

PROPOSED CHANGE TO THE 2015 ONTARIO FIRE CODE

(O. Reg. 213/07, as amended current to January 1, 2015)

CHANGE NUMBER: N/A

CODE REFERENCE: Division B, Sentences 2.13.2.1.(2), 2.13.2.1.(3)

DESCRIPTION OF PROPOSED CHANGE:

Adding new specifications for battery-operated smoke alarms.

X Add a new requirement

X Making a technical change to an existing requirement

X Making an editorial/administrative change to an existing requirement

EXISTING OFC PROVISIONS

- 2.13.2.1. (1) A smoke alarm shall be installed
- (a) if a sleeping area in a dwelling unit is served by a hallway, in the hallway,
 - (b) if a sleeping area in a dwelling unit is not served by a hallway, between the sleeping area and the remainder of the dwelling unit,
 - (c) if a sleeping room is not within a dwelling unit, in the sleeping room, and
 - (d) on each storey without a sleeping area in a dwelling unit.
- (2) A smoke alarm shall
- (a) be permanently connected to an electrical circuit with no disconnect switch between the overcurrent device and the smoke alarm, or
 - (b) be battery-operated.
- (3) A smoke alarm shall meet the requirements of CAN/ULC-S531, "Standard for Smoke Alarms".

PROBLEM

A review of Ontario fire loss statistics for the years 2006 - 2015 revealed that close to 10% of fatal residential fires occurred in homes where the smoke alarm did not operate because the battery was either dead or missing. Battery-operated smoke alarms are only effective if the battery is properly maintained; however, this is contingent upon owners/occupants being aware of maintenance requirements and taking action to replace batteries when necessary. Although public education efforts have raised awareness of smoke alarm maintenance requirements, a significant number of residential fire deaths continue to occur in homes where smoke alarms are not operational.

PROPOSED OFC CHANGE

Note for Proposed OFC Change:

- Black indicates existing text.
- Red underline indicates new text.
- Red strikethrough indicates existing text that is being deleted.

2.13.2.1. (1) [Unchanged]

(2) A **smoke alarm** shall

(a) be permanently connected to an electrical circuit with no disconnect switch between the overcurrent device and the smoke alarm, or

(b) be battery-operated powered by a non-removable, non-replaceable battery that is capable of powering the smoke alarm for a minimum of ten years.

(3) A battery-operated **smoke alarm** installed prior to January 1, 2019, is deemed to be in compliance with Clause (2)(b) and may remain in-service until the smoke alarm is required to be replaced as per Article 6.3.3.7.

(4) A **smoke alarm** shall meet the requirements of CAN/ULC-S531, "Standard for Smoke Alarms".

PROPOSED IN FORCE DATE

January 1, 2019

RATIONALE FOR CHANGE

This proposed change aligns with changes being proposed to Article 6.3.3.7. and proposed new Subsection 9.1.5. for both new and replacement battery-operated smoke alarms.

Where smoke alarms are battery-operated, introducing new requirements for both; a non-removable, non-replaceable battery as well as a long-life battery that is capable of powering the smoke alarm for a minimum of ten years, will facilitate smoke alarm maintenance and reduce instances of dead or missing batteries.

- **The non-removable, non-replaceable battery feature** – will address instances where smoke alarms are found to have '*no battery*'. In these types of smoke alarms, a battery is sealed in the housing by the manufacturer before distribution to the marketplace. A 10-year battery is required in a smoke alarm which is powered by a non-removable battery per CAN/ULC-S531-14.
- **The long-life (10-year) battery feature** – will address instances where smoke alarms are found to have a '*dead battery*' as these batteries have an extended life that aligns with the life of the alarm which is 10 years per CAN/ULC-S531-14.

IMPACT

- This change will impact residential occupancies where smoke alarms are required and permitted to be battery-operated under the Fire Code. Proposed requirements would only apply to new smoke alarm installations and where existing smoke alarms that have either reached end of life or have been damaged are being replaced.
- New requirements are anticipated to simplify maintenance requirements.
- Over a 10 year life span, it is anticipated that the cost of a non-removable, non-replaceable, long-life battery-operated smoke alarm will be less than that of a smoke alarm with replaceable batteries. Although cost will be slightly more at the point of purchase, there will be no annual costs associated with replacing batteries.
- This change will increase demand for battery-operated smoke alarms that specifically have non-removable, non-replaceable, long-life battery features. As such, it may impact existing smoke alarm inventories of manufacturers, retailers, wholesalers, etc. As the market may require an adjustment period, it is being proposed that the compliance date for this new requirement take effect on January 1, 2019.

OBJECTIVE BASED ANALYSIS OF THE CHANGE OR NEW PROVISION

N/A

FUNCTIONAL STATEMENT(S) AND LINK(S) TO OBJECTIVE(S)

- 2.13.2.1.(2)(b) - [F81-OS1.4]
- 2.13.2.1.(3) - N/A
- 2.13.2.1.(4) - [F11-OS1.5, F81-OS1.4]

PROPOSED CHANGE TO THE 2015 ONTARIO FIRE CODE

(O. Reg. 213/07, as amended current to January 1, 2015)

CHANGE NUMBER: N/A

CODE REFERENCE: Division B, 6.3.3.7.

DESCRIPTION OF PROPOSED CHANGE:

Adding new specifications for battery-operated smoke alarms that are being replaced.

- Add a new requirement
- Making a technical change to an existing requirement
- Making an editorial/administrative change to an existing requirement

EXISTING OFC PROVISIONS

6.3.3.7. (1) A smoke alarm shall be replaced within the time frame indicated in the manufacturer's instructions.

(2) When a smoke alarm is replaced

(a) in the case of a suite subject to Part 9, the replacement shall not provide a lower level or type of protection than that required by Part 9,

(b) in the case of a suite not subject to Part 9 that was constructed on or after April 6, 1998, the replacement shall not provide a lower level or type of protection than that required by the Building Code in effect at the time of construction of the suite, and

(c) in the case of a suite not subject to Part 9 that was constructed before April 6, 1998, the replacement shall not provide a lower level or type of protection than that required by Article 2.13.2.1.

(3) The Chief Fire Official may approve an alternative to a requirement of Sentence (2) if, in the opinion of the Chief Fire Official, the alternative provides fire safety protection equivalent to or greater than the fire safety protection that would be provided by the requirement.

PROBLEM

A review of Ontario fire loss statistics for the years 2006 - 2015 revealed that nearly 10% of fatal residential fires occurred in homes where the smoke alarm did not operate because there was either a 'dead battery' or 'no battery'. Battery-operated smoke alarms are only effective if the battery is properly maintained; however, this is contingent upon owners/occupants being aware of maintenance requirements and taking action to replace batteries when necessary. Although public education efforts

have raised awareness of smoke alarm maintenance requirements, a significant number of residential fire deaths continue to occur in homes where smoke alarms are not operational.

PROPOSED OFC CHANGE

Note for Proposed OFC Change:

- Black indicates existing text.
- Red underline indicates new text.

6.3.3.7. (1) [Unchanged]

(2) [Unchanged]

(3) As of January 1, 2019, a battery-operated **smoke alarm** being replaced in accordance with Sentence (2) shall be replaced with a smoke alarm which is powered by a non-removable, non-replaceable battery that is capable of powering the **smoke alarm** for a minimum of ten years.

(4) The Chief Fire Official may approve an alternative to a requirement of Sentences (2) and (3) if, in the opinion of the Chief Fire Official, the alternative provides fire safety protection equivalent to or greater than the fire safety protection that would be provided by the requirement.

PROPOSED IN FORCE DATE

January 1, 2019

RATIONALE FOR CHANGE

This proposed change aligns with changes being proposed to Article 2.13.2.1. and proposed new Subsection 9.1.5. for both new and replacement battery-operated smoke alarms.

Where smoke alarms are battery-operated, introducing new requirements for both; a non-removable, non-replaceable battery as well as a long-life battery that is capable of powering the smoke alarm for a minimum of ten years, will facilitate smoke alarm maintenance and reduce instances of dead or missing batteries.

- The non-removable, non-replaceable battery feature will address instances where smoke alarms are found to have 'no battery'. In these types of smoke alarms, a battery is sealed in the housing by the manufacturer before distribution to the marketplace. A 10-year battery is required in a smoke alarm which is powered by a non-removable battery per CAN/ULC-S531-14.

- The long-life (10-year) battery feature will address instances where smoke alarms are found to have a 'dead battery' as these batteries have an extended life that aligns with the life of the alarm which is 10 years per CAN/ULC-S531-14.

IMPACT

- This change will impact residential occupancies where smoke alarms are required and permitted to be battery-operated under the Fire Code. Proposed requirements would only apply where existing smoke alarms are being replaced.
- New requirements are anticipated to simplify maintenance requirements.
- Over a 10 year life span, it is anticipated that the cost of a non-removable, non-replaceable, long-life battery-operated smoke alarm will be comparable to or less than that of a smoke alarm with replaceable batteries. Although cost will be slightly more at the point of purchase, there will be no annual costs associated with replacing batteries.
- This change will increase demand for battery-operated smoke alarms that specifically have non-removable, non-replaceable, long-life battery features. As such, it may impact existing smoke alarm inventories of manufacturers, retailers, wholesalers, etc. As the market may require an adjustment period, it is being proposed that the compliance date for this new requirement take effect on January 1, 2019.

OBJECTIVE BASED ANALYSIS OF THE CHANGE OR NEW PROVISION

N/A

FUNCTIONAL STATEMENT(S) AND LINK(S) TO OBJECTIVE(S)

6.3.3.7.(3) - [F82-OS1.4]

6.3.3.7.(4) - [N/A]

PROPOSED CHANGE TO THE 2015 ONTARIO FIRE CODE

(O. Reg. 213/07, as amended current to January 1, 2015)

CHANGE NUMBER: N/A

CODE REFERENCE: Division B, New Subsection 9.1.5.

DESCRIPTION OF PROPOSED CHANGE:

Adding new specifications for battery-operated smoke alarms that are being added or replaced.

- Add a new requirement**
 - Making a technical change to an existing requirement**
 - Making an editorial/administrative change to an existing requirement**
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EXISTING OFC PROVISIONS

Not Applicable.

PROBLEM

A review of Ontario fire loss statistics for the years 2006 - 2015 revealed that nearly 10% of fatal residential fires occurred in homes where the smoke alarm did not operate because there was either a 'dead battery' or 'no battery'. Battery-operated smoke alarms are only effective if the battery is properly maintained; however, this is contingent upon owners/occupants being aware of maintenance requirements and taking action to replace batteries when necessary. Although public education efforts have raised awareness of smoke alarm maintenance requirements, a significant number of residential fire deaths continue to occur in homes where smoke alarms are not operational.

PROPOSED OFC CHANGE

Note for Proposed OFC Change:

- Red underline indicates new text.

Subsection 9.1.5.

9.1.5. Sealed Long-life Battery-Operated Smoke Alarm Requirements

9.1.5.1. (1) Battery-operated **smoke alarms permitted in Articles 9.3.4.2., 9.5.4.5., 9.6.4.10., 9.7.4.3., 9.8.4.2. and 9.9.4.13. shall be powered by a non-removable,**

non-replaceable battery that is capable of providing power to the smoke alarm for a minimum of ten years.

(2) Battery-operated **smoke alarms** installed prior to January 1, 2019 are deemed to be in compliance with Sentence (1) and may remain in-service until the smoke alarm is required to be replaced as per Article 6.3.3.7.

PROPOSED IN FORCE DATE

January 1, 2019

RATIONALE FOR CHANGE

This proposed change aligns with changes being proposed to Article 2.13.2.1. and Article 6.3.3.7. for both new and replacement battery-operated smoke alarms.

Where smoke alarms are battery-operated, introducing new requirements for both a sealed, non-removable, non-replaceable battery as well as a long-life battery that is capable of powering the smoke alarm for a minimum of ten years, will facilitate smoke alarm maintenance and reduce instances of dead or missing batteries.

- The non-removable, non-replaceable battery feature will address instances where smoke alarms are found to have 'no battery'. In these types of smoke alarms, a battery is sealed in the housing by the manufacturer before distribution to the marketplace. A 10-year battery is required in a smoke alarm which is powered by a non-removable battery per CAN/ULC-S531-14.
- The long-life (10-year) battery feature will address instances where smoke alarms are found to have a 'dead-battery' as these batteries have an extended life that aligns with the life of the alarm which is 10 years per CAN/ULC-S531-14.

IMPACT

- This change will impact residential occupancies where smoke alarms are required and permitted to be battery-operated under the Fire Code. Proposed requirements would only apply to new smoke alarm installations and where existing smoke alarms are being replaced.
- New requirements are anticipated to simplify maintenance requirements.
- Over a 10 year life span, it is anticipated that the cost of a non-removable, non-replaceable, long-life battery-operated smoke alarm will be either comparable to or less than that of a smoke alarm with replaceable batteries. Although cost will be slightly more at the point of purchase, there will be no annual costs associated with replacing batteries.

- This change will increase demand for battery-operated smoke alarms that specifically have non-removable, non-replaceable, long-life battery features. As such, it may impact existing smoke alarm inventories of manufacturers, retailers, wholesalers, etc. As the market may require an adjustment period, it is being proposed that the compliance date for this new requirement take effect on January 1, 2019.

OBJECTIVE BASED ANALYSIS OF THE CHANGE OR NEW PROVISION

N/A

FUNCTIONAL STATEMENT(S) AND LINK(S) TO OBJECTIVE(S)

9.1.5.1.(1) – [F81-OS1.4]
9.1.5.1.(2) – Not Applicable.

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PROPOSED CHANGE TO THE 2015 ONTARIO FIRE CODE

(O. Reg. 213/07, as amended current to January 1, 2015)

CHANGE NUMBER: N/A

CODE REFERENCE: Division B, 1.2.1.A.

DESCRIPTION OF PROPOSED CHANGE:

Add new referenced standard.

- Add a new requirement
- Making a technical change to an existing requirement
- Making an editorial/administrative change to an existing requirement

EXISTING OFC PROVISIONS

Table 1.2.1.A. reference to CAN/ULC-S531-02

Issuing Agency	Document Number	Title of Document	Code Reference
ULC	CAN/ULC-S531-02	Standard for Smoke Alarms	2.13.2.1.(3) 9.5.4.5.(3) 9.6.4.10.(3) 9.7.4.3.(4) 9.8.4.2.(3) 9.9.4.13.(2)

PROBLEM

The current referenced edition of CAN/ULC-S531 – *Standard for Smoke Alarms* does not address sealed long-life battery requirements for smoke alarms.

PROPOSED OFC CHANGE

Note for Proposed OFC Change:

- Black indicates existing text.
- Red underline indicates new text.

Issuing Agency	Document Number	Title of Document	Code Reference
ULC	<u>CAN/ULC-S531-14</u>	Standard for Smoke Alarms	2.13.2.1.(4) 9.5.4.5.(3) 9.6.4.10.(3) 9.7.4.3.(4) 9.8.4.2.(3) 9.9.4.13.(2)

PROPOSED IN FORCE DATE

January 1, 2019

RATIONALE FOR CHANGE

The Ontario Fire Code (OFC) is being revised to introduce sealed long-life battery requirements for battery-operated smoke alarms. The ULC standard currently referenced in Table 1.2.1.A of Division B does not address sealed long-life battery requirements whereas these requirements are addressed in the 2014 edition of the standard.

A consequential amendment will also be required to Article 1.2.1.1. of Division B to clarify that the new referenced standard will only apply to smoke alarms installed as of January 1, 2019. The existing reference to CAN/ULC-S531-02 will continue to apply to existing smoke alarms.

IMPACT

N/A

OBJECTIVE BASED ANALYSIS OF THE CHANGE OR NEW PROVISION

N/A

FUNCTIONAL STATEMENT(S) AND LINK(S) TO OBJECTIVE(S)

N/A