



DOC19/247841, EF13/2740

Newcastle City Council
ABN 25 242 068 129
Via e-mail at: mail@ncc.nsw.gov.au

Attention: Amanda Gale

27 March 2019

Dear Mrs Gale

EPA Consideration of DA2017/01338 Wickham Woolstore Air Quality Report

Reference is made to DA2017/01338 that relates to the concept proposal for converting the former Wickham Woolstore buildings into mostly residential apartments (the Residential Apartment Proposal) located on industrially zoned land next to an active fuel terminal.

On 2 February 2018, the Environment Protection Authority (EPA) provided to Newcastle City Council (Council) the letter titled "EPA Submission – DA2017/01338 Wickham Woolstore Development Application". The letter detailed the EPA's concerns with the Residential Apartment Proposal relating to potential land-use conflict, specifically potential air pollution and odour impacts from the existing fuel terminal on future residents.

On 3 December 2018, the EPA received from Council a request to consider the report titled "Air Quality Impact Assessment – Caltex, Wickham Facility" dated 25 September 2018 (the Air Modelling Report), submitted to Council by the applicant but prepared by AECOM on behalf of Caltex Australia Petroleum Pty Ltd.

The EPA has considered the Air Modelling Report through the completion of a 'high-level' review of its contents as it relates to the Residential Apartment Proposal. The Air Modelling Report predicts compliance with the EPA's impact assessment criteria for benzene, under all scenarios assessed. The review, however, identified omissions and significant uncertainties in the predicted impacts, as summarised below:

- a) The Air Modelling Report did not undertake any assessment of potential odour impacts on the Residential Apartment Proposal. The EPA considers this a significant omission given our concerns regarding odour, as raised in our 2 February 2018 letter.
- b) The GRAL model used was developed for the assessment of transport infrastructure and is not routinely used for assessment of emissions from stationary industrial sources. Detailed model validation for this type of application has not been provided.
- c) It is not clear in the Air Modelling Report how the application of the GRAL model, particularly meteorological data, complies with the requirements of the EPA's *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW*, including how it complies with the framework for calculation of 99.9 percentile concentration results.

- d) Typically, air quality modelling assessments in NSW use 1 year of sequential hourly meteorological observations (8760 hours). The assessment used 861 meteorological variables (assessment Table 13, page A-5).
- e) The EPA understands the Vapour Recovery Unit (VRU) is the main source of emissions from the Caltex site. The Air Modelling Report adopted an emission concentration of 5.94 milligrams per litre (mg/L) from the VRU, which is approximately half the environment protection licence limit of 10 mg/L. As such, potential off-site pollutant concentrations could have been under predicted.

The EPA advise Council that there is significant uncertainty and omissions in the Air Modelling Report.

Appropriate land-use zoning and approvals avoid land-use conflict.

The licence for the Caltex facility limits, but does not result in zero emission of pollutants. Emissions from fuel terminals can be highly odorous and offensive to many people.

There are limited additional air and odour emission control options available for future implementation at the Caltex premises.

Land-use conflict caused by poor planning decisions has, in other situations, resulted in amenity issues for residents and ultimately affected the viability of long-term industrial activities.

The EPA notes the Wickham Woolstore site is zoned "IN2-Light Industrial", which has an objective to provide a wide range of light industrial, warehouse and related land-uses. Allowing in excess of 300 residential apartments on land zoned as Industrial would appear incompatible. Locating additional residences in close proximity to an existing (petrochemical) industrial premises will increase the risk of exposure by residents to odorous emissions and air toxics.

Council is the consent authority for this development application. Should Council be minded to approve such a proposal, given the zoning of the land, the EPA thinks it would be prudent that a relevant notation be included on section 10.7(2) Planning Certificates of every proposed residential apartment warning that the property may be subject to odorous hydrocarbon emissions.

Notwithstanding the omissions and uncertainties in the air quality assessment, the EPA considers that refinement of the Air Modelling Report is unlikely to materially change the EPA's position on the application, being that the Residential Apartment Proposal represents a potential land-use conflict that will increase the risk of exposure of residents to odorous emissions and air toxics.

If you have any questions about this matter, please contact me on (02) 4908 6818 or by email to hunter.region@epa.nsw.gov.au.

Yours sincerely


PETER JAMIESON
Head Regional Operations Unit – Hunter
Environment Protection Authority