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NSW GOVERNMENT Health
South Western Sydney Local Health District

Mr Andrew Beattie
Contact Officer
Infrastructure Projects
NSW Department of Planning & Environment
Via email: andrew.beattie@planning.nsw.gov.au

Dear Mr Beattie

Re: Exhibition of Environmental Impact Statement (EIS) for the Moorebank Intermodal on Commonwealth Land Moorebank Avenue, Liverpool

Thank you for your correspondence of 3 October 2014, to the South Western Sydney Local Health District (SWSLHD) advising of the above EIS is on exhibition and inviting comments.

The Secretary's Environmental Assessment Requirements (2 September 2014) seem comprehensive and the key issues identified are appropriate. The required inclusions for the EIS are supported, and in particular the conduct of a Health Impact Assessment with a local and regional focus, and consideration of the cumulative impacts of this proposal with the adjacent Sydney Intermodal Terminal Alliance (SIMTA) proposal. The quantification of the health effects of additional air pollution due to the development seems reasonable.

The previous Human Health Risks and Impacts study which was undertaken was appropriately scoped with a focus on impacts related to traffic, transport and access, noise, and air quality. As noted in Chapter 25 of EIS (Human Risks and Impacts) noise has the potential to interfere with sleep and chronic noise exposure may increase the incidence of cardiovascular disease. The siting of the intermodal terminal is proximate to residences and the risk of noise impacts is substantial.

Our specific comments below principally concern air pollution and noise.

Air pollution assessment

Emissions from combustion engines are an acknowledged health hazard. During construction and operation of the intermodal terminal there will be emissions from diesel heavy vehicles, cars, engines onsite, and diesel freight engines. When fully operational there will be 273 IMEX train movements per week, 24 interstate train movements per week and 8,160 heavy truck movements per day (EIS summary). Vehicle and other engine emissions typically disperse over a restricted range of up to 500 metres (i.e. a gradient in most emissions can generally be found over this range before merging with background levels). Residential housing is proximate to the intermodal terminal site and health effects are plausible.

The basic framework for the EIS assessment of the additional impact of air emissions appears sound. Baseline measurements of background air quality were taken and using assumptions about vehicle movements and engine emissions, total air emissions of relevant pollutants were calculated and the effect on residents or other receiver sites were estimated using a dispersion model.

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The basic findings of the air quality assessment are that the heavy vehicles, diesel locomotives, switch engines and onsite machinery all contribute to emissions and in the case of particulate emissions these sources contribute roughly equally, and that the incremental increase in air pollutants of concern is small. All the receiver points except one are estimated to comply with air standards. The receiver no. 33 failed on various criteria. For example, under scenario C3 site 33 will experience an incremental annual average increase in $PM_{2.5}$ of 1.2 µg /m^3 and a cumulative increase to 8.5 µg /m^3 which is above the National Environment Protection Measure (NEPM) advisory standard of 8.0 µg /m^3. Receiver no. 33 is a defense site proximate to Moorebank Avenue and is identified as future commercial land use (likely part of the SIMTA site). These exceedances may be acceptable with that type of land use as it is not a residential receiver. Other residential receivers do not experience the same incremental increase and the modelling suggests they will not be exposed to emissions above the NEPM standard.

However, there are a number of caveats to this assessment. Background levels of pollutants are generally high and already are close to NEPM standards. In the Local Air Quality Assessment in Volume 6 the input assumptions of, for example, heavy vehicle movements into the air model contain some small discrepancies between these and other estimates in the EIS. It is noted that the assessment strictly includes only vehicles movements on-site and has not taken into account vehicle movements off-site that will be using the terminal. Truck and vehicle movements along Moorebank Avenue and the M5 motorway that will be using the terminal should probably be included as the impact of these extra vehicle movements may be significant and may impact on residents that are in close proximity to these roadways and already experience poor air quality.

It is difficult to find within the EIS air modelling data and estimated impacts for individual receiver sites. The presentation of this data more clearly would assist.

The Local Air Quality Assessment in Volume 6 includes cumulative impacts for both the SIMTA and the intermodal terminal sites and these predictably lead to poorer air quality although the incremental increase of, for example, $PM_{2.5}$ is again modest – around 2 µg /m^3. The maximum cumulative 24-hour average PM_{10} and $PM_{2.5}$ concentrations at receiver 33 exceed the NSW Environment Protection Authority (EPA) criteria and NEPM advisory reporting goal. The EIS flags transport refrigeration units (TRU) for the project at this stage to be minor for air pollution but that the specific requirements are unknown. TRUs need to operate 24 hours a day due to the nature of the perishable goods they contain. If power to these units is from a diesel generator then the potential impacts could be greater should large numbers be transported or stored.

Mitigation options are discussed and generally we support the full exploration of all feasible and reasonable options. These include: various emission improvement initiatives including all on road trucks complying with Euro V emission standards, all new off-road construction equipment meeting US EPA Tier 3 emission standards for non-road diesel engines, and the use of hybrid locomotives and hybrid vehicles. We also support the development of an air quality management plan, and the continuation of the existing project air monitoring after the start of operations to ensure that the ambient air quality criteria are met.

Noise assessment

The basic framework of the noise assessment including the selection of residential receivers, determining background noise levels, and defining project specific noise goals all appear appropriate and consistent with NSW EPA guidance documents. We note, however, that

there are several guideline documents referred to including the construction noise guideline, the Industrial Noise Policy, the Rail Infrastructure Noise Guideline and the Road Noise Policy. Although these may be the relevant documents they adopt different limits and there is scope for confusion and inadequate accounting for cumulative noise impacts from different sources (the intermodal terminal site site, rail and road access). The inputs into the predicted noise levels were not reviewed. Our comments are restricted to the predicted noise levels with a focus on operational noise and in particular the full build scenario from 2030. We also comment on sleep.

Under the full build scenario operational noise (from the site) would exceed noise goals at Casula under all three rail access options by up to 13 dB (A) (night-time, central rail access, 51 dB (A)). Full build rail operational noise from the connection to the Southern Sydney Freight Line also exceeds the Rail Infrastructure Noise Guideline by up to 17 dB (A) (night-time northern rail access option 57 dB (A)).

The application notes for the Industrial Noise Policy provide a guide of a 15 dB (1 minute) exceedance of background as a screening tool to trigger more detailed assessment for possible sleep disturbance. The proponents model the effect on receivers of a single event (container handling) of sound power 120 db(A) L_{Amax}. The noise at receivers is just on the screening threshold and a more detailed analysis of sleep disturbance is not made. However, it is also noted (Ch. 12-35) that the predicted noise event levels from the rail access connection are likely to be above the maximum levels (80 dB A) set out in the Rail Infrastructure Noise Guideline. Evidence suggests the probability of sleep disturbance is related to the frequency and loudness of noise events. Given that there are multiple sources of these events from both rail and the intermodal terminal, the effect on sleep disturbance for the nearest residential receivers does not seem to have been fully assessed.

The discussion of mitigation measures appears appropriate although general. A full range of source, transmission and possibly receiver mitigation measures may need to be employed to achieve both a reduction in average noise levels and frequency of high noise events especially at night to protect residential areas especially in Casula. Specific mitigation measures may need to be negotiated and made a requirement of consent. An operational noise and vibration management plan should also be required to ensure that predicted mitigation effects are realised.

In addition, it is also suggested that any further Health Impact Assessment could include consideration of creation of employment opportunities, with a particular focus on opportunities for local employment.

Thank you for considering these comments. Should you require further clarification please contact Peter Sainsbury, Director, Population Health, SWSLHD on 9828 5718 or peter.sainsbury@sswahs.nsw.gov.au .

Regards

Amanda Larkin
Chief Executive

Date: 7/1/15