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 Contact: Station Officer Graeme Turnbull

21 August 2018

The Department of Planning & Environment
 C/- Kate Masters
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Dear Ms Masters

**Exhibition of Modification Request
 Woodlawn Mechanical Biological Treatment Facility (MP 06-0239 MOD2)
 Crisps Creek Intermodal Facility (MP 10-0012MOD3)**

Fire and Rescue NSW (FRNSW) received correspondence from the NSW Department of Planning & Environment (DPE) on 24 July 2018 notifying us of the above modification applications.

Veolia Environmental Services (Australia) Pty Ltd (the Proponent) has submitted applications to modify the above projects (MP). Project Approval MP 06-0239 seeks approval to process up to 280,000 tonnes per annum (tpa) of waste (made up of 240,000 tpa of mixed waste and 40,000 tpa of garden waste). It is intended that the subject waste will be recycled at the Woodlawn Mechanical Biological Treatment facility (MBT). The processing of waste will produce compost and be used to rehabilitate the adjoining Woodlawn mine site. Project Approval 10-0012 permits 1.18 million tpa of waste to be transported by rail from Sydney to the Crisps Creek Intermodal Facility (IMF).

The modification application involves the construction and operation of a Resource Recovery Facility to process up to 50,000 tpa of residual general solid waste (non-putrescible) from the MBT to produce solid recovered fuel. The solid recovered fuel produced at the facility would not be used on site. It is proposed that the waste will be transported to the Crisps Creek IMF where it will then be transported by rail to Port Botany and utilised either locally or internationally. In order to facilitate the transfer of waste from Crisps Creek IMF to Sydney, an application to MP 10-0012 has been submitted.



Based upon our review of the available information, the essential fire safety measures previously recommended by FRNSW (see FRNSW correspondence dated 30 November 2017 to the Department) have not been addressed for the proposed modified Bioreactor site. Consequently, FRNSW have concerns in relation to the adequacy of the proposed facility's fire safety design. FRNSW considers that the duties and functions conferred upon the Commissioner of FRNSW (i.e. Sections 6, 10A and 11 of the Fire Brigades Act 1989) would be unable to be effectively and safely undertaken at the proposed facility as currently designed.

Recent recycling industry fire incidents have resulted in several large fires that required the deployment of large numbers of fire service resources. To ensure safe resolution of these incidents, fire service 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 waste 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 being insufficient for the fire load stored and processed 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 extended firefighting operations.
6. On-site provisions to contain contaminated fire water runoff are not usually in place.

Application of Clause E1.10 of 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 addressed and 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 E 2.3 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. This is because the effectiveness of any suitable additional provisions must be adequate to mitigate any special problems of firefighting that are identified.

Fire service agencies are aware of their operational capabilities and limitations and have substantial experience in relation to problems that are unique to and associated with waste and 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 conditions form part of the instrument of consent:

1. 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:
 - a. 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.
 - b. That the arrangement of stockpiles of combustible material, stored externally, on the allotment be sufficiently separated to permit fire service vehicle access between stockpiles.
 - c. 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.
 - d. That significant buildings used to process waste material are provided with a smoke hazard management system that facilitates extended firefighting operations.
 - e. If deemed necessary, by virtue of applying Clauses E1.10 and E2.3 to the development, that any significant building used to process waste material is provided with an appropriate automatic fire suppression system.
 - f. That the site be provided with an effective means to contain 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 the Infrastructure Liaison Unit, referencing FRNSW file number BFS18/1994 (8000004182). 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 'M. Castelli', with a small dot at the end.

Station Officer Mark Castelli
Team Leader
Fire Safety Command Liaison Unit