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Contact: Mark Castelli

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The Department of Planning & Environment
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Dear Ms Mathews

**Penrith Resource Recovery Facility
46-48 Peachtree Road
(SSD16_7733)**

I refer to the above development proposal's Environmental Impact Statement (EIS) which is currently on exhibition. Fire & Rescue NSW (FRNSW) have reviewed the EIS and the following comments and recommendations are submitted to the NSW Department of Planning & Environment (the Department) for consideration.

Overview

Due to the processes undertaken at resource recovery facilities, it is FRNSW experience that the frequency of recycling facility fires is greater in comparison to other industries. In addition, the fire hazards associated with stockpiled recyclable material directly correlate to the:

- The volume of the stockpile and potential fire magnitude,
- The life safety risk to firefighters and employees,
- The environmental risks to the local and surrounding areas, and
- The potential structural damage to buildings, other structures and plant.

The potential fire size is the primary factor that FRNSW considers when determining the level of resources required to be deployed to safely and efficiently control and extinguish fires at these facilities and to mitigate any environmental risk resulting from the fire.

Recent recycling industry fire incidents have resulted in several large fires that required the deployment of large numbers of FRNSW resources. To ensure safe resolution of these incidents FRNSW personnel and equipment have been required to remain in attendance at the fire ground for more than 12 hours. The long duration of recent fire incidents is primarily attributable to '*special problems of firefighting*' that either existed prior to the fire or have arisen during the incident.

Note: The term 'special problems of firefighting' is used in Clause E1.10 of the National Construction Code (NCC).

In relation to the recycling industry, it is FRNSW experience that 'special problems of firefighting' are primarily related to the following aspects:

1. Inappropriate stockpile sizes (i.e. pile area, height and total volume).
2. Insufficient separation of stockpiles (which hinders first responder vehicle access and increases the likelihood of fire expansion).
3. The capacity of the fire hydrant system and its water supply is insufficient for the fire load kept on site.
4. Buildings are often not served by a sprinkler system.
5. Buildings not usually provided with smoke hazard management systems that facilitate safe firefighting operations.
6. On-site provisions to contain contaminated fire water runoff are not usually in place.

Application of Clause E1.10 of the NCC

It is FRNSW experience that the above matters are not usually adequately addressed by typical application of the NCC by certifying authorities. It is FRNSW expectation that due to the special problems of firefighting associated with such 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 should be satisfied.

The NCC Deemed-to-Satisfy Provisions (DtS) do not specify what 'suitable additional provisions' can be applied to prescriptively satisfy Clause E1.10 and E2.3. Consequently, it is FRNSW opinion that the lack of prescriptive guidance is intended to ensure that in each instance where Clauses E1.10 and E2.3 are deemed applicable, the development should be assessed on its merits. We highlight that FRNSW opinion is consistent with the guidance and clarification detailed in the 'Guide to Volume One of the NCC'.

It is also FRNSW opinion that where Clauses E1.10 and E2.3 of the NCC are applicable, that the suitable additional provisions should be developed in consultation with the relevant fire agency having statutory responsibility for extinguishing fires which, in this instance, is FRNSW (i.e. pursuant to Section 6 of the Fire Brigades Act 1989). This is because the effectiveness of any suitable additional provisions must be adequate to mitigate any special problems of firefighting that are identified.

Special problems of firefighting should, due to their specific nature, be identified by the relevant fire service. The relevant fire service will be familiar with their agencies

operational capabilities and limitations and have substantial experience in relation to problems that are unique to and associated with resource recovery developments. Further, it is FRNSW experience that the imposition of Clauses E1.10 and E2.3 of the NCC upon developments by certifying authorities is infrequent. FRNSW suspects that this is because many certifiers lack familiarity or expertise in this specialist area of fire compliance.

Recommendation/s

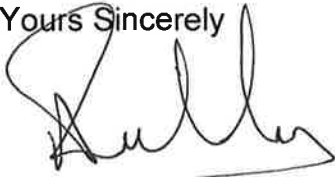
Should development consent be granted, that the following condition form part of the instrument of consent:

- a) That Clauses E1.10 and E2.3 of Volume One of the National Construction Code (NCC) be complied with to the satisfaction of FRNSW. In particular, that the following aspects of the development be assessed and appropriately addressed:
 - i) That stockpile storage within any building and/or open yard storage on the allotment be limited in size and volume and arranged to minimise the likelihood of fire spread.
 - ii) That the arrangement of stockpiles of combustible material, stored externally, on the allotment be sufficiently separated to permit Fire & Rescue NSW (FRNSW) vehicle access between stockpiles.
 - iii) That the site is served by a fire hydrant system that has a minimum water supply capability appropriate to the site's largest stockpile's fire load.
 - iv) That significant buildings used to process recyclable material are provided with a smoke hazard management system that facilitates Fire & Rescue NSW (FRNSW) firefighting operations.
 - v) If deemed necessary, by virtue of applying Clauses E1.10 and E2.3 to the development, that any significant building used to process recyclable material is provided with an appropriate automatic fire suppression system.
 - vi) That the site be provided with an effective means to contain an appropriate volume of contaminated fire water runoff. The capacity of containment to be commensurate with the concurrent discharge rate of the facility's hydraulic fire systems.

Should the recommended condition be imposed, please be assured that FRNSW will engage constructively with the proponent (and their consultants) to expeditiously address the matters raised above.

For further information please contact Mark Castelli of the Fire Safety Assessment Unit, referencing FRNSW file number BFS17/1443. Please ensure that all correspondence in relation to this matter is submitted electronically to firesafety@fire.nsw.gov.au.

Yours Sincerely

A handwritten signature in black ink, appearing to read 'Mark Reilly', with a long horizontal flourish extending to the right.

Superintendent Mark Reilly AFSM CMIFireE
Manager
Fire Safety Assessment Unit