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| GENERAL | BUILDING SAFETY |
| 0.5.1 GUIDELINE FOR REFERRAL OF DISTILLERIES TO THE TASMANIA FIRE SERVICE | |

1. APPLICATION

This guideline is applicable to building surveyors, building designers, fire safety engineers, bushfire hazard practitioners and other building professionals involved in the design and construction of special fire hazard premises including distilleries and bond stores.

2. PURPOSE

This guideline has been prepared to outline the position of the Tasmania Fire Service (TFS) on the minimum operational fire safety requirements which distilleries, bond stores and the like must fulfil to ensure an appropriate level of fire safety is achieved for occupants and responding fire fighters.

The guideline also contains a summary on the required process for referring information to the TFS as part of the building regulatory process for reporting on distilleries, bond stores and similar facilities, and details the level of information which should be provided. This guideline was developed in response to inconsistencies being observed in the requests and information provided as a reporting authority under regulation 26A and 27 of the *Building Regulations 2016*, and subsequent investigations into the state of fire safety in distilleries in Tasmania.

3. INTRODUCTION

Under the *Building Act 2016*, all building work must be designed to achieve compliance with the relevant fire safety requirements of the National Construction Code (NCC) and the applicable Directors Determinations. This includes requirements for building fire safety and bushfire protection. Section 98 and 132 of the *Building Act 2016* requires the building surveyor to determine whether proposed building works are likely to comply with the Act.

4. WORKPLACE HEALTH AND SAFETY

The *Building Act 2016* requires a Building Surveyor to consider any other matter (considered relevant) when determining whether they can issue a Certificate of Likely Compliance (CLC). As such, the footnote in the Tasmania Appendix of the NCC outlines other legislation which may impact the design and construction of buildings that sit outside of the *Building Act 2016*.

Section 274 of the *Work Health and Safety Act 2012* allows the Minister to approve a code of practice. In Tasmania the *Code of Practice – Managing Risks of Hazardous Chemicals in the Workplace* was enacted on 5 December 2018. This code of practice then refers to AS 1940 for the design and management of buildings containing flammable liquids in packages in bulk. AS 1940 includes provisions for fire safety in buildings that contain flammable liquids, including potable spirits. The *Workplace Health and Safety Regulations 2012* identifies flammable liquids that exceed certain placard and manifest quantities as hazardous chemicals.

Workplace Health and Safety (WHS) legislation in Tasmania generally requires workplaces to reduce risks, introduce and maintain appropriate controls for hazards and provide adequate administrative procedures for workers. Distilleries and bond stores are workplaces.

Safe Work Australia has published a code of practice for managing risks of hazardous chemicals in the workplace. The code of practice references AS 1940, *The storage and Handling of Flammable Goods and Liquids*, which contains various provisions for fire safety and firefighting and in certain circumstances, it also requires a hazardous area classification for explosive atmospheres. The Standard provides a very detailed description of prescribed storage and handling requirements for flammable liquids and includes subjects such as but not limited to the following:

- Ventilation and vapour barriers,
- Bunding requirements,
- Electrical safety,
- Specific installed firefighting requirements,
- Safety equipment,
- Piping,
- Dispensing,
- Storage,
- Handling of flammable liquids.

5. BUILDING SAFETY REQUIREMENTS AND THE GENERAL FIRE REGULATIONS

Section 3 of the *Building Regulations 2016* and the *Director's Determination for Special Fire Hazard Materials* refer to distilleries as being special fire hazard premises.

The TFS is a reporting authority for special fire hazard premises and is considered a key stakeholder in distillery design and reporting from an operational firefighting and fire safety perspective. The position of the TFS is summarised as follows:

- Clauses E1D17 (formally E1.10) and E2D21 (formally E2.3) of NCC are relevant to the design and construction of distilleries and bond stores. Compliance with the WHS provisions, the relevant codes of practice and AS 1940 is likely to support the operational requirements of TFS. If there are deviations from these requirements, a suitably qualified fire safety engineer or risk engineer specialised in the storage / handling of dangerous goods should be engaged to determine suitable provisions for fire safety.

Where deviations occur the TFS must be consulted during the development of the fire safety strategy for the building(s). The TFS considers the process identified in clause A2G2 (formally A2.2(4)) of the NCC as appropriate for the design of special fire hazard premises.

The TFS strongly supports the application of AS 1940 to allow appropriate assessment and reporting of operational firefighting and fire safety requirements.

When referring information to the TFS, the following information should be provided as a minimum to help facilitate an effective reporting process:

- Any fire safety engineering or risk assessment reports;
- Schematics showing fire safety system designs;

- Dangerous goods reporting and any hazardous area classification assessments;
- Architectural drawings of the building;
- Any other relevant documentation; and

In addition, if being constructed in a bushfire prone area:

- A bushfire hazard report with a bushfire hazard management plan; and
- A bushfire emergency plan.

The General Fire Regulations specify that special fire hazard buildings must have an evacuation plan approved by the Chief Officer of the TFS.

6. COMPLIANCE WITH BUSHFIRE PRONE AREA REQUIREMENTS

NCC Class 8 buildings (includes distilleries) are identified as a building class to which the *Directors Determination- Bushfire Hazard Areas* applies. To satisfy this legislation, the following requirements must be fulfilled.

- The proposal, if located in a bushfire prone area, must be assessed by a bushfire hazard practitioner accredited by the Tasmania Fire Service, and provided a bushfire hazard report and a certified bushfire hazard management plan (BHMP). Bushfire prone areas can be identified by accessing planning scheme code overlays which are available to view on the Tasmanian List Map.
- The site must be provided with a defined hazard management area around the buildings which will provide adequate separation distances between the buildings and the bushfire hazard. This distance will be determined by the bushfire hazard practitioner and will be included in the BHMP.
- The site must be provided with an appropriately designed and constructed access which will accommodate manoeuvring of fire appliances onto and around the site and provide access to a suitable firefighting water supply.
- The site must be provided with a compliant reticulated or static water supply which will provide the minimum quantities as outlined in the *Directors Determination- Bushfire Hazard Areas*.
- The site must be provided with a Bushfire Emergency Plan which must be reviewed and approved by the Tasmania Fire Service. These documents are intended to provide for the safe movement of staff and visitors from the site in the event of a bushfire impacting the area.

It should be noted that bushfire legislation and the NCC have different requirements regarding firefighting water supplies. Generally, a distillery will require very large quantities of stored water, or a good mains supply, which will generally be sufficient for the purposes of satisfying bushfire requirements.

It is important to remember that a facility which does not trigger the manifest quantities in Schedule 11 of the Workplace Health and Safety Act due to a small operating size and low output, may eventually do that if the business grows. This intensification would trigger the need to comply with the Hazardous Use sections in the Bushfire-Prone Areas Code in the planning scheme. Similarly, repurposing a shed as a distillery or bond store would trigger the bushfire requirements.

The ethanol content in the spirit (alcohol by volume) is meaningful with the application of Schedule 11, and it should be noted that a liquid with an ethanol content up to 24 percent is not considered

to be flammable and as such has no manifest quantity. A spirit with an ethanol concentration within the range from 24 percent to less than 70 percent, has been determined to be flammable liquid category 3 with a manifest quantity of 10,000 litres, and any spirit mix with an ethanol concentration which is 70 percent or greater, has been assessed as a flammable liquid category 2, with a corresponding manifest quantity of 2500 litres.

Approved by:

A handwritten signature in blue ink, appearing to read 'A. McGuinness', is positioned above the printed name and title.

Andrew McGuinness
MANAGER, BUILDING SAFETY UNIT

(For and on behalf of the Chief Officer)