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Contact: Senior Firefighter Lachlan Haar

12 October 2017

The Department of Planning & Environment
C/- Sheelagh Laguna
GPO Box 39
SYDNEY NSW 2001

sheelagh.laguna@planning.nsw.gov.au

Dear Ms Laguna

**Notice of Exhibition
St Marys Resource Recovery Facility
Lot 9 in DP 31908 Lot 149 in DP 1013185
21 and 25 Dunheved Circuit St Marys (SSD 8200)**

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

The facility's proposed location is within a FRNSW fire district with FRNSW have the statutory responsibility for extinguishing fire under Section 6 of the *Fire Brigades Act 1989*. In addition, the *Work Health and Safety Act* (WHS Act) classifies FRNSW as an entity conducting a business or undertaking (PCBU) with Clauses 34 and 35 of the WHS regulation imposing specific obligations upon a PCBU to identify hazards and manage risks at workplaces.

Our comments and recommendations are detailed below. Please note, while our comments in relation to the development are based upon review of the available information, our comments are primarily general comments as applicable to the resource recovery industry in general. It is FRNSW experience that where our recommendations are adopted by the consent authority there is usually a need for subsequent meetings with the proponent and their design team. Such meetings facilitate further assessment of detailed design and modification of the proposed design if considered appropriate and necessary.



Overview

Due to the processes undertaken at recycling facilities, it is FRNSW experience that the frequency of 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 its potential fire magnitude,
- The life safety risk to firefighters and employees,
- The environmental risks to the local and surrounding areas, and
- The level of structural damage to these facilities.

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

Recent recycling industry fire incidents have resulted in several large fires that have necessitated the deployment of large numbers of FRNSW resources. To ensure safe resolution of these FRNSW personnel 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 occurrence or have arisen during the course of 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 restricted 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 adequately facilitate 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 Clause E1.10 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. Consequently, it is FRNSW opinion that the lack of prescriptive guidance is intended to ensure that in

each instance where Clause E1.10 is 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 1 of the NCC'.

It is also FRNSW opinion that where Clause E1.10 of the NCC is 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 sufficient 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 Clause E1.10 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 compliance with Clause E1.10 of Volume One of the 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 the 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 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 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 designed discharge rate of the facility's fire hydrant system.

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

For further information please contact Senior Firefighter Lachlan Haar of the Fire Safety Assessment Unit, referencing FRNSW file number BFS17/2218 (8000001520). 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 'C. Wheatley', with a large, stylized loop at the end.

Station Officer Cameron Wheatley
Acting Team Leader
Fire Safety Assessment Unit