

IN THE MATTER of the Resource Management
Act 1991

AND

IN THE MATTER of applications for resource
consent by Site 10
Redevelopment Limited
Partnership and Wellington City
Council in respect of the area
known as Site 10

**STATEMENT OF EVIDENCE OF RAMON DERRICK WILSON
ON BEHALF OF SITE 10 REDEVELOPMENT LIMITED PARTNERSHIP AND WELLINGTON
CITY COUNCIL
3 JULY 2015**



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INTRODUCTION

1. My full name is Ramon Derrick Wilson.
2. I am an Associate Director and Practice Area Lead for Building Services at AECOM New Zealand Limited (“AECOM”). I am responsible for the leadership and performance of the Building Services team for AECOM’s New Zealand practice. Prior to working at AECOM, I was a senior associate at Norman Disney & Young until August 2012.
3. I hold a Bachelor of Technology (Engineering & Automation) and I am a Chartered Professional Engineer (CPEng) and a Member of the Institution of Professional Engineers New Zealand (IPENZ). I have been a NZ Green Building Council Greenstar Accredited Professional (NZGBS GSAP) and a Green Building council Assessor.
4. I have worked in building services engineering for over 15 years in New Zealand and London, and on projects in New Zealand, the United Kingdom, Europe and the Middle East. Recent relevant projects include:
 - (a) The refurbishment and integrated fit-out for Datacom at 68 Jervois Quay, Wellington.
 - (b) The ANZ Tower Refurbishment at 215 Lambton Quay, including the base build upgrade, tenancy fit-outs for the Environmental Protection Agency, Optimization, and Grant Thornton and ground floor retail refurbishment.
 - (c) Office development at 1-3 The Terrace;
 - (d) IBM’s Datacentre and Office at Petone;
 - (e) Dominion Funds, Optimization House development; and
 - (f) Ministry of Justice, Supreme Court development.
5. AECOM was engaged by one of the applicants (Site 10 Redevelopment Limited Partnership) on 3 April 2014 to provide the following ‘Open plan base building’ building engineering consultancy services for design and construction monitoring in relation to the applicant’s project known as Site 10 building project:
 - (a) Mechanical services – heating, ventilation and air conditioning (HVAC).
 - (b) Electrical services – switchboards, lighting and power.
 - (c) Communications and Electronic Security Services.
 - (d) Hydraulics services – hot / cold water, sewer, storm water and rainwater.

- (e) Fire Protection Services in conjunction with the project Fire Engineer (understood to be Holmes Fire).
 - (f) Vertical Transportation.
 - (g) Environmental sustainable design advice and energy modelling.
 - (h) Coordinated Seismic restraints for building services.
6. The services performed by AECOM for the applicant excluded:
- (a) Acoustics services.
 - (b) Civil and Geotechnical engineering services.
 - (c) Building Information Modelling.
 - (d) Greenstar accredited professional role specialist.
 - (e) Sea-water heat rejection system design.
7. My role in AECOM's services described above has been to act as the lead building services engineer on the Site 10 building project.
8. The evidence I am providing is based on the services AECOM has performed on the project and my role in undertaking those services. To the extent that my evidence could be considered expert evidence, I confirm that I have read the Code of Conduct for Expert Witnesses contained in the Environment Court Practice Note 2014 and that I agree to comply with it. I confirm that I have considered all the material facts that I am aware of that might alter or detract from the opinions that I express, and that this evidence is within my area of expertise.

SCOPE OF EVIDENCE

9. I have been asked to provide evidence arising from AECOM's services and my role on the project with regard to the proposed installation of an emergency generator at the proposed Site 10 building and the associated storage of hazardous substances (diesel).
10. The key issues considered in my evidence are:
- (a) the nature of the proposed facilities for storing the generator;
 - (b) the nature of the proposed storage facilities and the precautions to be established with regard to storing hazardous substances (diesel) in the building; and

- (c) whether any hazards associated with the proposed diesel storage will be appropriately managed and mitigated.

EVIDENCE

- 11. I prepared a statement (in the form of a letter) in support of the applications entitled "*Site 10 – Proposed Emergency Generator and Fuel Storage*" dated 16 September 2014, included as appendix 19 to the AEE forming part of the applications. This is attached at **Appendix A** to this statement of evidence.

- 12. In the statement, I described the Site 10 development provisions for a standby diesel generator set and its associated support systems. In summary, these provisions are as follows:
 - (a) The Site 10 building design includes for the capability to add a 360kW/450 kVA standby rated generator.

 - (b) The preliminary scope for the complete generator and essential power system involves:
 - (i) provision of a new generator set within an acoustically rated enclosure;

 - (ii) provision of a dedicated ground floor plantroom, into which the generator enclosure would be installed to achieve 45dBA at 7m;

 - (iii) provision of a new generator "essential" switchboard and cabling; and

 - (iv) a new 1,000 litre bulk, 4-hour fire rated, double skin fuel tank with gravity feed fuel distribution to the generator, providing a minimum of 8 hours' fuel with the generator running at full load.

 - (c) To comply with Hazardous Substances and New Organisms (HSNO) regulations:
 - (i) the fuel tanks will be provided with integral secondary containment and four hour fire rating.

 - (ii) the fuel tanks will be located inside the generator room which will be a "bunded" room.

- (iii) 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.
 - (iv) The fuel storage and transfer system will be installed and certified by a specialist contractor, who will have to provide a HSNO certificate prior to completion of the work.
- (d) To comply with the Greater Wellington Regional planning requirements, the generator engine and its exhaust design and specifications are required to meet 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, it is proposed that:
- (i) The engine specifications will produce no discharge of particulates of a concentration greater than 250mg/m (at standard temperature & pressure - STP) measured at the point of discharge; and
 - (ii) The engine exhaust discharge will be at a 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.

13. I confirm that I continue to believe that if the standby diesel generator set and its associated support systems are constructed as described in my statement (and summarised above) they will satisfy the relevant regulations and requirements identified in my statement.

COMMENT ON SUBMISSIONS

14. I wish to address the comments of Submitter 12 (Boardman) that the proposed building site: “has been deemed ground with hazardous waste matter underneath e.g. diesel fuel”. This seems to confuse the fact that contaminants have been identified in the ground (which, so far as I am aware, do not include diesel) with the proposal to store diesel fuel in the Site 10 building for an emergency generator.

15. The concern raised by Submitter 12 that “this will create problems during the building phase due to disturbance with the earthworks and digging operations” suggests she is

not referring to the proposed storage in the finished building. In any event, for the reasons I have outlined in my earlier statement and in my evidence above, if, as is proposed and intended, all requisite protocols for the storage of such fuel are followed and any storage facility subsequently built is certified as compliant with such requirements, I consider that any hazards associated with the proposed diesel storage will be appropriately managed and mitigated.

SECTION 87F REPORTS

- 16.** I note that the section 87F report prepared by the Wellington City Council acknowledges that the risks associated with the use and storage of hazardous substances (Diesel Fuel) can be appropriately minimised through the HSNO requirements. The matter is not dealt with in the Greater Wellington Regional Council's report.

CONCLUSIONS

- 17.** If the standby diesel generator set and its associated support systems are constructed as described in my statement (and summarised above) they will satisfy the relevant regulations and requirements identified in my statement.



Ramon Derrick Wilson

3 July 2015

APPENDIX A: Site 10 – Proposed Emergency Generator and Fuel Storage

16 September 2014

Rosalind Luxford
WillisBond
P O Box 24137
WELLINGTON 6142

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.

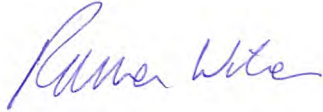
To meet these requirements we propose the following:

- 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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