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20 FEB 2014

Your Ref: Hazelmere WtE Plant
Our Ref: EHB14/280
Contact: Mirella Goetzmann
Phone: 9388 4919

Mr Peter Schneider
Chief Executive Officer
Eastern Metropolitan Regional Council
PO Box 234
BELMONT WA 6984

Attention: Stephen Fitzpatrick Director Waste Services

Dear Mr Schneider

HAZELMERE PYROLYSIS WASTE TO ENERGY PLANT

Thank you for your correspondence dated 7 February 2014 requesting comment from the Department of Health (DOH) on the above proposal.

The DOH provides the following comment:

Public Health Impacts

All the emissions data provided have been assessed. The cumulative emissions data which considers background emissions is the most appropriate to compare against health based guidelines.

The background emission data came from the Red Hill facility assessment documents which DOH records as being assessed in 2012. DOH is not able to assess whether this data is appropriate (or not) for the current facility. This is a role for DER as they have current industry emission information; hence DOH comments are provided on the basis that the model characteristics and parameters satisfy DER modelling requirements.

- The predicted ground level concentrations for the pollutants in the emission inventory comfortably meet the health based guidelines. This means that none of the predicted levels are more than 60% (conservatively) of the health guidelines for all scenarios and most are well below this percentage. DOH has used our recently updated health based guidelines for As, Cr III & Hg (now more conservative) as a basis for comparison.
- The modelling concentrations are clearly predictions and importantly, must be verified. The EPA recommendation 10 (p45) covers stack monitoring, however this data is not appropriate to determine exposure and consequently, should DOH be required to respond to queries about emissions from the facility in the future, DOH requires ground level concentrations for critical emissions, for example carcinogens, irritants (acid gases), particulate matter

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(PM10/2.5) depending on the concern. DOH does not accept modelling predictions or compliant stack emission criteria as proof of complying with ambient air criteria. This holds for any facility with air emissions and is not limited to waste-to-energy facilities. EMRC may wish to consider some form of GLC monitoring after commissioning.

The assessment has also identified some areas of weakness in the works approval document –

- p 19 (5.2.3) *Particulates from the stack are not in excess of NEPM limits (see Section 5.3.6); therefore, particulates are not expected to be an issue* – Stack emissions are not assessed against NEPM as this statement implies. Rather the author may have intended that - the NEPM is not expected to be exceeded beyond the facility boundary.
- P 19(5.2.4) states that dust will not cross the boundary. The author may be referring to visible dust.
- Reference to cumulative modelling in the works approval may be misconstrued as referring to the modelling undertaken by the consultant engaged to undertake the modelling. Rather, the cumulative aspect was considered independently.

Overall the works approval information and predicted modelling meets DOH air emission guidelines.

Please contact Senior Toxicologist Mirella Goetzmann should you have further enquiries on 9388 4919 or mirella.goetzmann@health.wa.gov.au

Yours sincerely



Jim Dodds
DIRECTOR
ENVIRONMENTAL HEALTH DIRECTORATE

14 February 2014