

11 July 2018

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Mary Wong
Barker & Associates Ltd
P.O. Box 1986,
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Auckland 1140

TE RAPA PAK N SAVE HAZARDOUS GOODS ASSESSMENT

Dear Mary,

Background

Foodstuffs (North Island) Ltd (FNIL) intends to construct a fuel station as a part of their development of a new supermarket at 980-986 Te Rapa Road. The site includes parts of 980 Te Rapa Road (SEC 24 SO: 465769), 986 Te Rapa Road (SEC: 25 SO: 465769) and SEC 23 SO 465769 which is referred to as 0 Te Rapa Road in current Council records.

The fuel station will be located in the north-east corner of the site as shown in Drawing No. 17037\A024 prepared by Wingate Architects (copy attached). We understand that the layout of the fuel station has not been finalised, but that it is likely that the site will include:

- 2 underground double wall fibreglass tanks with 100,000 L of petrol and 40,000 L diesel:
 - One tank with capacity for 70,000 L 91 octane petrol
 - A split tank with capacity for 40,000 L diesel and 30,000 95 octane petrol
- 4 Dispensers/Pumps
- 8 Outdoor Payment Terminals
- ATG – Automatic Tank Gauges
- Vent lines/pipes
- An oil/water separator
- A fuel shed to house the BOS computer and safety equipment.

Babbage Consultants Ltd has been engaged to carry out a Hazardous Goods Assessment in accordance with the Operative Hamilton District Plan, 2017 (OHDP).



Architecture
Building Surveying
Structural Engineering
Building Services Engineering
Planning

Project Management
Land Surveying
Civil Engineering
Environmental Engineering
Geotechnical Engineering
Process & Mechanical Engineering

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Other legislation such as the Hazardous Substances and New Organisms Act 1996, Hazardous Substances (Emergency Management) Regulations 2001, Health and Safety at Work (Hazardous Substance) Regulations, 2017, Land Transport Act 1998, and their regulations, may impose additional controls and requirements with respect to hazardous substances. A consideration of the proposal with respect to any such legislation is outside the scope of works for this assessment, except when, and insofar as specifically required under the rules in the OHDP.

Key Points

- A controlled activity consent is required for the retail sale of liquid fuel in underground tanks under rule 24.4.3(d) of the OHDC.
- The site will be designed to comply with rule 25.4.4 of the OHDC and the HSNO regulations.
- It is recommended that a condition be included in the consent to require design information and an emergency response plan to demonstrate compliance with HPC Notice Part 4 Subpart A and Part 4 Clause 47 be submitted to council prior to construction of the fuel station commencing. It is noted this will also ensure compliance with rule 25.4.4.

Applicable rules and consent requirements

Chapter 25.4 of the OHDP deals with hazardous facilities. The activity table (25.4.3(d)) of the OHDP specifies that the retail sale of liquid fuel in underground storage tanks with a storage capacity of up to 100,000 litres of petrol and 50,000 litres of diesel is a controlled activity. Such an activity does not need to be assessed using the Hazardous Facilities Screening Procedure (HFSP) in Appendix 12 of the OHDP if it can be demonstrated that it complies with:

- The relevant standards in Rule 25.4.4 of the OHDP; and
- the requirements of the Hazardous Substances and New Organisms Act 1996 and regulations.

The activity table (25.4.3(n)) of the OHDP states that '*any activity identified in 25.4.3(a), (c) to (g) and (j)*' that is located within any of the following areas is a discretionary activity:

- i. High Flood Hazard Area
- ii. Medium Flood Hazard Area
- iii. Low Flood Hazard Area
- iv. Temple View Flood Hazard Area
- v. Culvert Block Flood Hazard Area
- vi. Geotechnical Waikato Riverbank and Gully Hazard Area

Reference to the Hamilton District Council online planning maps¹ indicates that the site is not located within any of the areas listed.

Compliance with rule 25.4.4

An assessment of the proposed fuel station in accordance with rule 25.4.4 of the OHDP is provided in Table 1.

Table 1. Assessment In accordance with Rule 25.4.4

Rule No.	Rule	Method of Compliance
25.4.4.1	<p>Site Design</p> <p>Any part of a hazardous facility which is involved in the manufacture, mixing, packaging, storage, loading, unloading, transfer, use or handling of hazardous substances shall be designed, constructed and operated in a manner which avoids:</p> <ul style="list-style-type: none"> i. Any off-site adverse effects on people, ecosystems, physical structures and other parts of the environment, unless permitted by a resource consent. ii. The contamination of air, land and water (including groundwater, potable water supplies and surface waters) in the event of a spill or other type of release of hazardous substances. 	<p>The surface of the entire fuel station will be concrete. The fuel station forecourt will be bunded and/or surrounded by a slotted channel and profiled so that any spills during off-loading from fuel tankers or during refuelling of vehicles will be discharged to an oil/ water interceptor.</p> <p>These measures will ensure that fuel is not discharged off-site or into the ground or water.</p>
25.4.4.2	<p>Site Layout</p> <p>The hazardous facility shall be designed to ensure that separation between on-site facilities and the property boundary is sufficient for the protection of neighbouring facilities, land uses and sensitive environments (excluding sites covered by Rule 25.4.5.2).</p>	<p>The fuel facility will be located with areas of car-parking associated with the supermarket to the south-west and north-west, a new road extension to the north-east and Eagle Way to the south-east. It is considered that separation is sufficient for these land uses.</p>
25.4.4.3	<p>Site Drainage</p> <ul style="list-style-type: none"> a. Site drainage systems shall be designed, constructed and operated in a manner that avoids the entry or discharge of hazardous substances into the stormwater and wastewater networks unless permitted by a network utility operator. b. All stormwater grates on the site shall be clearly labelled for stormwater only. 	<p>The petrol station will be covered with a canopy with stormwater from this canopy discharged directly to the site stormwater system (outside the fuel station area). The bunds/ slotted channel surrounding the forecourt (see rule 25.4.4.1) will be located under the canopy to minimise the amount of stormwater entering this system. Any runoff from the forecourt area will be discharged to the on-site oil/ water interceptor. It is not intended that any stormwater grates will be included in the fuel station area.</p>

¹ Available at: <http://gisviewer.hcc.govt.nz/Templates/PropQueryCompare/>

Rule No.	Rule	Method of Compliance
25.4.4.4	<p>Wash-Down Areas</p> <p>Any part of the hazardous facility site where vehicles, equipment or containers that are, or may have become, contaminated with hazardous substances are washed shall be designed, constructed and managed to avoid any contaminated wash water from:</p> <ul style="list-style-type: none"> i. Entering or discharging into the stormwater drainage or the wastewater networks unless permitted by a network utility operator. ii. Contaminating land, ground water, any water body or potable water supply. 	<p>NA - the proposed activity will not include any wash-down areas.</p>
25.4.4.5	<p>Spill Containment Systems</p> <p>Any parts of the hazardous facility site where a spill may occur shall be serviced by a suitable spill containment system that shall be:</p> <ul style="list-style-type: none"> i. Constructed from impervious materials resistant to the hazardous substance(s) used, stored, manufactured, mixed, packaged, loaded, unloaded or otherwise handled on the site; and for above-ground storage of liquid hazardous substances: <ul style="list-style-type: none"> ▪ Able to contain the maximum volume of the largest tank on site plus an allowance for stormwater or fire water. ▪ For drums or other smaller containers, able to contain half of the maximum volume of substances stored, plus an allowance for stormwater or fire water. ii. Able to avoid any spill or other unintentional release of hazardous substances, and any stormwater and fire water that has become contaminated from: <ul style="list-style-type: none"> ▪ Entering the stormwater or wastewater drainage system, unless permitted by a network utility operator. ▪ Contaminating land, ground water, any water body or potable water supply. 	<p>The tanks at the site will be double walled to prevent leakages during storage (see rule 25.4.4.7 and 25.4.4.8 below).</p> <p>The forecourt will be designed so as to ensure all fuel spilled in the area is discharged directly to the on-site oil/water interceptor (see rule 25.4.4.1).</p> <p>The volume of stormwater within the forecourt area will be limited due to bunding at the edge of the canopy (see rule 25.4.4.3).</p>

Rule No.	Rule	Method of Compliance
25.4.4.6	<p>Waste Management</p> <p>Any hazardous facility generating waste containing hazardous substances shall dispose of these wastes to authorised facilities holding the necessary consents and be serviced by an acceptable waste disposal contractor.</p>	<p>Solid Waste – Only small amounts of solid waste will be generated at the site. This waste will typically comprise some paper towels which may have been used to wipe fuel splashes off hands and vehicles or to clean windscreens/ mirrors as well as some general refuse (single use drink bottles and cans, food wrappers, paper etc.). Rubbish bins will be provided within the fuel forecourt and will be emptied on a regular basis at the same time as the other bins provided for public use within the supermarket and car park.</p> <p>Liquid waste – No liquid waste will be generated at the site apart from spills which are discussed under rule 25.4.4.5.</p>
25.4.4.7	<p>Storage</p> <p>Hazardous substances shall be stored in a manner that avoids:</p> <ul style="list-style-type: none"> i. The unintentional release of the hazardous substance. ii. The accumulation of any liquid or solid spills or fugitive vapours and gases in enclosed off-site areas that could result in potentially adverse effects on people, ecosystems or built structures. 	<p>All the fuel at the site will be stored in purpose designed and built underground double wall fibreglass tanks. These tanks are typical for use at fuel stations and minimise the risk of accidental release due to the built-in secondary containment system (the outer wall) and leak detection system.</p>
25.4.4.8	<p>Storage Tanks - Petroleum Products</p> <p>Tanks for the storage of petroleum products must be designed, constructed and managed to avoid leaks and spills and resulting adverse effects on people, ecosystems and property. Storage tanks shall be:</p> <ul style="list-style-type: none"> i. Constructed from impervious materials resistant to the hazardous substances to be stored. ii. Equipped with secondary containment facilities. iii. Serviced by a leak detection or monitoring system which is capable of detecting a failure or breach in the structural integrity in the primary containment vessel. 	<p>Fuel at the site will be stored in two underground double wall fibreglass tanks. These tanks are purpose designed and built for fuel storage.</p> <p>The purpose of the double wall is that the outer wall provides a secondary containment system and also allows the void between the two walls to be monitored for evidence of leakage.</p> <p>The design of the tanks will be the same or similar to tanks used at existing Pak N Save fuel stations around the country.</p>

Hazardous Substances and New Organisms Act 1996 and regulations

Unleaded Petrol

The site will store and dispense both 91 Octane (up to 70,000 L) and 95 Octane (up to 30,000 L) unleaded petrol. Unleaded petrol is an approved hazardous substance (approval no. HRC000003) with controls. Unleaded petrol has the following hazard classifications:

3.1A, 6.1E (All), 6.1E (O), 6.3B, 6.7B, 9.1B (All), 9.1B (F), 9.1B (C), 9.1B (A)

Diesel

The site will store and dispense up to 40,000 L of diesel. Diesel is an approved hazardous substance (approval no. HSR001441) with controls. Diesel has the following hazard classifications:

3.1D, 6.1E (All), 6.1E (O), 6.3B, 6.7B, 9.1B (All), 9.1B (F), 9.1B (C), 9.1B (A)

The controls for unleaded petrol and diesel as they apply at this site are discussed in Table 2.

Table 2. Controls for unleaded petrol of relevance to this site

Regulation	Description	Method of Compliance
HPC Notice Part 3	<p>Hazardous substances in a place other than a workplace</p> <p>This part outlines the requirements for hazardous substances in a place other than a workplace to which the HSW Act applies.</p>	<p>The site is a workplace and therefore this part does not apply.</p>
HPC Notice Part 4 Subpart A	<p>Site and storage controls for class 9 substances</p> <p>This section subpart imposes requirements for class 9 substances relating to:</p> <ul style="list-style-type: none"> • Labelling- substances must be correctly labelled in accordance with regulation 2.1 of the HSW HS Regulations with any reference to a “hazardous substance” replaced with “class 9 substance”. • Safety data sheets – these must be obtained and accessible in accordance regulation 2.11 of the HSW HS Regulations with any reference to a “hazardous substance” in that regulation replaced with “class 9 substance”. • stationary container systems - These must comply with Part 17 of the HSW HS Regulations with any reference to a “hazardous substance” in that regulation replaced with “class 9.1 substance”, excluding: <ul style="list-style-type: none"> ○ regulation 17.99, ○ any references to a compliance certificate, and ○ any reference to WorkSafe’s ability to approve a matter, grant an exemption from, waive or vary a requirement, determine a validity period, reduce the required capacity of a secondary containment system, increase the capacity of a stationary tank, or the aggregate capacity of a group of tanks within a secondary containment system. In addition, any reference in the HSW HS Regulations to a “relevant safe work instrument” is replaced with a reference to any safe work instrument that would be relevant to a class 6 or 8 substance • Secondary containment - secondary containment systems for pooling substances must be provided. Regulation 13.30(2) to (5) of the HSW HS Regulations apply with any reference to a “class 6 or 8 substance” replaced with “class 9 pooling substance” • Emergency response plans - Regulations 5.6 to 5.12 of the HSW HS Regulations apply for the purposes of this notice in relation to a class 9 substance • Signage. - Regulations 2.5 to 2.10 of the HSW HS Regulations apply in relation to a class 9 substance, as the threshold volume in Schedule 8 of the HPC notice will be exceeded. 	<p>The fuel storage and delivery system will be designed and constructed by companies experienced in this type of work. The tanks will be labelled and an operation manual for the fuel station prepared.</p> <p>We recommend a condition be included in the consent to require design information and an emergency response plan to demonstrate compliance with these requirements be submitted prior to construction of the fuel station commencing.</p>



<p>HPC Notice Part 4 Clause 47</p>	<p>Equipment for class 9 substances must be appropriate</p> <p>This clause applies to a class 9 substance if it is used in a workplace and states that regulation 13.7 of the HSW HS Regulations applies to the substance for the purposes of this notice, as if the reference to a class 8 substance is replaced with a reference to a class 9 substance.</p> <p>Clause 13.7 of the HSW HS Regulations requires that the person conducting a business of undertaking (PCBU) with management or control of work using a class 6 or 8 substance must ensure:</p> <ol style="list-style-type: none">1. that equipment used to handle the substance:<ol style="list-style-type: none">a. retains the substance, without leakage, at all of the temperatures and pressures at which the equipment is to be used; andb. dispenses or applies the substance, without leakage, at a rate and in a manner that the equipment is designed for.2. that the equipment is accompanied by documentation about the use and maintenance of the equipment to enable the equipment to be used and maintained in a manner that complies with subclause (1), and3. the documentation is:<ol style="list-style-type: none">a. readily available to any worker handling the substance; andb. readily understandable by any fully trained worker required to access it.	<p>The fuel storage and delivery system will be designed and constructed by companies experienced in this type of work. The tanks will be labelled and an operation manual for the fuel station prepared.</p> <p>We recommend a condition be included in the consent to require design information and an emergency response plan to demonstrate compliance with these requirements be submitted prior to construction of the fuel station commencing.</p>
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Notes: HSW HS Regulations means the Health and Safety at Work (Hazardous Substance) Regulations, 2017
HPC Notice means the Hazardous Substances (Hazardous Property Controls) Notice 2017

Closing Remarks

This assessment so long as FSNI stores no more than 100,000 L of petrol (and no more than 50,000 L of diesel). If FSNI intends to store greater volumes, it will need to reassess the development's status under the hazardous goods rules.

We trust that this information satisfies your current requirements. Should you have any queries, please do not hesitate to contact either of the undersigned.

Yours sincerely



Lotta Liddell
Senior Environmental Engineer



Dr Nathaniel Wilson
Manager – Environmental Science & Engineering

Babbage Consultants Ltd

Attachments: Applicability and limitations
Drawing No. 17037\A024 prepared by Wingate Architects

APPLICABILITY AND LIMITATIONS

Restrictions of Intended Purpose

This report has been prepared solely for the benefit of Foodstuffs North Island Limited as our client with respect to the brief. The reliance by other parties on the information or opinions contained in the report shall, without our prior review and agreement in writing, be at such party's sole risk.

Legal Interpretation

Opinions and judgements expressed herein are based on our understanding and interpretation of current regulatory standards, and should not be construed as legal opinions. Where opinions or judgements are to be relied on they should be independently verified with appropriate legal advice.

Reliability of Investigation

Babbage has performed the services for this project in accordance with the standard agreement for consulting services and current professional standards for environmental site assessment. No guarantees are either expressed or implied.

Received
PLANNING GUIDANCE
23rd July 2018



PROPOSED SITE

Site Boundary 20,013m²

PARKING SCHEDULE - OPTION 2

Type	Size	Quantity
Car Park	2500 x 5000	291
Staff Car Park	2500 x 5000	23
Accessible Car Park	2500x 5000	4
Total Vehicle Parking		318
Shopping Trolley Parking	2600 x 5000	6

