



DOC19/487894-12

Mr Patrick Copas  
Senior Environmental Assessment Officer  
Industry Assessments  
Level 29, 320 Pitt Street  
SYDNEY NSW 2000  
  
Email: Patrick.Copas@planning.nsw.gov.au

Dear Mr Copas

**Request for comment on proposed Data Centre, Roberts Road, Prospect, NSW (SSD-10330)**

I refer to the Department of Planning, Industry and Environment's email on the 3 December 2019 requesting the NSW Environment Protection Authority's (EPA) comments on an Environmental Impact Statement (EIS) for the Roberts Road Data Centre (SSD-10330).

**Proposed development**

The EPA understands that the application seeks consent for:

- Site preparation works including construction works; and
- Staged construction of buildings for a data centre with 24hour/day, seven day/week operation which includes the construction of 12 diesel generator enclosures. Each enclosure will include 3 generators.

According to the EIS, a complying development certificate (Certificate No 5809/3) was granted for the installation of 12 generators. The EPA did not have any input into this complying development certificate. Based on EPA's understanding of the EIS documents, these additional 48 generators will compliment existing generators that are attached to an existing Data Hall, located off Roberts Road. The EPA understands that the proposed data centre and the existing data hall will be operated by the same entity.

**Licensing Requirements**

Electricity Generation

The EPA requests further information about the emergency power generators including:

- a. individual capacity (in terms of megawatts and megajoules per second);
- b. testing procedure, frequency and duration;
- c. confirmation that testing will be carried out individually or in clusters;
- d. justification of the need to test during the evening or at night; and
- e. maximum operating time in an emergency situation.

The EPA understands that the proposal will include the installation of diesel powered generators for emergency power purposes. Clause 17 in Schedule 1 of the Protection of the Environment Operations Act 1997 (POEO Act) states that electricity generation is a scheduled activity if it:

**Phone** 131 555  
**Phone** 02 9995 5555  
(from outside NSW)

**Fax** 02 9995 6900  
**TTY** 133 677, then  
ask for 131 155

PO Box 668  
PARRAMATTA  
NSW 2124

Level 13  
10 Valentine Avenue  
PARRAMATTA NSW  
2150 AUSTRALIA

**info@epa.nsw.gov.au**  
**www.epa.nsw.gov.au**  
**ABN 43 692 285 758**

- Uses an internal combustion engine; and
- Is situated in the metropolitan area (which includes Prospect);
- Has the capacity to burn more than 3 megajoules of fuel per second; and
- Has the capacity to generate more than 30 megawatts of electrical power.

The clause does not apply to the generation of electricity by means of plant that is operating for less than 200 hours per year. The EIS states (Pg 64) that period testing of the individual is expected to exceed 200 hours per year. Section 5.6 of the EIS states that the power demand of the proposal will be at least 157 MVA (~157 megawatts electrical). As such it is likely that the capacity of the generating engines (combined) proposed for installation would exceed the licencing threshold.

The EIS does not provide details on what the testing involves. Assuming that 'testing' requires the generators to operate at their full capacity, then there is potential for noise and air pollution impacts to go beyond what is intended to be captured by the exemption in clause 17(1A) of Schedule 1 of the POEO Act. Therefore, it is EPA's opinion that the proposed activity, based on the information provided, may require an environmental protection licence for electricity generation.

### Chemical Storage

The EPA requests clarification of whether the estimated diesel storage is for the proposed data centre or a combination of the current and new data centre.

The Dangerous Goods Design Review, produced by Lote Consulting (dated 16 November 2019, and included in Appendix AA of the EIS) states that the total quantity of diesel to be stored on-site is 1,188,000litres, or approximately 1,009 tonnes<sup>1</sup>. The EIS does not clarify if this volume is the total capacity of diesel to be stored in both the current and proposed data centre. If not, and the cumulative volume of diesel stored exceeds 2,000tonnes, the data centre would trigger Clause 9 in Schedule 1 of the POEO Act. Under Clause 9, an activity requires a licence if there is a capacity to store more than 2,000tonnes of petroleum products (which includes diesel).

### **Air Assessment**

The EPA requests a revised Air Quality Impact Assessment.

The EPA notes that an Air Quality Impact Assessment (AQIA) Report, prepared by SLR Consulting dated October 2019 for the proposal had been submitted to support the application. The EPA has reviewed the AQIA, and considers that this report does not provide sufficient information to make an informed assessment of the potential impacts of the proposed activity. The EPA recommends that the AQIA is revised to provide further information on:

- Generator specifications, electrical generation capacity and generator fuel rate to assess against the criteria for a scheduled activity;
- Assessment of emissions from the generators against the POEO (Clean Air) Regulation standards of concentration; and
- Assessment of offsite impacts from the operation of the proposed generators in strict accordance with the Approved Methods for the Modelling and Assessment of Air Pollutants in NSW.

Further detail on the above comments is provided in Attachment A.

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<sup>1</sup> Assuming 850kg/m<sup>3</sup> density at 15°C: <https://www.environment.gov.au/protection/fuel-quality/standards/diesel>

## Noise Assessment

The EPA requests that the Noise Impact Assessment include the assessment of noise from the generators under testing and emergency operations.

The EPA notes that a Noise Impact Assessment (NIA) Report, prepared by SLR Consulting dated 12 November 2019 for the proposed development has been submitted to support this application. Based on the review of the NIA, the EPA provides the following recommendations:

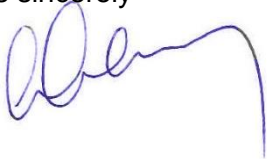
- Irrespective of the proposed being a scheduled activity under the POEO Act, the Noise Policy for Industry should be used to assess the generators operating under all circumstances (i.e. including testing);
- Testing of the generators should be limited to take place during daylight hours;
- Noise emissions should be limited at residential receivers to the 'Resulting PTNKs in Table 10 of the NIA under the standard adverse weather conditions.

The EPA considers that the mitigation measures detailed in Chapter 6.2.4 of the NIA could probably mitigate noise exceedances detected at Flavex Lane, if adopted.

Further detail on the above comments is provided in Attachment B.

If you have any questions regarding any matters of this letter, please contact James Boyle on (02) 9995 6128 or at james.boyle@epa.nsw.gov.au.

Yours sincerely



22/01/2020

**CRAIG FLEMMING**  
**A/Director – Sydney Industry**  
**Metropolitan Branch**  
**Environment Protection Authority**

## Attachment A: Air Quality Impact Assessment

The EPA notes that an Air Quality Impact Assessment (AQIA), prepared by SLR consulting dated October 2019 for the proposed development has been submitted to support this application. The EPA reviewed this report, in conjunction with the Environmental Impact Assessment report (EIA)<sup>2</sup>. Comments are provided below.

### The Air Quality Impact Assessment is not adequate for decision making purposes

The EIA states that in addition to the 27 approved generators, an additional 36 diesel generators will be housed in 12 enclosures with each enclosure containing 3 generators each. The AQIA states that as the generators would be required very infrequently and for a limited period of time, an assessment of the emissions and air quality impacts from the generators was not performed.

The EIA states that testing of the generators will occur with the total testing duration expected to exceed 200 hours per year. As discussed in the covering letter, the EPA considers that testing would also be considered operation, unless other evidence is provided that would support a contrary interpretation.

The EIA and AQIA do not provide detailed information about the proposed engines, fuel rate, emission controls or potential impact from the engine operation. The EPA recommends the proponent must provide additional detailed information as to the specifications of the generators used, the capacity of electrical generation system and its proposed operating regime.

### Regulation Limits

Based on the likely scheduled activity, the applicable POEO Clean Air Regulation emission limits are:

Air Impurity	Standard of concentration
Solid particles (total)	50 mg/m <sup>3</sup>
Nitrogen oxides (as NO <sub>2</sub> equivalent)	450 mg/m <sup>3</sup>
VOCs (as n-propane)	1140 mg/m <sup>3</sup> VOCs or 5880 mg/m <sup>3</sup> CO

The Clean Air Regulation limits are maximum allowable and more stringent limits may be included in the Environment Protection Licence based on the outcomes of an air quality impact assessment, including benchmarking the proposed plant and equipment against available control technology.

Should the proponent justify that an Environment Protection Licence is not required, the applicable regulation for emission limits is 100 mg/m<sup>3</sup> for solid particles. While there is no regulation for non-scheduled activities of nitrogen oxides (NO<sub>x</sub>) or other pollutants, the relevant planning consent authority may specify more stringent particle limits and limits for other pollutants including NO<sub>x</sub>.

The EPA therefore recommends that a revised AQIA must include assessment of emissions from the generators.

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<sup>2</sup> Environmental Impact Assessment, Data Centre at 17 Roberts Road, Eastern Creek, URBIS, 22 November 2019

## **Air Quality Impacts**

As the AQIA has not assessed air quality impacts from the operation of the facility, potential offsite impacts from generator emissions have not been evaluated.

The EIA has stated that three generators will be enclosed and that there will be 12 generator enclosures. These generators are in addition to the 27 already approved, giving a total of 63 generators onsite. The EIA and AQIA have not provided information on how emissions from the generators will be captured, controlled and/or exhausted from the generator enclosures.

The EPA advise that regardless whether an Environment Protection Licence is required, the facility is required to operate by such practicable means as may be necessary to prevent or minimise air pollution (POEO Act Section 128, Part 2).

The EPA recommends the revised AQIA must include an assessment of criteria pollutants in accordance with the *Approved Methods for the Modelling and Assessment of Air Pollutants in NSW*. The EPA also recommends that the proponent must include assessment scenarios that assess generator testing, realistic operations and a justified worst-case scenario.

**This concludes Attachment A**

## **Attachment B: Noise Impact Assessment**

The EPA notes that a Noise Impact Assessment (NIA), prepared by SLR consulting dated 12 November 2019 for the proposed development has been submitted to support this application. The EPA reviewed this report. Comments are provided below.

### **Generators should be included in the operational noise assessment**

Chapter 4.2.7 of the NIA states that because the generators will operate for less than 200 hours a year, which is below the threshold for a licence in the POEO Act, it is outside the requirements of the NSW EPA's *Noise Policy for Industry* (NPfI) to assess noise impacts from these sources. However, Section 1.4 of the NPfI does not limit its application only to scheduled premises/activities. The planning authorities set the assessment requirements. In this case, the Secretary's Environmental Assessment Requirements (SEARs) specified the NPfI and so therefore it should be used to assess the generators operating under all circumstances.

### **Testing recommended to be done during daylight hours**

A conservative assessment indicates that there could be exceedances of the Project Noise Trigger Levels (PNTLs) during emergency operation, however since it would be in a situation where there is a grid power outage (i.e. in an emergency and used temporarily) it is unlikely to result in adverse impacts and it may not be reasonable to recommend time specific conditions for emergency use of the generators. However, the EPA does recommend that the testing of the generators only take place during daytime hours.

### **Noise Mitigation measures and emission limits**

The EPA notes that the 5dB exceedance of the night time PTNL at Flavex Lane is not insignificant. However, the EPA believes it would likely be possible to mitigate these exceedances to be within the PNTLs as indicated in Chapter 6.2.4 of the NIA.

The EPA recommends that noise emissions, if placed on consent conditions, should be limited at residential receivers to the 'Resulting PNTLs' in Table 10 of the NIA under the standard adverse weather conditions (wind speeds up to 3m/s and stability classes A,B,C,D,E and F).

### **This concludes Attachment B**