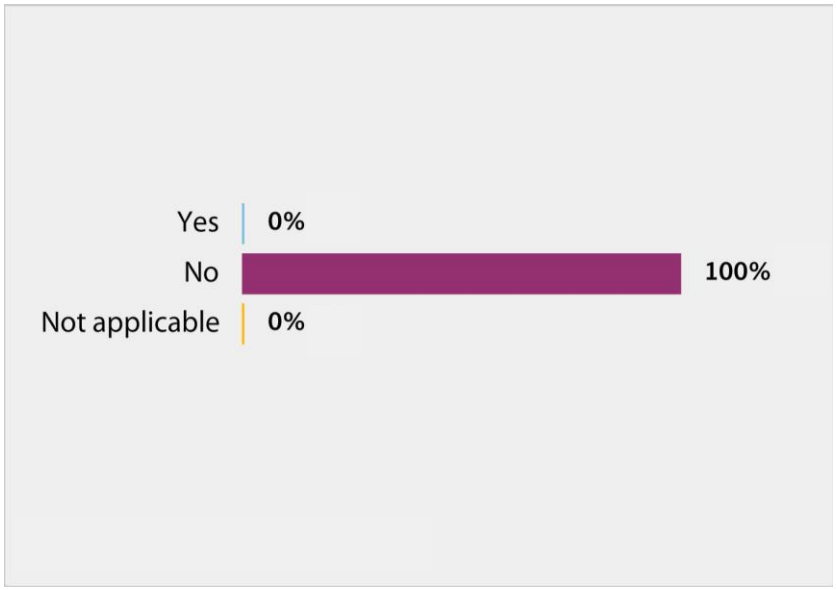
BC



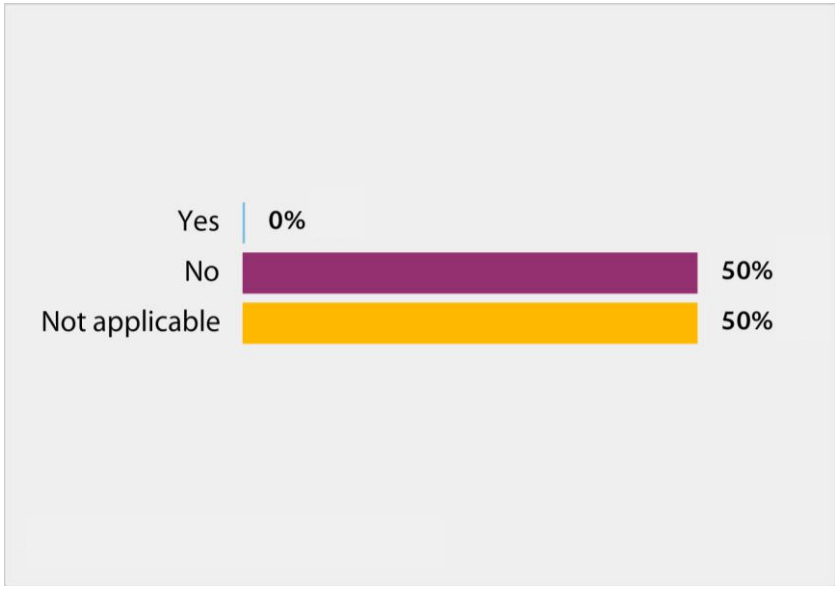
Alberta

CIPH PULSE KEY INDUSTRY POLLING DATA

Have you started to build inventory of compliant product?
(All categories)



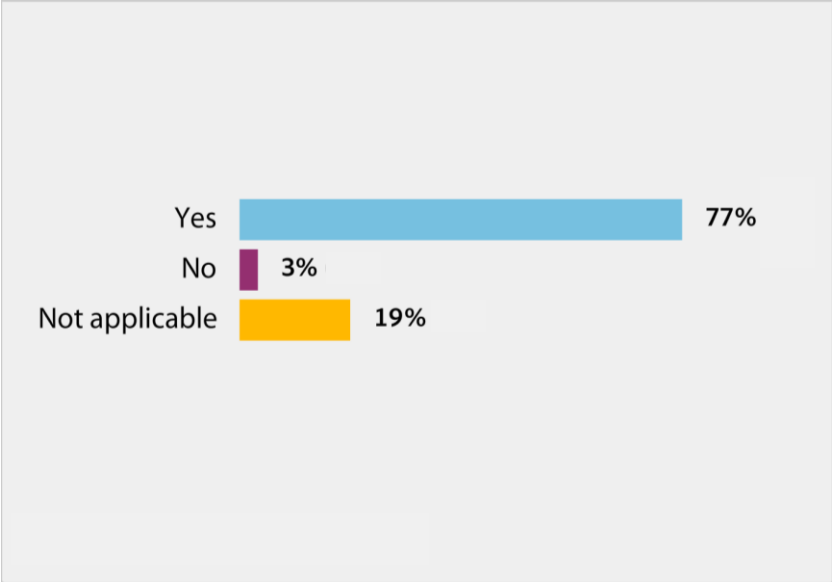
Saskatchewan



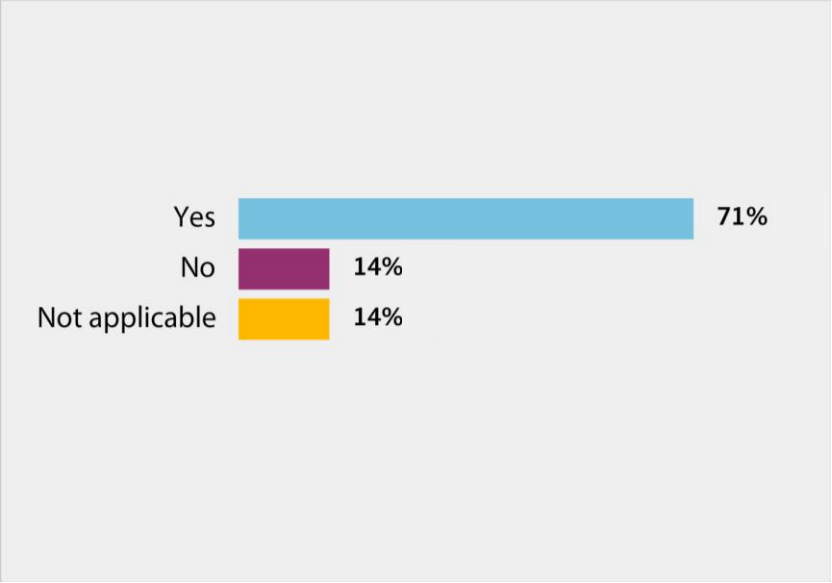
Manitoba

CIPH PULSE KEY INDUSTRY POLLING DATA

Have you started to build inventory of compliant product?
(All categories)



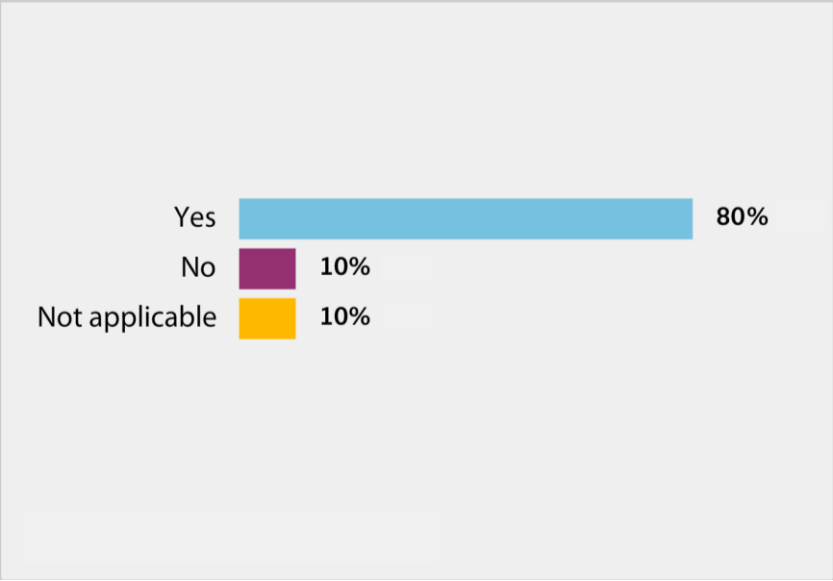
Ontario



Quebec

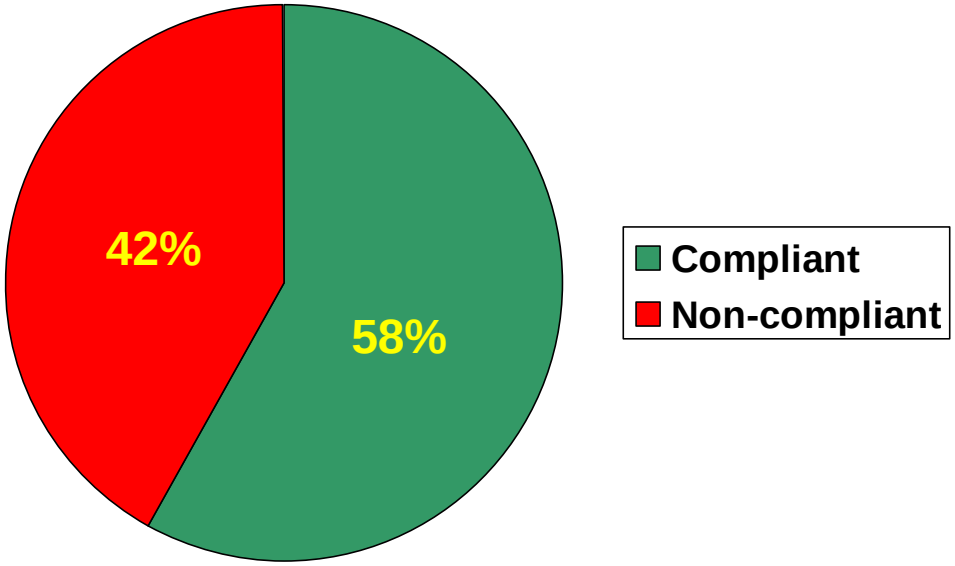
CIPH PULSE KEY INDUSTRY POLLING DATA

Have you started to build inventory of compliant product?
(All categories)

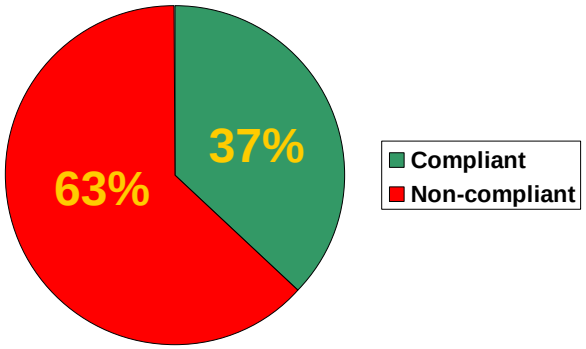


Atlantic (PEI, NS, NB) & Newfoundland

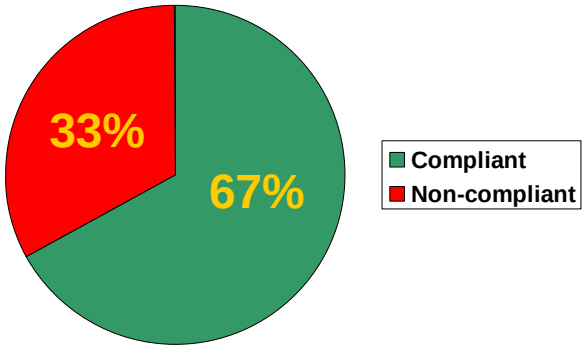
% of compliant vs. % of non-compliant product (All categories)



Wholesalers only

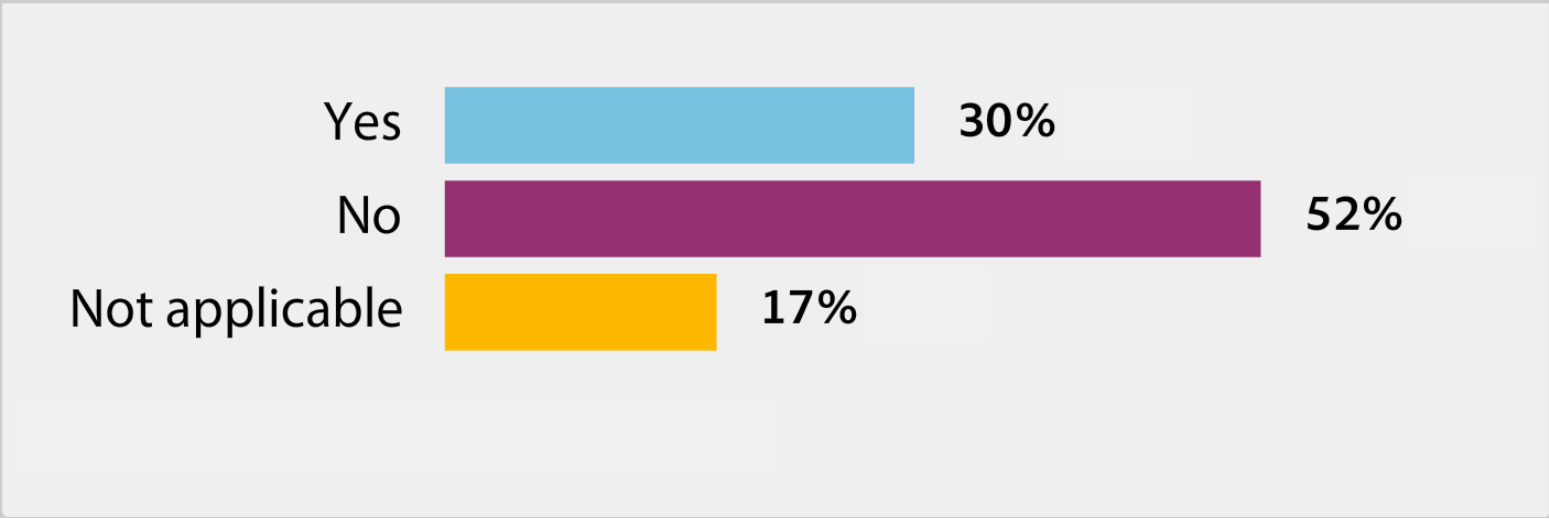


Manufacturers only

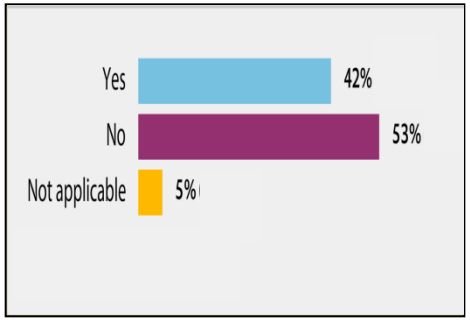


CIPH PULSE KEY INDUSTRY POLLING DATA

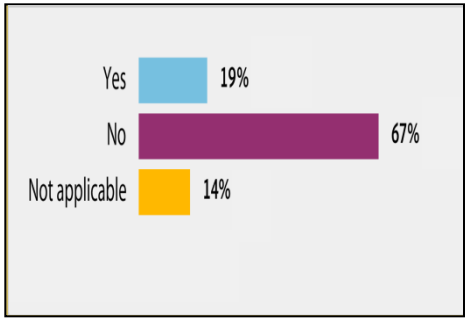
Are you planning to carry dual inventories of regular and lead-free brass products to cover the differently phased adoption of lead-free regulations across the various provinces? (All categories)



Wholesalers only

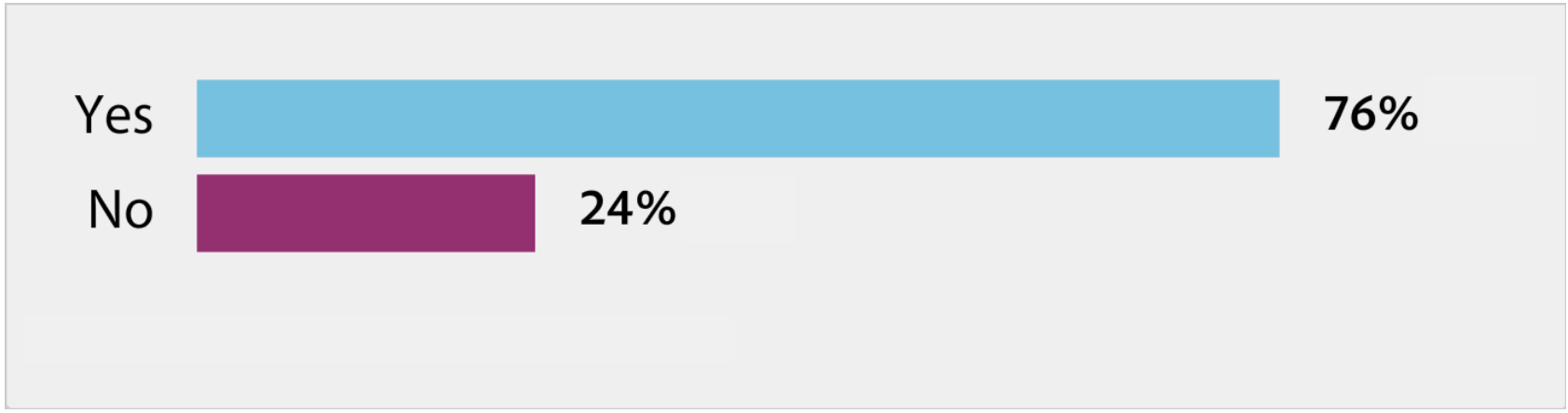


Manufacturers only

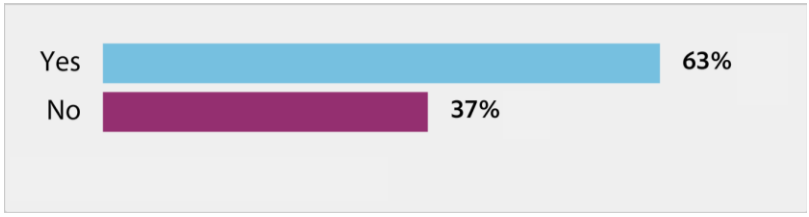


CIPH PULSE KEY INDUSTRY POLLING DATA

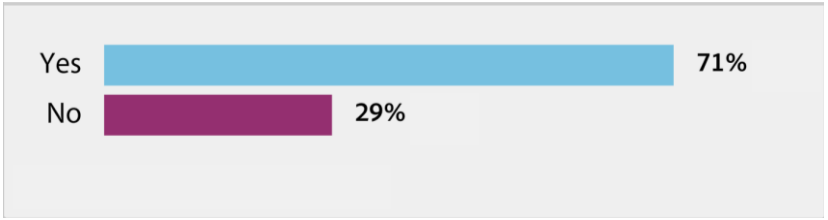
Are you taking steps to raise the awareness of your trades customers about lead-free? (All categories)



Wholesalers only



Manufacturers only



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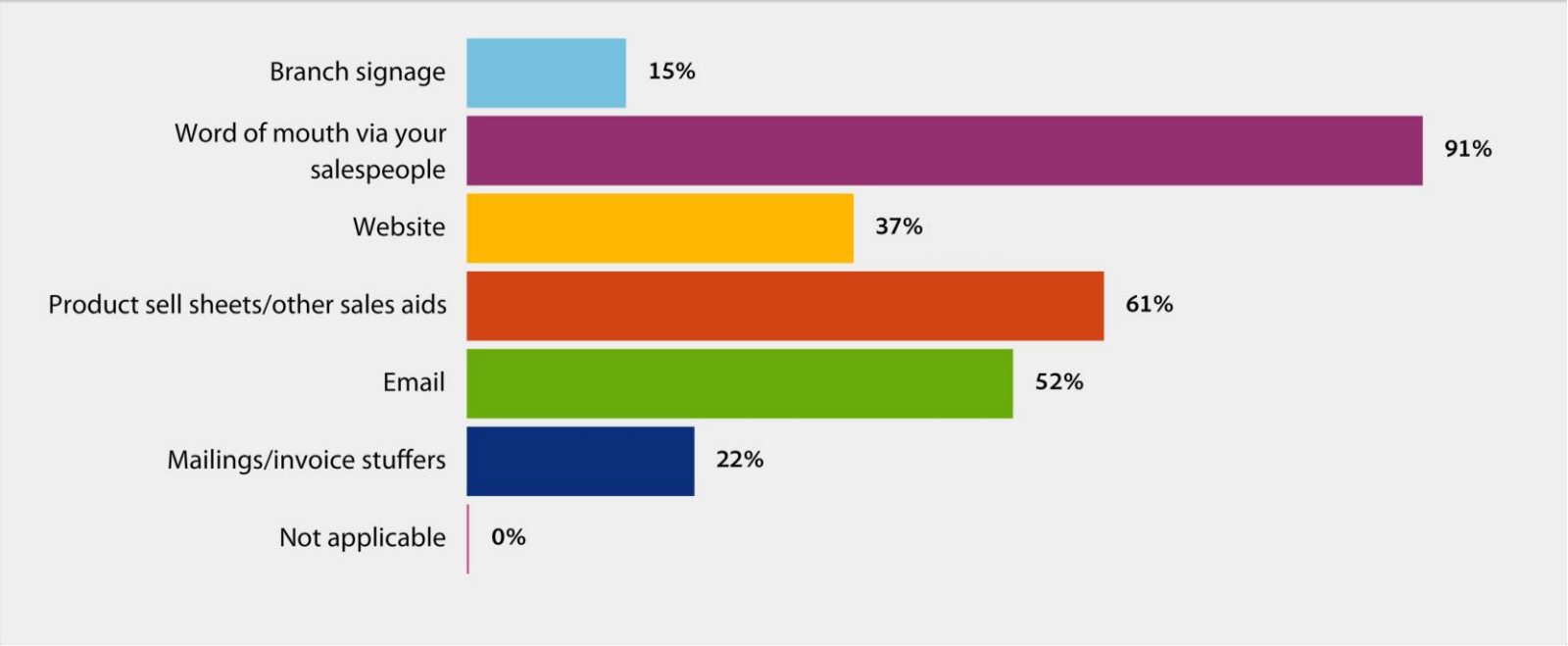
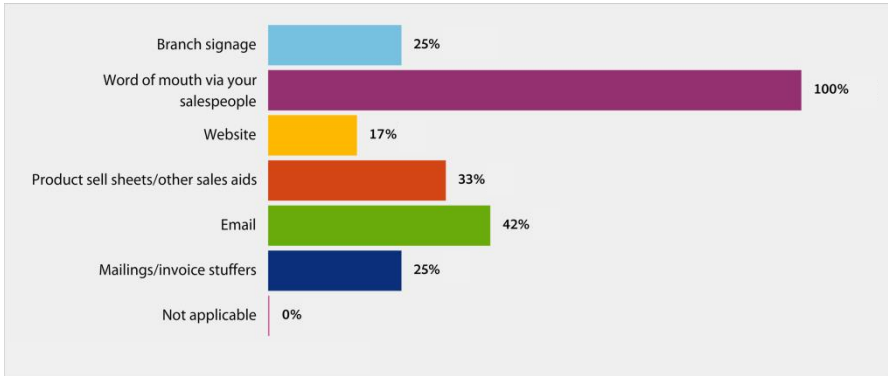
If yes, how? (All categories)



Wholesalers only



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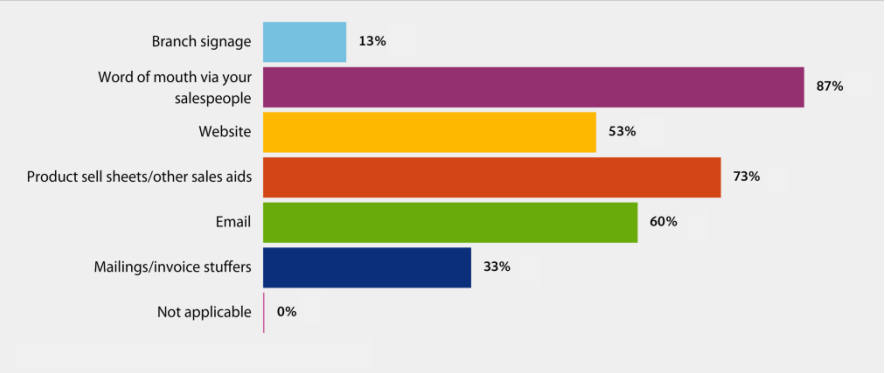

CIPH PULSE KEY INDUSTRY POLLING DATA

Thank you for your feedback.

Questions?

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