



Mr Chris Ritchie
Director
Industry Assessments
Department of Planning and Environment
GPO Box 39
SYDNEY NSW 2001

Attention: Sally Munk, Principal Environment Planner
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Dear Mr Ritchie

Eastern Creek Energy from Waste Facility (SSD 6236)

I write in response to your correspondence of 7 December 2016 to Mr Danny O'Connor, Chief Executive, Western Sydney Local Health District (WSLHD) concerning the Eastern Creek Energy from Waste Facility (SSD 6236). Mr O'Connor has asked that I respond on his behalf.

Thank you for providing WSLHD the opportunity to comment on the proposal.

We have undertaken a review of the proposal at two levels - firstly a strategic review followed by an internal technical review of the potential impacts and risks that environmental emissions from the facility might have on population health. The key findings from these two levels of review are outlined below.

Strategic review

We have assessed the potential impact (both positive and negative) that the energy from waste facility might have on the day-to-day operations of WSLHD facilities and its fit with the broader vision for the West Central District of Greater Sydney.

The conclusion from this review is that the proposal would have limited impact on WSLHD facilities and had the potential to make a positive contribution to a number of priorities and actions outlined in the Greater Sydney Commission Draft West Central District Plan.

In undertaking this review, we have relied on the information provided by Urbis in the amended EIS and the key points from our review are summarised below:

- The energy from the waste facility is located approximately 5km south of Mount Druitt Hospital on the other side of the M4.

- The project objectives include reducing landfill and delivering a net positive greenhouse gas effect.
- The project will generate 500 direct construction jobs and provide 55 new operational jobs.
- In terms of traffic that might affect WSLHD health facilities, Mount Druitt Hospital is not located on the arterial or sub-arterial roads identified to service the facility and approximately half of the waste feeding the facility will be diverted from the existing Genesis landfill. The traffic increase is assessed by Urbis to be moderate and unlikely to significantly impact the traffic capacity in the wider area.
- The project includes a high specification for mitigating environmental emissions, including applying Best Available Technology for flue gas treatment etc.
- Whilst helicopter operations are not specifically addressed in the airspace operations assessment, the distance from the Mount Druitt Hospital site, high tech flue gas treatment and other controls proposed by Urbis, means that it is unlikely to have an adverse effect on future helicopter operations associated with WSLHD facilities.

Health Risk Assessment review

The project has been assessed by Urbis as representing a low risk to human health and includes Best Available Technology for flue gas treatment.

The WSLHD Centre for Population Health, in consultation with the NSW Environment Protection Authority and the NSW Ministry for Health has reviewed the amended Human Health Risk Assessment and remain concerned about the potential for health risks of this plant. These current concerns are outlined in Attachment 1.

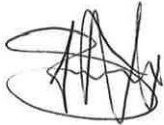
There are three issues of particular note:

- The proposal to build and operate an incinerator within city limits is not consistent with over 100 years of environmental regulation to improve urban air quality by removing incinerators and power stations and other sources of pollutants from urban areas. We note that this plant is double the size of similar plants overseas and we require assurance that appropriate environmental controls are in place and effective in the long term.
- With respect to the calculation of final ground level concentrations, we note that the same stack parameters and the same in-stack concentrations are used as in the previous risk assessment, and yet there is a 10 fold decrease in the calculated ground level concentrations. An explanation of the difference in the final ground level concentrations should be provided.
- The impacts on air quality of a very different feedstock on for this incinerator compared to similar facilities elsewhere are not addressed. The feedstock for this incinerator will have large amounts of building waste and car flock in addition to putrescible waste. Similar incinerators in the UK and Europe have a very different feedstock due to better recycling efficiencies.

Therefore, from a population health perspective, we are unable to support the proposal in its current form and would like further information as noted in the attached paper to satisfy the LHD that this proposal does not have a negative impact on human health.

If you wish discuss any point raised above please do not hesitate to contact me on 02 8890 8793 or via email at Leena.Singh1@health.nsw.gov.au.

Yours sincerely

A handwritten signature in black ink, appearing to be 'Leena Singh', written over a faint circular stamp or watermark.

Leena Singh

Director Strategic Business Development & Commercial Services

Date: 17 March 2017

Attachment 1: WSLHD Centre for Population Health - commentary on potential health impacts of the Next Generation NSW Pty Ltd Energy from Waste Facility, Eastern Creek

Introduction

Next Generation NSW Pty Ltd is intending to construct an Energy from Waste (EFW) Electricity Generation Plant in Eastern Creek. The site sits within Western Sydney Local Health District area close to the borders with Nepean Blue Mountains and South Western Sydney Local Health Districts.

The scale of this proposed facility, its proximity to residential areas, and placement within the metropolitan area, requires that potential impacts of emissions from this plant on human health be closely scrutinised.

We are mindful that current zoning in the area includes low density residential, employment zones and areas that are currently used for outdoor recreation e.g. Western Sydney Parklands. Considerations regarding the approval of this proposal should be assessed against future planning and development for the wider area surrounding Eastern Creek, not just neighbouring properties, and its potential ongoing impact to an increasing population either living, working or playing in this area.

The Facility

This facility will be the first large scale waste to energy facility in Sydney. It is in proximity to a number of residential populated areas, outdoor recreational facilities and employment zones. The proposed volume of waste to be used as feedstock is approximately 1.105 million tonnes annually.

It is understood that the plant to be built in Eastern Creek is considerably larger than a similar operational plant in the United Kingdom.

Modelled Emissions from the Facility

The mix of emissions from a waste incinerator such as this will depend both on operational parameters and the nature of the feedstock. There are likely to be important differences in the feedstock used by the reference plant in the UK to that which will be used at Eastern Creek.

It is understood that the use of reference levels for the chemicals of concern based on the UK/European experience is necessary to model the estimated in-stack and ground level concentration as more meaningful reference levels are not available.

The proponent acknowledges that the impact that these differences will make to the emissions locally cannot be explained as they were not able to describe the content of feedstock which resulted in the reference levels used. The proponent acknowledges however that it is unlikely that the UK plant would have used as much building and construction waste (50% of feedstock) likely to be incinerated at the proposed Eastern Creek plant.

The Ozone Impact Assessment continues to show the maximum predicted increase in ozone concentration to be greater than the NSW EPA threshold value of 1ppb as set out in the NSW EPA 'Tiered procedure for Estimating Ground Level Ozone impacts from stationary sources'.

Although the proponent provides evidence that they are using best available technology to control NOx levels, any increase in ozone levels has the potential to impact on the health of the community. Ozone can travel long distances and accumulate to high concentrations far away from the sources of the original pollutants. Ground level ozone can be harmful to our health even at low levels.

When comparing the results of ground level concentration calculations in the Air Quality Assessment it is noted that although the same stack parameters and the same in-stack concentrations are used as in the previous risk assessment, there is a 10 fold decrease in the calculated ground level concentrations. See Appendix C (2015) and Appendix G (2016). An explanation of the difference in the final ground level concentrations should be provided.

Management of Feedstock Inputs

The amended Environmental Impact Statement states that construction and demolition (C&D) waste is expected to represent almost 50% of the feedstock, comprising construction and demolition processing residual obtained from authorized construction and demolition processing facilities. Another significant proportion of the feedstock will be car floc (shredded car bodies) at 15%.

Robust mechanisms (including multiple barriers) need to be in place to ensure asbestos containing materials and CCA timbers which can be comingled with C&D waste and difficult to detect, are not inadvertently transferred to the mixed waste feed hopper of the facility for incineration, should the facility be approved.

Health Risk Assessment

As it cannot be assumed that the modelled levels for the chemicals of concern will be similar to the actual in stack and calculated ground level concentrations it is not possible to adequately assess the impacts of the proposed development on the health of the community.

Ozone

If correct the predicted ozone levels of above 1ppb are of concern as any increase in ground level ozone levels is likely to impact on the health of the community.

Particulates

Although it is noted that the modelled increment of particulate matter (PM10 and PM2.5) over both 24 hour and annual averaging period are assessed as low the background levels for this area are high. As such any increase in emissions of particulates should be avoided.

There are many known health effects from exposure to particulate matter. Numerous studies have showed associations between exposure to particles and increased hospital admissions as well as death from heart or lung diseases. Despite extensive epidemiological research, there is currently no evidence of a threshold below which exposure to particulate matter does not cause any health effects and health effects can occur after both short and long-term exposure to particulate matter.

Dioxins/furans

Dioxins do not break down easily in the environment and their concentration increases up the food chain so any increase in emissions are of concern. It is particularly important that the potential generation of dioxins and furans is assessed on the basis of the likely feedstock to the proposed incinerator.

Conclusion

As the Western Sydney Local Health District is unable to fully determine the proposed facility's actual or potential impact on human health the proposal cannot be supported.