QUICKCHECK

Smoke Alarm Compliance
Pool Safety Inspections
Maintenence Electrical

10 February 2016

The Research Director
Legal Affairs and Community Safety Committee
Parliament House
Brisbane, QLD 4000

Sent via email to: lacsc@parliament.qld.gov.au

Dear Sir/Madam

Re: Submission to the Fire and Emergency Services (Smoke Alarms) Amendment Bill 2015

Thank you for the opportunity to present our submission.

We are the owners and operators of Quickcheck. Established in 2007, Quickcheck provides owners and lessors of residential rental properties with specialist smoke alarm services, maintenance electrical services and pool safety inspections. We provide smoke alarm services to over 7,000 rental properties in the Wide Bay region. As licensed electrical contractors and pool safety inspector and with nearly nine years experience in the smoke alarm industry, we believe that we have the professional credentials and relevant industry experience to make a substantial contribution to the Parliamentary Review Committee's consideration of the above mentioned Bill.

Clause 5 Amendment of s 104RB (Owner must install smoke alarm)
(1) Section 104RB(2)—
(2) A smoke alarm must be installed on or near the ceiling
1. (a) for each storey of the domestic dwelling containing a bedroom—
1. (i) between each part of the dwelling containing a bedroom and the rest of the dwelling; and
2. (ii) in each hallway that has an entrance to a bedroom; and
2. (b) for each storey of the domestic dwelling that does not contain a bedroom—in an exit path for the storey.

Traditionally, the specific locations of safety devices, fittings, fixtures and so on are governed by Codes, such as The Building Code or Queensland Development Code or Australian Standards, such as AS/NZS 3000:2007 or the Wiring Rules. Installing smoke alarms in the correct locations is a complex task where many different factors need be taken into consideration.

We suggest that "on or near the ceiling" is a particularly vague term and must be clearly defined in terms of measurements as currently required by the Building Code of Australia. For example, an owner of a domestic dwelling with high ceiling heights such as 3, 4, 5 metres, may consider an alarm installed 2 metres from the ceiling to be "near the ceiling". This would render the alarm almost completely ineffective. Also, this section makes no reference to alarms installed in areas that can dramatically decrease their effectiveness, such as too close to the corners of a room, walls of a room, in between exposed battens as well as other areas that in the case of a fire can dramatically decrease the effectiveness of a smoke alarm. These areas are commonly referred to within the industry as "dead space".

We suggest that “for each storey of the domestic dwelling that does not contain a bedroom-in an exit part for the storey” be defined by a code to specify that smoke alarms should be installed on every storey regardless of whether it is in an exit path or not. For example, high set, Queenslander style homes with exit paths at the front and/or rear of the upstairs level often have an enclosed area underneath the main living area where a fire could pose a significant danger to occupants above should a smoke alarm not be installed in this area.

We would suggest that an additional definition of “storey” be provided in a code as being an area that is eighty-five percent enclosed and make up at least ten percent of the total floor space.

In summary, we believe that the above section of the tabled Bill should be removed and replaced with clauses that refer to either the Building Code of Australia or, more appropriately, a Queensland Development Code that is specifically tailored to govern the appropriate locations of smoke alarms in all Queensland residential properties.

It is also noted that this section would no longer make reference to the “Maximum Penalty -5 penalty units” in the current legislation. Further clarification is required as to whether penalties under this section for non-compliance will still apply.

Clause 5 (2A) Each smoke alarm must—
(a) be a photoelectric smoke alarm; and

We fully endorse the mandating of photoelectric alarms in all Queensland domestic dwellings.

It is a fact that only working smoke alarms save lives, however, the two commonly used types of smoke alarms each have significant pros and cons. All smoke alarms are prone to false activations from a wide range of environmental factors including dust, static electricity, insect infestation and in the case of 240-volt smoke alarms, induced current from related electrical circuits.

Photoelectric smoke alarms are effective in the detection of smoke in a wide range of fires including smoldering fires. However, our experience has shown that they are particularly prone to false activation during periods of high humidity during the warmer months as well as condensation during the cooler months. Photoelectric smoke alarms are also particularly prone to false activations from salt spray/residue which makes them unsuitable in areas of coastal properties that are regularly exposed to prevailing sea breezes.

Ionisation smoke alarms are particularly effective at detecting fast flaming fires however, they are prone to false activations from cooking, steam from bathrooms and residual smoke particles (eg. from sugar cane burning). The coronial inquest into the Slacks Creek fire identified that there were no working smoke alarms because the residents of the property had removed the batteries due to false activations. These alarms were identified as being ionisation alarms. If an ionisation or photoelectric smoke alarm false activates, our experience has shown that the occupant of the dwelling will disable the alarm.

It is our professional opinion that all residential properties should be fitted with a minimum of 1 photoelectric and 1 ionisation smoke alarm. This would:

a) Ensure that there is a minimum of 2 working smoke alarms in each residential property
b) Provide occupants with additional coverage across a wider range of fires;
c) Provide occupants with an additional alarm if an alarm has been disabled;
d) Allow owners of residential properties to easily and cost effectively retro fit with compliant smoke alarms.

We believe that there are inherent risks involved with government endorsing one type of smoke alarm over another. It is a real possibility that, in a particular fire situation, a member of the public may be seriously injured or killed due to the presence of only one type of smoke alarm that has not operated effectively.

In conclusion, we recommend a combination of both photoelectric and ionisation smoke alarms to ensure the detection of fire in all residential dwellings and strongly suggest that all Queensland dwellings are required to be fitted with a minimum of one photoelectric and one ionisation smoke alarm on each level.

Clause 5 (2B)
Also, each smoke alarm must be—
(a) a 240V smoke alarm that is hard-wired to the domestic dwelling's electricity supply;

As licensed electrical contractors, we have found that it may not be possible to install this kind of smoke in some properties at all, or without considerable building alterations and cost to the owner of the dwelling. The majority of 240-volt smoke alarms available on the Australian market as well as the majority of 240-volt smoke alarms currently installed in Australian homes contain an alkaline battery that is used as a back up and are replaced approximately every 2 to 3 years. It seems inconsistent that 9-volt smoke alarms be required to contain a lithium battery whilst 240-volt smoke alarms would not.

(b) or powered by a battery that is—
(i) a 9V lithium battery; and
(ii) manufactured to have a battery life of at least 10 years.

Regular testing, maintenance and cleaning of smoke alarms is recommended by all manufacturers in their operating manuals. This is most commonly undertaken whilst replacing batteries. The majority of smoke alarms available on the Australian market are sold with and designed to fit the standard sized 9-volt alkaline batteries and may not function correctly if lithium batteries are retro fitted. Lithium batteries are fractionally bigger than the standard alkaline batteries. Even if lithium batteries are installed, an occupant can still remove the battery from the smoke alarm.

Our experience has shown that the lithium batteries currently available within the Australian market rarely last the specified, ten-year life span (in some cases lithium batteries have only lasted three years). Currently, the retail price for a 9-volt lithium battery is between $20 and $30. We believe that the inclusion of this requirement will add unnecessary costs to owners of domestic dwellings.

In an effort to reduce the current high price of lithium batteries, wholesalers and distributors may be tempted to import inferior quality lithium batteries and introduce them into the Australian market. The recent issues that have arisen from the importation and distribution of the inferior "Infinity cable" is a similar example of the risks the importation of inferior lithium batteries could pose.

Further, 9-volt smoke alarms with a sealed lithium battery require the alarm to be completely disabled (rendered non-functional) to stop the alarm from sounding in the event of a false activation, leaving the occupants without a working smoke alarm in the event of fire.

The requirement for owners/occupants to replace the batteries in smoke alarms encourages the owner/occupiers of residential dwellings to test and clean the smoke alarm, as well as promoting smoke alarm and fire awareness. We believe that the inclusion of this section will either promote complacency with regards to smoke alarms ie. a "set and forget" mentality or encourage owners/occupiers to dismiss all smoke alarm requirements due to the additional costs that lithium batteries pose.

Further, lithium is a toxic substance. The Australian Competition and Consumer Commission, has advised that, if swallowed, lithium batteries can get stuck in a child's throat and burn through the oesophagus, causing severe burns or death. The most serious cases involve ten-cent sized lithium batteries, but all sizes are hazardous. If an occupant unwittingly attempts to charge a lithium battery it may catch fire. We have personally been witness to the aftermath of lithium battery fire where the tenant of the property has attempted to charge a 9-volt lithium battery on a conventional battery charger with devastating results.

We believe that the inclusion of this amendment has the possibility to decrease the overall number of working smoke alarms in Queensland properties and could potentially pose a serious risk to the public's health and safety.

Clause 5 Section 104RB—
(5) In this section—
exit, for a storey of a domestic dwelling, means any of the following that have direct access to a road or an open area—
(a) a corridor or hallway;
(b) a doorway;
(c) a ramp;
(d) a stairway.

exit path, for a storey of a domestic dwelling, means an area that has direct access to an exit for the storey.
open area means an area that is open to the sky and has direct access to a road.

As previously submitted, the above section of the tabled Bill should be removed and replaced with clauses that refer to either the Building Code of Australia or more appropriately, a Queensland Development Code that is specifically tailored to govern the appropriate locations of smoke alarms in all Queensland residential properties.

Clause 6 Amendment of s 104RD (Testing smoke alarms)
Section 104RD(1)—
(1) The owner of a domestic dwelling must test each smoke alarm in the dwelling in compliance with this section—

We consider that the testing and maintenance of smoke alarms in residential rental properties should be required to be provided by licensed and insured service providers. We submit that a relevant government department such as the QBCC or Electrical Safety Office should be responsible for smoke alarm inspector licensing, compliance and disciplinary functions, similar to the functions of the Pool Safety Council.

(a) at least once every 1 year; and

We support this section of the legislation. However, the term “at least once every 1 year” should be more clearly defined as it could be interpreted as at least once every 12 months or once every calendar year. For example, if a property owner tested the alarm in January 2014 and then tested the alarm in December 2015 the owner could be perceived as having complied with this section. However, the alarm would not have been tested in over 22 months.

We suggest that this section should include the requirement for smoke alarms to be tested at least once every 12 months from the date that the alarms were last tested.

b) within 30 days before the start of a tenancy in the dwelling.

We suggest the addition of a small window of 3 - 7 business days after the tenancy has commenced. This would allow property owners or their agents to comply with the legislation in cases where there is a quick tenancy turn around or in instances where a property has been vacant for an extended period and then the property is let urgently.

Clause 7 104RDA Replacing battery-powered smoke alarms

(2) If the smoke alarm does not operate when tested in accordance with section 104RD and the battery is capable of being replaced, the owner of the domestic dwelling must immediately replace the installed battery with a battery that complies with section 104RB(2B)(b).

Please refer to the previous portion of our submission relating to section 104RB(2B)(b).

We believe that the inclusion of this amendment has the possibility to decrease the overall number of working smoke alarms in Queensland properties and could possibly pose a serious risk to the public’s health and safety.

Clause 7 104RDB Replacing hard-wired smoke alarms

(2) If the smoke alarm does not operate when tested in accordance with section 104RD, the owner must immediately replace the smoke alarm with a smoke alarm that complies with section 104RB.

The replacement of hard-wired smoke alarms is electrical work and by law must be undertaken by a licensed electrical contractor. We suggest that in this section of the tabled Bill, owners of domestic dwellings should be required to engage the services of a licensed electrical contractor to replace hard-wired smoke alarms. Also, a small window of 3 - 7 business days should be allowed for practicality.

Clause 9 Insertion of new ch 5, pt 5, div 8

Division 8
Transitional provision for Fire and Emergency Services (Smoke Alarms) Amendment Act 2015

(2) The owner of the domestic dwelling must replace the smoke alarms with smoke alarms that comply with section 104RB, within 3 years after the commencement.

We believe that giving all property owners three years to comply with this section is unreasonable and unenforceable. The owners of residential rental properties have greater responsibilities to ensure that the property is safe for their tenants and we would suggest that all residential properties be required to undertake a smoke alarm installation and certification process similar to the Queensland Government's pool safety laws.

We believe that this should be governed by a relevant department of the Queensland Government and should require owners of residential rental properties to obtain a "Smoke Alarm Compliance Certificate" from a licensed and insured service provider in any of the following circumstances:

a) Before the property is made available for rent;
b) If the property is currently rented, within 12 months from the date of commencement of this Act;
c) Every 3 years.

Further, we believe that owner/occupiers should be required to obtain a "Smoke Alarm Compliance Certificate" from a licensed and insured service provider in the event of any of the following circumstances:

a) Before any transfer date for the dwelling; or
b) Before the commencement of any building or construction works on the property; or
c) Before the commencement of any electrical work on the property.

The above requirements would be a more reasonable and enforceable approach to ensure that there is an ever-increasing number of compliant properties within Queensland.

Summary

In summary, we agree with the key objectives of the Bill that would require all Queensland homes to be fitted with photoelectric smoke alarms and that smoke alarms should be required to be located in specific locations within the home.

We would suggest that these outcomes be obtained not only through the use of legislation but also through the introduction of a Queensland Development Code that would govern smoke alarms and be overseen by a relative government department. To our knowledge, in the nearly 9 years that the current legislation has been in force no one has been penalised or prosecuted under the current Act and would suggest that this implies the need for a specified government department to be responsible for overseeing the application of the legislation. We would urge the Legal Affairs and Community Safety Committee to recommend to parliament that each individual smoke alarm service provider/technician be required to be licensed and insured, and would encourage a "user pays" system for both licensing and "Smoke Alarm Safety Certificates".

The benefits of this proposed system would be:

a) To ensure the safety of occupants of Queensland homes by ensuring that smoke alarms in residential properties are installed correctly, consistency and in accordance with the relative legislation
b) To provide a regulated and accountable industry which would in turn create additional jobs within the Queensland economy
c) To provide the Queensland Government with an additional revenue stream that could be used to fund the relevant government department as well as provide funding for safety awareness campaigns

We would welcome the opportunity to appear before the Legal Affairs and Community Safety Committee to discuss our submission and answer any questions the committee may have, as we believe our industry experience could be of great benefit to the committee's deliberations.

For additional information or clarifications, please do not hesitate to contact us [redacted]

Yours faithfully

Drew and Jacqui de Jager
Quickcheck Pty Ltd