**Submission No 153**

# INQUIRY INTO REGULATION OF BUILDING STANDARDS, BUILDING QUALITY AND BUILDING DISPUTES

**Name:** Name suppressed

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Extension granted

# Inquiry into the Regulation Building Standards, Building Quality & Building Disputes

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To the Public Accountability Committee
Inquiry into the Regulation Building Standards, Building Quality & Building Disputes

Name withheld submission

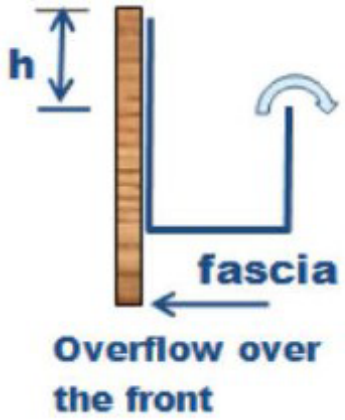
## Introduction

The purpose of this submission is to request the Public Accountability Committee (**Committee**) consider the lack of regulation of High Front Gutters including the lack of a requirement that guttering be certified during final building inspections, and the potential for widespread water damage occurring to Australian homes which will only become apparent with the passage of time.

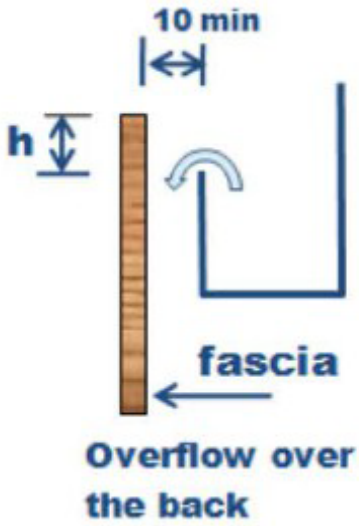
**The Change from Low Fronted Gutters to High Fronted Gutters**

Until approx. 25 years ago Australian homes typically used low fronted gutters. If these gutters overflowed during times of heavy rainfall or blocked downpipes they simply overflowed on the outside of the building.

Low fronted gutter – overflows towards the outside of the building.




**High fronted gutter – overflows back onto the building.**




These diagrams of low & high fronted gutted are taken from www.roof-gutter-design.com.au

**The problem arises** when the high fronted gutter is installed incorrectly and there is no gap left between the building and the back of the gutter, and the gutter is attached to the top of the facia board rather than below the top as required by the Building Code of Australia (**BCA**). (See Appendix 2: image of a typical high fronted gutter installed in this way ie: defectively)

The result is that in an overflow scenario, either caused by heavy rain or by blocked downpipes, the overflowing water may enter the building.

**Findings of Previous Inquiry**

In 2010 the NSW Minister for Fair Trading established the High Fronted Gutter Advisory Committee (HFGAC) to produce a report on high fronted gutters.

The Committee was established after an investigation by the Office of Fair Trading conducted *Operation Flow* which (after media and political attention had focused on high fronted gutters) examined 35 display homes from a variety of building companies and found that none had installed downpipes in a manner compliant with the BCA, however that the guttering was compliant with the performance standards of the BCA as there was no evidence of water damage from overflow (despite water damage on eaves being observed)[1].

Despite not reviewing the performance of any residential buildings, or conducting extensive inquiries with companies providing home insurance the HFGAC reached alarming conclusions.

Despite the formal framing of the language of *Operation Flow* the findings were obviously alarming that 35 new display homes were not adequately guttered. Obviously this raised serious implications for the whole new home industry if the display homes were flawed. Despite this no further inspections of actual building were conducted or commissioned by the committee.

The Report made the following statements:

> *There is however limited data from Operation Flow which suggests downpipes in particular may be on occasion underdesigned and this could increase the ramifications on overflow on high fronted guttering relative to low front gutters. There is also a general concern about the lack of ability to quantifiably manage overflow in preventing it from entering into a dwelling.*[2]

> *it is apparent that under-design of things like cross sectional gutter area and number of downpipes will most likely have a more adverse impact on high fronted guttering than low front gutters because of the greater sensitivity to overflow issues.*[3]

> *significant doubts were raised by a number of parties including councils and industry associations about the effectiveness of current building certification requirements and practices for ensuring that the design and installation of high fronted guttering actually meets the code and standards*[4]

> *guttering is not included in the mandatory certification stages on individual projects and also is not routinely checked because of alleged difficulties and the cost of roof inspections I draw the Committee's attention to Roof Drainage systems the failures, cause and consequences*[5].

[1] *High Fronted Gutters Advisory Committee Report,* 2011, p.18

[2] *High Fronted Gutters Advisory Committee Report,* 2011, p.20

[3] *High Fronted Gutters Advisory Committee Report,* 2011, p.20

[4] *High Fronted Gutters Advisory Committee Report,* 2011, p.27

[5] *High Fronted Gutters Advisory Committee Report,* 2011, p.27

The conclusion by the Committee that a 'systemic' failure of compliance with the BCA could not be found is simply a formal statement of the lack of objective evidence available to the presented to the committee. A fair reading of the Report shows that there was an urgent sense of concern expressed by the committee that the BCA lacked clarity and direction with regard to high fronted guttering and thereof made it difficult to state with certainty whether buildings were compliant or not.

Since the release of the Report in 2011 further indicators have come to light regarding the potential for water damage occurring in in the home building industry as a result of the non-complaint installation of high fronted gutters.

Foremost in these indicators is the report of water damage caused by gutters overflowing into homes resulting in an alarming cost in insurance claims and was reported in the SMH( 12 October 2018). (See Appendix 3 for e-copy link - also newstand copy with notations added and Appendix 4 Conservative Insurance-claim Cost Based on Published Figures.)

## Failures

The majority of new homes and many existing homes have Roof Drainage systems that do not meet the *minimum* Performance Requirements of the Building Code of Australia and Standards. The vast majority of Roof Drainage Systems that are constructed have not been designed correctly. The most common problems are an insufficient number of downpipes and the lack of, or inadequate, gutter overflow methods. The design and construction of Roof Drainage Systems that *fail* to meet the Mandatory Performance Requirements of the Building Code is unacceptable and unlawful.

## Cause

The main cause of non-compliance is the failure of enforcement. Like most laws, without police there would be little or no compliance. Imagine if our road rules were unenforced or self-regulating.

The self-certification by Builders/Contractors and the failure of certifiers to inspect for compliance is a major factor in the construction of non-compliant roof drainage systems. Of concern is the supply of non-conforming gutter and fascia systems and misdirecting information from gutter suppliers **(With fine print disclaimers).**

However, the most concerning, and ultimately the major cause, is the attitude and dismissive behaviour of the NSW Office of Fair Trading. It is of no surprise that non-compliance is so wide spread when the Regulator fails to enforce the laws designed to protect the commumity.

## Consequences

The consequences of failing to ensure that the design and construction of Roof Drainage Systems that meet the Performance Requirements of The Building Code of Australia is not only a failure to enforce the law, but a failure to protect our existing residents, their property and their homes. The devastation caused by mould ridden and damp rotting homes from years of gradual degradation will have serious health and financial consequences to our next generations. In the last two decades NSW has been affected by several severe droughts, nevertheless there are numerous homes affected as the intensity of storms has increased.

An insight into the devastation caused by water damaged homes can be found in other countries, for example the Leaky Building Syndrome in New Zealand and Canada.

## Evidence of Damage Caused by Non-Compliant Roof Drainage Systems Installation

1. **Insurance-claim statistics released by a joint NRMA:SES** investigation (see Appendix 3 SMH, Oct 12, 2018) where it is revealed that water ingress from gutters costs hundreds of millions of dollars in insurance claims each year. Water ingress from overflowing guttering indicates a non-compliant

installation. **Water must not be able to enter the home from the guttering even if all of the downpipes are blocked as referenced in the Standards and Building Code.**

2. The findings of the **Mould in Houses Inquiry** held 2018.

3. **SES Call Outs to 'leaking' homes flooded by blocked gutters.** (See Appendix 3, SES information) The Building Code explains that gutters must be installed in a way that storm water cannot enter the home "even if all of the downpipes are blocked" BCA pg. 221.

***I urge the Committee to call in SES and insurance data to establish more information on water ingress.***

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## OFT - Failure to Act on Contemporary Insurance Claim Data

OFT officials have failed to act in the public interest when provided with 6 years of statistically significant insurance-claim data (Appendix 3, SMH Oct 12, 2018) showing a huge cost incurred due to damage caused by gutter installations not meeting the performance requirements of the BCA. The OFT were also provided with SES emergency call out data indicating that the majority of emergency calls to leaking roofs were due to gutters overflowing into homes creating thousands of unnecessary SES responses. ((Appendix 3, SES Officer interview recording)

The data also revealed that gutters overflowing into homes had comprised a significant portion of storm damage claims for the previous 5 years. It is stated that if 2017 (a severe drought year) had been an average of the previous 5 years, the NSW storm damage claims for 2017 would have been 50% higher – i.e. well over $2 billion dollars - with gutters overflowing into homes the most common reason for claims. (See Appendix 4: Conservative Insurance-claim Cost Based on Published Figures)

Clearly these roof drainage systems installation failures are not "random or isolated project failures"as stated in the HFGAC Report. They are statistically significant, quantifiable evidence of a massive "systemic problem".

The OFT's disregard of the massive insurance claim statistics along with the HFGAC's warped finding has allowed a damaging building practice to be perpetuated through the subsequent 8 years at the cost of multi billions of dollars. It has also caused (avoidable) significant, ongoing, detrimental impacts on residents' health due to the resultant toxic mould formation and proliferation with significant associated personal health effects for sufferers. This is evidenced by the 2018 Bio-toxin Inquiry into Mould in Houses and the existence of the Toxic Mould Australia Support Group which has many thousands of members. Also impacted is the long term material degradation of homes - the cost of which may not be recoverable through insurance.

## OFT Failure to Investigate Guttering System Failures & Non-conforming Products

The OFT and the HFGAC officials know of the industry-wide use of the spring clip system for installing high-front guttering in NSW (See Appendix 3. HFGAC Report, pgs. 18-19). The OFT also know or have been made aware of the following facts – yet they have failed to act to protect home owners and residents of NSW from the damaging effects of their continued use:

1. That the widely used spring clip form of gutter attachment is fit for purpose when installed correctly and used for *short* lengths of guttering only. (See Appendix 1. Minister's correspondence)
   Whilst the OFT would not commit to revealing how long a "short length" is - industry sources confirm that it would be around 2 metres long yet, most homes have their entire systems installed in this way.
2. The OFT have been provided with contradictory documentary evidence from Stramit Pty Ltd. On one hand, in a patent application, Stramit admit to the failure of their spring (snap) clip product to meet the Performance Requirements of the BCA as it allows water ingress (Appendix 5). On the other hand, in a letter to McDonald Jones Homes, Stramit stay silent about this knowledge and do not admit to the spring clip's failure. However, supply chain laws require full disclosure. (Appendix 6).

## Building Certifiers' Responsibility

The Minister's letter also states that builders or contractors are not to rely on certifiers to check exact compliance with the Building Code of Australia. However, ***homeowners rely on and trust*** that the regulators will protect their interest. By their inaction in the face of irrefutable evidence of a "systemic problem" it is apparent that protecting home owners' health and investment is of no concern to the OFT officials responsible for doing so.

Further, in the Appendix 1 letter, Minister Kean states that "Certifiers are expected to obtain and scrutinise available evidence to be satisfied that the building work meets applicable requirements and is suitable for occupation or use *prior* to issuing an occupation certificate." A non-compliant roof drainage system that fails to prevent storm water-ingress resulting in mould and even collapsed ceilings (when the water runs over window and door lintels and into the ceiling space) is not a home suitable for occupation. Yet the OFT has not acted to protect the homeowners and residents who are unaware of the overflow requirements of the BCA.

## Conclusion

The residents of NSW must be effectively protected against preventable water ingress by having correctly designed and installed Roof Drainage systems.

In the same way as electrical fuses protect residents, so too a compliant Roof Drainage System with an acceptable continuous overflow measure, is required to protect residents from water flowing into the home causing mould-related health issues and significant material damage.

**The following Appendices support this submission:**

**Appendix 1: Minister/OFT letter:**
Confirming that the widely used spring clip form of gutter attachment is fit for purpose for ***short*** *lengths* of guttering only.

**Appendix 2: Roof Drainage systems:**
A brief overview including a typical non-compliant gutter installation image. A diagram shows a roof drainage system acts like a funnel and how high-front guttering forces water towards the house illustrating why a BCA Acceptable Continuous Overflow is required to meet the BCA mandatory performance requirements.

**Appendix 3: Links to Articles & Resources**:
Detailing the problems associated with the use of high fronted guttering, as well as comments regarding the way the OFT has handled this matter. Also, SES reports including an SES officer confirming most "leaking roof" emergency call outs are caused by blocked gutters.

**Appendix 4: Conservative Insurance-claim Cost Based on Published Figures**
Insurance payout analysis.

**Appendix 5: Extracts from Stramit Patent Application**
Extracts from patent application regarding spring clip guttering and its water ingress consequences.

**Appendix 6: Copy of Stramit Letter to McDonald Jones Homes**
Showing how Information supplied to customers is contrary to that described in the above Patent application. Knowledge of the spring clips BCA performance requirement failures are not disclosed.