Future City.G.Mansfield.
Reference: 4113758
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11 March 2013

The City of Newcastle

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Mr Chris Ritchie
Manager-Industry
Mining & Industry Projects
Major Projects Assessment
Department of Planning and Infrastructure
GPO Box 39
SYDNEY NSW 2001

Dear Mr Ritchie

CRAWFORDS AMMONIUM NITRATE STORAGE AND DISTRIBUTION FACILITY, 158 OLD MAITLAND ROAD, SANDGATE (SSD-5119)

I refer to the Department's letter of 30 January, 2013 inviting Council to comment on the Environmental Impact Statement (EIS) prepared by Environmental Resources Management Australia in support of the above development application.

Council officers have examined the EIS and the following comments are submitted for consideration by the Department in the assessment of the application:

1. Hazard and Risk Assessment

The proposed storage quantities stated in the Hazard Analysis (HA) prepared by Health & Safety Essentials differ from those indicated in the EIS (and in other supporting reports).

EIS
- Shed A -4,500t
- Shed B -3,500t and 1,000t in Shed B compound
- Shed C- 3,500t and 1,000t in Shed C compound

HA
- Shed A -4,500t
- Shed B- 4,500t
- Shed C- 4,000t and 500t in Shed C compound

As a result of the above discrepancies the incident scenarios in the HA are based on loaded shipping containers being stored only in the compound of Shed C. It is noted that the compound of shed B is located immediately northeast of the Newcastle Golf Practice Centre which is located on part of the adjacent Council Astra Street landfill site. This is particularly relevant given the HA already acknowledges that in relation to the above golf driving range the proposed development does not comply with the quantitative criteria for 'sporting complexes and active open space areas' specified

in the Department of Planning publication 'Hazardous Industry Planning Advisory Paper (HIPAP) No 4 –Risk Criteria for Land Use Safety Planning

Given the above circumstances, it is requested that the applicant be required to submit an amended HA, based on the correct storage quantities that demonstrates, as required by the Director General's requirements for the Preliminary Hazard Analysis, that the proposal will comply with the criteria set out in HIPAP No 4.

2. Flooding/Release of ammonia

The subject site is subject to flooding from the Hunter River. A principal concern is the potential release of ammonia nitrate from the site under flood conditions.

It is noted that flooding and receiving water quality modelling has been undertaken by BMT WBM P/L of two scenarios to identify the likely routes and ultimate fate of ammonia released from the three storage sheds on the site. According to the assessment report, during the 100 year (1% AEP flood) the site will suffer inundation by up to 1.8 metres.

The report concludes that:

> '*Under each scenario, AN release from Sheds A, B and C would result in ammonia concentrations in the local area well in excess of the relevant toxicity trigger value provided by the ANZECC guidelines. In all scenarios, this area of TTV exceedance extended from a minimum of approximately 2,200 metres downstream of the sheds to a maximum extent beyond the mouth of the Hunter River, some 14 kilometres from the site.*
>
> *Ammonia is highly toxic to a wide range of aquatic fauna (ANZECC), and if it were to be released from the sheds as per the scenarios simulated, the consequences for downstream ecosystems are likely to be significant. '*

The following specific comments are offered in respect of this report:

- The modelling was undertaken based on a 1% AEP flood level of 3.5metres Australian Height datum (AHD); Council's records indicate a flood level of 3.78m AHD. Therefore, the impacts may be greater than modelled.
- The modelling scenarios simulated 1% of the maximum stored Ammonium Nitrate (AN) in each shed being dissolved and released during the 1% AEP design flood. It is not clear from the submitted report and EIS what evidence was relied on to validate using the above percentage of the AN stored on the site. It being noted that the bags (i.e. flexible intermediate bulk container) used to store and transport the AN are only water resistant and likely to be immersed in floodwaters for a prolong period of time.
- The modelling does not address the potential for loaded or partially loaded shipping containers to float from the site.

According to the EIS, as a flood emergency response it is proposed to retrofit precast concrete doors to a height of three metre to the two openings at the front of sheds A & B. In addition, following notification from the emergency services of a 50 year (2%) or above flood event, other flood mitigation measures including encasing the store

perimeters with a polythene construction membrane and constructing sandbagged dams adjacent to each vehicular access door will be carried out.

It is noted that the EIS does not contain any confirmation from BMT WBM that the proposed retrofitting works to the storage sheds and the flood mitigation measures will be adequate. Furthermore, it has not been demonstrated that during the minimum notification period of 18 hours for significant flood events sufficient time and trained staff will be available to undertake the proposed flood measures prior to evacuation of the site. Bearing in mind the extreme weather conditions, including high winds, likely to be occurring at the time.

Given the above circumstances, it is recommended that all ammonium nitrate be stored on site above the flood planning level of 4.3m AHD. This would necessitate modifications to the proposal.

3. Air Quality Impacts

The development involves a scheduled activity under the provisions of the *Protection of the Environment Operations (POEO) Act 1997* (chemical storage) and will therefore require an Environment Protection Licence to be issued by the Environment Protection Authority (EPA). The EPA will be the Appropriate Regulatory Authority for all activities carried out on the premises for which the licence applies. Council will defer to the EPA to provide the detailed technical assessment of the proposal, given their far greater expertise and resources and ultimate responsibility as the ARA.

Council's review of this aspect of the proposal is limited to identifying and providing comment on any obvious general issues, areas where local government records and experience may provide particular insight, or where there is a specific local government responsibility.

In this regard, concern is raised regarding the potential increase in air quality impacts from dust generated by the proposed onsite operations. The two main areas of concern are the handling of ammonium nitrate and the movement of heavy vehicles onsite.

The current ammonium nitrate handling practices observed by Council officers generate a fine dust during the bulk loading of trucks. Council have been in receipt of air pollution complaints and community concern from the current onsite operations and recommend further mitigation measures or management practices be put in place to reduce particulate air emissions.

The generation of dust from the movement of heavy vehicles onsite is also an area of concern. The site is not currently sealed and truck movements have been observed by Council officers to create significant levels of airborne dust. The proposed controls outlined in the EIS are not considered to be permanent solutions to reduce dust emissions. The addition of large aggregate stones will become compacted or deteriorated over time with heavy vehicle movement and the previous dust issue is likely to return. It is recommended that the site be adequately sealed to reduce dust from vehicle movement on site. Appropriate sealing of the site will also assist in controlling any sediment runoff during periods of wet weather.

4. Traffic

The traffic consultant analysis of the performance of surrounding road network confirms operation within acceptable limits. Furthermore, it is understood Roads and Maritime Services has reviewed the application and support the proposal.

The operation of the traffic signals at the intersection of Old Maitland Road and Pacific Highway pre and post development has been analysed using SIDRA modelling. This analysis confirms that the signals will continue to operate at an acceptable level of service post development.

The proposal comprises the use of rail for the delivery of ammonium nitrate to the site from Sydney and thereby reduces road generated traffic despite the proposed increase in storage capacity from 200 tonnes to 13500 tonnes

Under section 7.03 –'Traffic, Parking and Access' of the Newcastle Development Control Plan (DCP), 2012, on site parking is required at 1 space per 2 staff. The existing parking provision of 61 spaces more than satisfies the requirements for parking in accordance with Council's DCP 2012.

A secure enclosure for the storage of a minimum of 3 bicycles (Class 2) is required in accordance with Council's DCP 2012.

I trust these comments are of assistance to you in your assessment of this application. If you have any questions regarding the matters raised in this letter please contact me on 49742767.

Yours faithfully

G. Mansfield

Geof Mansfield
PRINCIPAL PLANNER (DEVELOPMENT)