Fire & Rescue NSW

File Ref. No: BFS18/154 (8000002525)
TRIM Doc. No: D18/8298
Contact: Station Officer C. Wheatley

9 February 2018

The Department of Planning & Environment
GPO Box 39
SYDNEY NSW 2001

Email: Chloe.Dunlop@planning.nsw.gov.au

Dear Ms Dunlop

Response to Submissions
Bingo Minto Resource Recovery Facility
13 Pembury Road MINTO (SSD 16_7462)

I refer to correspondence submitted to Fire & Rescue NSW (FRNSW) by the Department of Planning and Environment (the Department) on 17 January 2018. The Department has invited FRNSW to respond to the proponent's Response to Submissions (RtS) in relation to the subject proposed development. The RtS was authored by Ms Claire Hodgson, Mr Sean Fishwick and Ms Lauren Clear of Arcadis Australia Pacific Pty. Ltd. (Revision 1 dated 15 December 2017).

FRNSW have reviewed the submitted document, specifically, 'Table 4-3 of Section 4.2 – Response to Government Agency Submission – FRNSW'. Additionally, FRNSW has reviewed Appendix K - Fire Engineering Concept Design Statement (Appendix K) undertaken on the proposed development. As detailed within Section 8 of Appendix K, the final revision of Appendix K was prepared by Austech Consulting Pty Ltd and dated 5 December 2017. FRNSW note that a certifying authority has yet to be identified within section 2 of Appendix K.

Comment

FRNSW acknowledges the limited response provided within Table 4-3 of Section 4.2 of the RtS, including the statement that an assessment of the amended proposal against the National Construction Code (NCC) – Building Code of Australia was included as appendix N of the Environmental Impact Statement (EIS) – Fire Safety Study.

FRNSW does not consider the information detailed within Table 4-3 of Section 4.2 of the RtS, Appendix K and also the proposal's EIS to be consistent with the DtS provisions of the NCC applicable to the proposed building, which is noted as being 6,534m^2 floor area.

This raises several concerns for FRNSW regarding the interpretation being applied by Austech Consulting Pty Ltd and the intended approach to achieve compliance with the NCC. Specifically, will the fire safety strategy approach utilise assessment of an oversized fire compartment to meet the relevant NCC performance requirements or will the DtS provisions applicable to a large isolated building be adopted.

Table 2 in Section 3 of Appendix K identifies that the floor area of the Class 8 building is proposed to be 6,534m^2. This exceeds the maximum floor area for a fire compartment of Type A construction, as detailed within Table C2.2 of the NCC, by 1,534m^2. Although not detailed within Table 2, the volume of the proposed building has been documented within Table 3 in Section 3 of Appendix K as being 60,000m^3. This will result in the volume of the proposed building exceeding the maximum volume permitted by the applicable NCC's deemed to satisfy provisions by 30,000m^3 (Table C2.2 of the NCC).

Given the maximum size of fire compartments (or atria) as detailed within Table C2.2 of the NCC, FRNSW considers that the proposed compartment size of 6,534m^2 (as detailed in Table 2 in Section 3 of Appendix K) will result in the requirements of Clauses C2.3 and C2.4 of the NCC being triggered for the proposed development. However, performance requirement CP9, Clauses C2.3 and C2.4 of the NCC have not been adequately addressed within the RtS, Appendix K or in the EIS.

Additionally, given the maximum volume having been exceeded, provisions for a fire hydrant ring main in accordance with AS 2419.1 – 2005 have not been proposed for the site or addressed within Appendix K. Table 3 in Section 3 of Appendix K also indicates that external fire hydrant locations for the proposed Type A constructed building are unable to provide hydrant and emergency service personnel fire protection in accordance with the DtS provisions of the NCC (N.b. as required by AS 2419.1 – 2005). FRNSW considers the requirements for both perimeter access and fire hydrant ring main provisions to be appropriate measures for a large isolated building.

FRNSW reiterates our comments previously provided to the Department on 4 July 2017 (TRIM Doc. No. D17/45704). It is FRNSW expectation that due to the special problems of firefighting associated with resource recycling facilities (n.b. due to the nature, type and quantity of the materials stored on the allotment and/or the building) that Clauses E1.10 and E2.3 of the NCC are considered to be applicable to the proposed development and should be satisfied.

Recommendations:

Based on our review of the RtS the following recommendations are submitted to the Department for consideration:

1. FRNSW recommends that prior to the commencement of construction, that the design of the development is finalised in consultation with and to the satisfaction of FRNSW. This is recommended to include suitable additional provisions for special hazards by specifically addressing Clauses E1.10 and E2.3 of the NCC.

2. Given the nature, type and quantity of the materials stored within the proposed building, FRNSW would be reticent to support a fire compartment of the proposed size without the relevant deemed to satisfy provisions of the NCC

being applied (i.e. the relevant NCC deemed to satisfy provisions being those applicable to a large isolated building). Therefore, as a minimum FRNSW recommends that the proposed development attains compliance with the relevant NCC's performance requirements by application of the relevant NCC's deemed to satisfy provisions and applicable Australian Standards. The relevant provisions being those applicable to a fire compartment which exceeds the maximum floor area or volume limitations detailed within Table C2.2 of the NCC.

3. FRNSW recommends that the provisions for the containment of contaminated firewater for the proposed development should be justified given the increase in fire compartment size and fire load quantities. Provisions such as bunding of the proposed building and automatic isolation of the storm water system in the event of a sprinkler and/or fire hydrant system activation at the proposed site, are recommended to be finalised in consultation with and to the satisfaction of FRNSW.

4. To ensure our operational requirements are satisfied, the proponent, and/or their nominated consultants, are recommended to be required to engage with FRNSW prior to finalizing the design of the development's fire safety and containment systems.

For further information please contact Cameron Wheatley of the Fire Safety Assessment Unit, referencing FRNSW file number BFS18/154 (8000002525). Please ensure that all correspondence in relation to this matter is submitted electronically to firesafety@fire.nsw.gov.au.

Yours sincerely

Station Officer Mark Castelli
Team Leader
Fire Safety Assessment Unit