

# Hydrostatic testing of fire hydrant systems without booster connections

First issued: July 2007  
Review date: January 2024  
Revision frequency: Triennially  
Version number: 2

Guideline No. 35

Author: FRV FSSPR Unit

Sponsor: BIC & BSR Units

Authorised by: ACFO,  
Fire Safety

## 1. PURPOSE

The purpose of this guideline is to inform industry of the Fire Rescue Commissioner's position in relation to the hydrostatic testing of fire hydrant systems that do **not** incorporate fire brigade booster connections.

For simplicity, fire hydrant systems that do **not** incorporate fire brigade booster connections, will be referred to as '*feed fire hydrant systems*' from hereon in.

## 2. SCOPE

The application of this guideline relates to existing buildings and building work that are situated in or carried out in the Fire Rescue Victoria (FRV) fire district that are provided with *feed fire hydrant systems*.

## 4. BACKGROUND

Where building work is carried out, the hydrostatic testing of a fire hydrant system occurs when a fire hydrant system is first commissioned. Hydrostatic testing also occurs typically at 5 yearly intervals as part of the required ongoing maintenance of an installed fire hydrant system.

Historically, FRV and its predecessor, the Metropolitan Fire and Emergency Services Board (MFB), are aware that the hydrostatic testing of *feed fire hydrant systems* has occurred resulting in unnecessary damage to public infrastructure water mains, which in turn has increased the risk of contamination within the potable water supply.

## 5. ISSUE

When a hydrostatic test of a fire hydrant system is conducted, it is the Fire Rescue Commissioner's position that the test should be conducted in a manner that is consistent with operational firefighting practices, vis., boosting the pressure within the fire hydrant system through the installed fire brigade booster connections.

From a technical compliance perspective, Australian Standard 2419.1—2021 *Fire hydrant installations: system design, installation and commissioning* (AS2419.1) [1] requires all fire hydrant systems to be hydrostatically tested at the initial commissioning stage, whether the fire hydrant system has fire brigade connections or not.

Within the context of essential safety measures maintenance compliance, Australian Standard 1851—2012 *Routine service of fire protection systems and equipment* [2], does not require a fire hydrant system without fire brigade booster connections (a.k.a. a *feed hydrant system*) to be routinely hydrostatically tested.

When hydrostatic tests of fire hydrant systems are carried out within systems that contain fire brigade booster connections, they are undertaken downstream of the feed hydrant, using apparatus that induces pressure into the fire hydrant system via the installed fire brigade booster connections.

*Feed hydrant systems* are predominantly subjected to town main pressures and are occasionally subjected to water hammer surges after they have been shut off, i.e., following a fire suppression activity or a flow test. *Feed hydrant systems* are not subjected to the higher operating pressures that are imposed on fire hydrant systems that incorporate booster connections.

## 6. POSITION

In the current legislative environment, the Fire Rescue Commissioner does not require *feed hydrant system* to be hydrostatically tested in connection with an application for a statutory report and consent submission under Regulations 129 or 187 of the Building Regulations 2018 [3].

## 7. REFERENCES

- [1] AS 2419.1-2021 Fire hydrant installations: system design, installation and commissioning
- [2] AS 1851-2012 Routine Service of Fire Protection Systems and Equipment
- [3] Building Regulations 2018