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Dear Ros

## Site 10 - Proposed Emergency Generator and Fuel Storage

Please find below an engineering statement describing the Site 10 development provisions for a standby diesel generator set and its associated support systems as they relate to the development resource consent submission.

## **Generator Scope**

The Site 10 development design includes for the capability to add a circa 360 kW / 450 kVA standby rated generator set to support a proportion of the building load during periods when the mains power supply has failed. The preliminary scope for the complete generator and essential power system is outlined below.

- Provision of a new generator set within an acoustically rated enclosure.
- Provision of a dedicated ground floor plant room, into which the generator enclosure would be installed to achieve 45dBA at 7m.
- Provision of new generator 'essential' switchboard and cabling.
- New 1,000 litre bulk fuel tank, 4-hour fire rated, double skin tank with gravity feed fuel distribution to generator. This provides a minimum 8 hrs storage with the generator running at full load.

## Fuel storage

To comply with Hazardous Substances and Noxious Organisms (HSNO) regulations the fuel tanks will be provided with integral secondary containment and four hour fire rating. They will be located inside the generator room which will also be a "bunded" room. The fuel fill point will be located on the outside wall of the generator room, accessible from the loading bay with pipework running from the fill point to the bulk tank within the "bunded" generator room.

The fuel storage and transfer system will be installed and certified by a specialist contractor in full compliance with the HSNO Regulations. A HSNO certificate will be required to be provided by this contractor prior to completion of the work.

## **Engine Exhaust:**

The generator engine and its exhaust design / specifications will meet the Wellington Regional Council planning conditions for such equipment. We understand this to be defined under Rule 6 Small internal or external combustion engines, heating appliances and electrical generation plants of the Regional Air Quality Management Plan.

To meet these requirements we propose the following:

Engine specifications will require no discharge of particulates of a concentration greater than 250 mg/m (at STP), measured at the point of discharge;



- Engine exhaust discharge will be at high level on the ground floor (final location to be confirmed) which will be at least 3 metres above the adjacent ground level and designed to ensure the uninterrupted vertical discharge of vapours.

We trust this is suitable for your current purposes. Please let me know if you need anything further.

Yours faithfully

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