IN THE MATTER	of the Resource Management Act 1991 (**RMA**)
AND	
IN THE MATTER	of an application by Taha Fertilizer Industries Limited for land use consent to store of Ouvea Premix in the former Mataura Paper Mill buildings under s 88 of the RMA
BETWEEN	**TAHA FERTILIZER INDUSTRIES LIMITED** Applicant
AND	**GORE DISTRICT COUNCIL** Consent Authority

EVIDENCE OF PETER ALLAN CUBITT FOR TAHA FERTILIZER INDUSTRIES LIMITED

16 July 2015

Counsel Acting
ROBERT MAKGILL
BARRISTER

P 09 815 6750 F 09 849 7742 E robert@robertmakgill.com
PO Box 77-037, Mt Albert, Auckland 1350

INTRODUCTION

1. My name is Peter Allan Cubitt. I hold a Bachelor of Arts and Law Degrees from the University of Otago. I am an affiliate member of the New Zealand Planning Institute and have been involved in resource management matters since 1989. During this time I have been involved in many aspects of planning and resource management throughout the South Island.

2. I am currently the principal of Cubitt Consulting Limited that practices as a planning and resource management consultant throughout the South Island, providing advice to a range of local authorities, corporate and private clients. I personally act for the Clutha District Council. This involves both resource consent processing (subdivision and land use) and District Plan review work

3. I was heavily involved in the preparation of three District Plans prepared under the Resource Management Act 1991, being the Southland, Central Otago and the Clutha District Plans. This work included the development of the hazardous substances sections of these plans (although prior to the current legislation being in place). I have also been involved in the review of numerous District and Regional Plans throughout the South Island for a large range of private clients.

4. I have also prepared numerous resource consent applications for industrial activities, including activities using and storing hazardous substances, for private clients around the South Island. Recent resource consent applications involving industrial activities (and the storage and use of hazardous substances) I have prepared include the following:

    - Preparation of the Big River Dairy Factory Resource Consent Application (land, air and water discharges);

    - Preparation of Pan Pac Forests Products Ltd Resource Consent Application for Air and Water Discharges;

    - Preparation of Resource Consent Applications (land, air and water discharges) for Bright Wood New Zealand Wood Processing Plant - Milburn, South Otago;

- Preparation of resource consent applications (land, air and water discharges) for City Forests Ltd Wood Processing Plant - Milburn, South Otago;

- Preparation of resource consent applications for Hope & Sons for a permit to discharge contaminants to air from a Cremator;

- Preparation of resource consent applications (land, air and water discharges) for New Zealand Growing Media Ltd (peat harvesting and processing); and

- Preparation of resource consents for McKeown Petroleum to establish fuel facilities at Twizel, Methven and Wanaka.

5. More importantly for this hearing, a significant portion of my work is undertaken in the Southland Region for a number of local authorities and private clients alike. The work involves range of activities including industrial development and the discharges associated with them. In this context I act for the owner of this site, GJ Paterson and DJ Harvie as Trustees for Niblick Trust (trading as Mataura Industrial Estate), and have sought a number of resource consents on their behalf in relation to the site. These include re-consenting the hydro scheme on the site; obtaining the consents necessary to install an additional turbine in the hydro scheme; and obtaining the consents necessary to authorise tailrace maintenance and gravel removal works. Hence I am very familiar with the site and the planning documents that regulate the use and development of it.

6. I am also a Certified Hearings Commissioner having completed the RMA: Making Good Decisions programme. I have conducted numerous hearings on resource consent applications, designations and plan changes for the Dunedin City Council, the Southland District Council, the Timaru District Council, the Waitaki District Council and Environment Southland. These hearings have involved a range of resource management issues including industrial/hazardous substance development issues and natural hazard (including flood) protection works. Of relevance to this hearing are the following:

- Plan Change No. 2 (Stewart Island Industrial zone) to the Southland District Plan;
- Edendale/Wyndham Waste Water Treatment Plant discharges (Southland District Council);
- Department of Conservation, Cleddau Village flood protection and redevelopment, Milford Sound (Southland District Council and Environment Southland);
- Coastal protection works at three locations on Stewart Island, being Horseshoe Bay, Oban Foreshore and Lonnekers Beach (Southland District Council and Environment Southland);
- Restoration works on the Mararoa River (Environment Southland);
- Meridians high flow trials consent at the Manapouri Power Station (Environment Southland);
- Takitimu Coal Limited to take water, divert and discharge groundwater and stormwater, and to discharge contaminants to air from a mining activity (Southland District Council and Environment Southland);
- The redevelopment of Shell service station site, Stuart Street Dunedin (Dunedin City Council);
- Plan Change 14 – Washdyke Industrial Expansion (Timaru District Council);
- Plan Change 15 – Industrial Zone L Expansion (Timaru District Council);
- NZ Rail Corp Temuka Rail yard re-development (Timaru District Council);
- Whitestone Holdings Ltd industrial site redevelopment proposal (Waitaki District Council);

- Euroclass Holdings industrial development (Waitaki District Council); and
- Notice Of Requirement for KiwiRail (Holcim (New Zealand) Limited branch line) (Waitaki District Council).

7. I am also the Chair of Environment Southland's Regional Policy Statement Hearing Panel.

SUMMARY OF EVIDENCE

8. I have been retained by Taha Fertilizer Industries Limited (**Taha**) to prepare a statement of planning evidence on proposed resource consent conditions, including a bond, and other planning matters relating to the consent application.

9. My evidence addresses the following key issues:

   (a) Proposed consent conditions, including the proposed nature and scope of a bond;

   (b) The consenting requirements for storage of Ouvea Premix under Environment Southland's Regional Air Quality Plan (**Regional Plan**); and

   (c) The inconsistencies between the Hazardous Substances and New Organisms (**HSNO**) Classification Regulations (**Classification Regulations**).

10. My evidence also provides an overall planning assessment of the resource consent application, taking into account all the evidence and supplementary evidence that has been submitted by the Applicant to date.

11. In preparing this evidence I have reviewed, and relied upon where necessary, the application documents (including the associated technical reports), the section 42A report prepared by Mr Alchin and the evidence in chief and supplementary evidence (where produced) of the following experts:

(a) William Watt – Planner

(b) Bruce Clarke – Executive Environmental Consultant

(c) Lindsay Buckingham – Project Manager

(d) Ben Fountain – Senior Rivers Engineer

CODE OF CONDUCT

12. I have read the Environment Court Code of Conduct for expert witnesses and agree to comply with it. I confirm that the topics and opinions addressed in this statement are within my area of expertise except where I state that I have relied on the evidence of other persons. I have not omitted to consider materials or facts known to me that might alter or detract from the opinions I have expressed.

BACKGROUND

13. Taha has applied for retrospective resource consent to store Class 6 and 9 hazardous substances (primarily Ouvea Premix) at its storage facility on 65-121 and 116-128 Kana Street, Mataura. Consent is sought for a duration of 2 years while Taha establishes a permanent facility at the Awarua Industrial Park in Invercargill.

14. Under Rule 6.9(2) of the Gore District Plan (**District Plan**), the storage of class 6 and 9 hazardous substances above the level permitted in the District Plan requires resource consent for a restricted discretionary activity. In this instance, the Gore District Council's (**Council**) discretion is limited to the environmental effects of storing or using hazardous substances in quantities in excess of those specified in the District Plan. Importantly, the proposed activity does not involve 'use' of the hazardous substance. Once stored, the product is not disturbed.

15. Taha has also applied for consent for minor parking non-compliances related to the storage of hazardous substances at Kana Street under rules 5.9.2 and 5.9.4 of the District Plan, and in particular the limited amount of off-street parking for the Ground Floor Area (**GFA**) of the site.

16. Consent is required for a restricted discretionary activity, and the Council's discretion is limited to any adverse environmental effects resulting from the non-compliances.

PLANNING ASSESSMENT

17. As a part of preparing this evidence I have had the opportunity to review the planning evidence in chief of Mr Watt. He concluded that the adverse environmental effects are minor or less than minor, and are therefore acceptable. I agree with that assessment.

18. What must be remembered is that the environmental effects of this activity that are of any consequence relate to an event that has a very low probability of occurring, being a flood that will breach the existing flood protection works. From the assessments I have seen, any adverse effects from the actual storage of the product on the site would appear de minimus. The product has already been stored on the site so no further handling of product need occur until it is time to relocate it to the permanent storage facility. If a spill does occur during that time, the incident response procedure will be put in place. As Mr Clarke's evidence notes, this will not lead to the production of hazardous waste. There does not appear to be any concern regarding the bags the product is stored in while the building is structurally sound and work has been carried out on the building to ensure it is sufficiently water tight. Mr Clarke's evidence states that the potential for the product to decompose in a fire is very low.

19. This then only leaves the issue of a large flood event, being a 1% Annual Exceedance Probability (**AEP**) event in the Mataura River. Again Mr Clarke's evidence is quite compelling. He concludes that when wet after a flood event, the release of ammonia gas to air is very slow and should not be confused with major industrial incidents (such as the emergency release of anhydrous ammonia from the failure of a refrigeration system, such as that operated by Alliance Mataura) which can have severe consequences. Mr Clarke's modelling confirms the effects of ammonia release under the circumstances we are dealing with are well below the 'No Adverse Effects Level for Human Equivalent Concentrations' (as defined by the US National

Institute for Occupational Safety and Health), which is the level of continuous exposure to ammonia below which there are no observable health effects to a person who is exposed to the gas. In planning terms, the adverse effect would be described as less than minor or de minimus.

20. Mr Clarke's evidence, based on the appropriate modelling, also confirms that the release of nitrogen species (ammonia, nitrate, nitrite, total nitrogen) and fluoride into the waters of the Mataura during the flood event will be well below levels determined by the appropriate guidelines where any effect on aquatic ecosystems will be adverse. Again, in planning terms, the concentrations of nitrogen and fluoride in the river under flood conditions are at a level where the adverse effect could only be described as less than minor or de minimus.

21. It is also important to point out that Mr Clarke's evidence is based on the effects of a 1% AEP event from the Mataura River – i.e. the "worst case scenario". Mr Fountain's evidence shows that there is a 2% AEP that the Waikana Stream will flood in any given year, and that this may result in some of the product in the buildings getting wet, particularly if the proposed flood protection measures are not in place. However, given the conclusions presented by Mr Clarke that the environmental effects of the 1% AEP event are less than minor or de minimus, the potential or actual effects as a result of smaller flooding from the Waikana Stream will also therefore be less than minor or de minimus.

22. Mr Clarke also considered the environmental risk associated with the material getting wet through any other means, including in his supplementary evidence where he considered the effects associated with material getting wet as a result of the bags degrading in a fire. In all situations assessed, the environmental effects were considered to be minimal.

23. The evidence presented therefore indicates to me that that the concern with the proposal that has arisen through submissions and the Section 42A Report are based more on perception than actual reality. Often decision making authorities, when faced with technical matters not well understood

by the public, look to adopt a 'precautionary approach' to the determination of the application.

24. While that approach can be considered in the right circumstances, it must be remembered that a number of Environment Court decisions have confirmed the RMA is not a 'no risk' piece of legislation. The Land Air and Water v Waikato RC case stated that a consent authority is required to exercise its discretion in the circumstances of each case and that such circumstances include:

- Evidence of adverse effects or risk to the environment, rather than mere suspicion or innuendo;
- The gravity of the effects, regardless of scientific uncertainty, if they do occur;
- Uncertainty or ignorance regarding the extent, nature, or scope of potential environmental harm;
- The effects on the environment - whether they are serious or irreversible;
- Recognition that the Act does not endorse a "no-risk" regime; and
- The impact on otherwise permitted activities.

25. Despite being located within a flood plain, Mr Fountain's evidence confirms that the risk of a flood event occurring which could enable the release of ammonia into the environment is very low, although there is always a degree of uncertainty when such an event may occur. Importantly however, is that in this case the risk (adverse effect) to the environment of that occurring is well known (i.e. there is no scientific uncertainty), and that risk is considered de minimus. The peer review undertaken by Mr Brian Mills, Environmental Scientist at Beca, concludes that the trials presented by Jacobs present reasonable results, consistent with the published literature. This effectively confirms the assessment presented in Mr Clarke's evidence that a flood event will not result in offsite ammonia concentrations that are of concern.

26. The peer review did raise the issue that Taha needs to consider the aftermath of a flood, in which wet premix will continue to generate ammonia (and presumably hydrogen). However these emissions are unlikely to present a concern off-site but will need to be assessed in terms of health and safety of on-site personnel during post-flood clean-up. The Flood Protection Plan could be updated to include monitoring of ammonia gas on and off-site following a flood event. I understand Mr Clarke and Mr Mills will present a caucusing joint statement on this matter prior to the hearing.

27. The Shirley Primary School v Christchurch City Council C136/98 decision is one of the relevant authorities on adverse psychological effects relating to community perceptions. While accepting that there was genuine community concern (or even fear) in respect to exposure to radio frequency radiation, the Court found that such fears can only be given weight if they are reasonably based on real risk. I would suggest that this case is similar to that considered by the Court – the risk is not real.

28. From a planning perspective there is no valid reason to refuse this consent. The site is appropriately zoned. Only the "Mixed Use" zone and the "Industrial" zone of the District Plan permit industrial activities. It is clearly understood that industrial activities and processes often use and store hazardous substances. However, it is significant that the "Industrial" zone permits the storage of hazardous substances at significantly higher levels than the "Mixed Use" zone. Only 200kgs of Class 6 material can be stored in the "Mixed Use" zone as opposed to 1000kgs in the Industrial zone, while the difference in permitted quantities of Class 9 material is significantly greater with only 500kg permitted as opposed to 5000kg.

29. Given the use and storage of hazardous substance is an important component of communities providing for their social and economic welfare, it is clear from the structure of the District Plan that the majority of large scale activities that involve this in the Gore District are to occur in the Industrial Zone. As a consequence it is anticipated that these activities will be reflective of the 'characteristics and amenity values' of the zone. Therefore it cannot be argued that the activity is inconsistent with the amenity based

land use objectives and policies of Section 3 of the Plan (which I note does not contain objectives and policies specific to each zone).

30. Hence the key policy suites are those relating specifically to hazardous substances (section 6 of the District Plan) and natural hazards (section 4A of the District Plan).

31. Objective 6.3(1) is to:

> *Prevent or mitigate adverse environmental effects and risks associated with the use, storage, transportation and disposal of hazardous substances.*

32. In terms of Objective 6.3(1), as discussed, the risk associated with storing the substance only relates to effects that could occur in a large scale flood event. The probability of this is low, and the resulting effects are considered to be de minimus. However, the Applicant has taken measures to minimise adverse effects as far as possible, including the development of a Flood Protection Plan.

33. Associated Policy (6.4(1)) is to:

> *Limit the quantities of hazardous substances stored at sites to a level that is appropriate to the activities undertaken on that site and appropriate to the environment of that locality*

34. There are two main characteristics of the environment to consider when making an assessment against Policy (6.4(1)). Firstly, the site is zoned Industrial and as I noted above, this is the zone where you expect to find the storage and use of hazardous substances. Secondly, the site is located within an area that is considered potentially flood prone in events larger than the 1978 flood or where stop bank breaches could occur in smaller events (although there is no rule controlling the use and storage of hazardous substances on this site because of this). The policy framework of the natural hazards section is therefore relevant, and particularly Objective 4A.3(2), which is to:

> *Minimise the risk to people and property from inundation.*

35. Given any release of ammonia in a flood event will have negligible adverse effects on human health and aquatic ecosystems, as described in Mr Clarke's evidence, the risk to people from the substance being inundated is minimised.

36. Consequently I am of the opinion that the outcomes sought by the policy framework of the District Plan are achieved. Having said that, the questions asked by the Commissioner are not unreasonable given there is always a 'residual risk' when dealing with sites that are potentially affected by natural hazards. In this context it is noted that Objective 6.3(1) does encourage 'prevention' of risk (although this is not an environmental bottom line given the objective also allows for minimisation of adverse effects).

37. Directly connected to risk associated with the proposed activity is the issue of conditions, in particular the request to consider the appropriateness of a bond and what form it should take.

PROPOSED CONSENT CONDITIONS

Bond Conditions

38. At the hearing, the Commissioners requested advice regarding the potential scope and nature of bond conditions, should the Applicant's resource consent application be granted. I understand the request for advice on a bond is linked to the concern expressed by the Commissioners as to the applicant's ability to remove the material at the end of the 2 year consent term, and particularly the costs associated with removal and possibly disposal of the material to landfill.

39. Section 108(2)(b) of the Act enables a consent authority to attach a condition requiring the provision of a bond (and the terms of the bond) in accordance with Section 108A. Section 108A(1) states a bond may be given for the performance of any one or more conditions of the consent as the consent authority considers appropriate and that the bond may continue to be in force after the expiry of the resource consent to secure the ongoing performance of conditions relating long term effects. Section 108A (2) sets out what the terms of the bond may include.

40. A bond is essentially a written promise to comply with conditions of consent, or to pay the bond holder (the Council) money so that Council can complete the conditions if the consent holder fails to do so. A bond should only be aimed at securing compliance with conditions that Council can step in and complete, preferably as a one off. Care needs to be taken to consider whether the conditions that are to be secured by the bond are capable of completion by Council using the bonded sum.

41. Dealing first with the appropriateness of (or need for) the bond, I am of the view that the evidence in front of you indicates that the risk here is more perceived than reality. The work done as a result of this process, including the peer review of Beca, provides a much better understanding of the risk than may have been the case at the time the application was lodged. The only conclusion I can draw from reviewing the scientific evidence presented is that the environmental effects are less than minor or de minimus.

42. On that basis, I consider that a low risk consent with a duration of only two years should not require a performance bond condition.

43. The evidence of Mr Clarke and Mr Fountain confirms that every year there is a 1% chance of the buildings being inundated from a large-scale flood. However, even if the buildings are flooded in such an event, the actual effects are less than minor or de minimus.

44. If the Commissioners are concerned that the process involved in establishing a permanent site for the product (as set out in Mr Buckingham's evidence) may not secure a site in time, then I see no risk in allowing the product to be stored on site for a longer period of time, say 5 years. Doing so does not change the actual or potential environmental effects of the proposal. Commercial negotiations of this nature can run into difficulties (particularly when there are resource consents to be sought), so a 5 year duration would allow Taha to complete the purchase and development of a permanent facility without the additional pressure of meeting what is a very short term consent (it is 3 years shorter than the RMA's 5 year lapse period for giving effect to a consent).

45. I note that this is simply my expert view, and I have not been provided with instructions by Taha to seek a longer term to enable a new site and storage facility to be secured.

46. In my view, having a longer consent duration is a better outcome for the consent authority than imposing a bond condition. A bond condition relating to removal and disposal of the material may present some significant difficulties. In my experience, most bonds relate to completing conditions on the actual consented site (for example, rehabilitation work at a mining site). The quantum is relatively easy to establish, the work is authorised by the subject consent and no third party is involved. However the scenario here involves transporting the material to a different site for either storage or disposal, and that site may not exist at the time it is needed because the appropriate consent may not be in place (I understand that this is currently the case with landfills in the Southland Region). Hence a further resource consent process would be involved with an uncertain outcome. I do not envisage that the Council would wish to be put in that position.

47. The other difficulty with such an approach is that it may be ultra vires. The bond can only relate to a condition that can be legally imposed on a consent. In this case it can relate to 'removal' of the product, as a condition can (and is) proposed that it be removed by the expiry of the consent. However there is unlikely to be any authority to impose a condition requiring 'disposal' particularly given the fact that the product will not be 'disposed of' but used to make fertiliser. This would require disposal of the product at a site not related to the consented site and which is not yet identified and consented, and which involves third parties in the purchase and consent process. A condition of this nature is not an enforceable condition.

48. Imposing a bond to transport and 'dispose of' (store) the product at the proposed Awarua site would seem pointless as the only reason such a bond would be enforced is if that site was not ready to receive the product. If it was, Taha would have already moved the material.

49. Probably of most significance, is the issue of liability – if Council imposes a bond for removal and disposal and then has to enforce that bond (for whatever reason), it is assumed that Council becomes liable for the product.

Surely the best outcome for Council is to ensure liability remains with the consent holder and if the terms of the consent are not met, enforcement through the Courts is the best outcome, as the Courts will have the power to deal with the issue. Given the environmental effects of the proposal are de minimus, I consider there is no risk in this approach to Council.

Other conditions

50. With respect to the Commissioners request for detailed consent conditions, should the application be approved, it must be bore in mind that the term sought for the consent is very short (2 years although I consider 5 year to be more appropriate) and that the actual and potential environmental effects of the proposal are likely to be less than minor. As such, the proposed consent conditions should primarily focus on ensuring the appropriate management strategies (to deal with incidents such as floods, spillages or complaints) are put in place.

51. The suggested consent conditions attached as **annexure "A"**, and are broadly similar to (but rather more detailed than) the consent conditions Taha is already subject to in respect of other storage sites in Invercargill, in particularly the consent conditions for the storage site at Annan/Liddel Street. This storage site is consented to store up to:

- 9,300 tonnes (**T**) of Ouvea Premix (Cast-House, Landfill and Bag-House)
- 950 T of Stablised Ouvea
- 220 T of Di-Ammonium Phosphate
- 200 T of Sulphate of Ammonia
- 11,000 T of Balance 10 (fertiliser)

CONSENT STATUS UNDER THE REGIONAL AIR PLAN

52. At the Hearing in May 2015, the Commissioners sought clarification regarding the requirement for an air discharge consent under the Regional

Plan for any air discharges associated with the storage of Ouvea premix at Kana Street.

53. Paragraphs [27] – [36] of Mr Bruce Clarke's supplementary evidence dated 3 July 2015 provide an assessment regarding the activity status of the storage of Ouvea Premix under the Regional Plan, and particularly any discharges to air as a result of the storage activities.

54. Mr Clarke concluded in paragraph [35] of his supplementary evidence that the proposed storage activities and any resulting fugitive emissions would be covered by Rule 5.5.4 and therefore permitted under the Regional Plan.

55. Mr Clarke's analysis is based on the fact that the proposed activity is part of the production of fertiliser which is a discretionary activity under Rule 5.5.2(3)(e), but is not at the scale or does not generate the output anticipated by the rule because it is only the storage component of the activity. On that basis the activity is picked up by Rule 5.5.4 and because it complies with the listed criteria, it is permitted.

56. There is some force in Mr Clarke's argument as 'storage' is specifically defined by the Air Plan as being:

> ***Industrial or Trade Process:*** *Includes every part of a process from the receipt of raw material to the dispatch or use in another process or disposal of any product or waste material, and any intervening storage of the raw material, partly processed matter, or product.*

57. The phrase 'intervening storage' suggests that the process does not need to take place all on one site, which is common place with industrial activities. Mr Clarke's evidence confirms that the fugitive emissions resulting from storage of Ouvea Premix (when the product gets damp in storage) are de minimus, in that there are no effects beyond the boundary of the site. Hence the discharge of contaminant is nowhere near the scale anticipated by Rule 5.5.2 for the processing part of fertiliser manufacture. Any event that may cause effects beyond the boundary would be beyond Taha's control, for which no consent can be applied for anyway (and as we have seen, these are also de minimus).

58. This is the most logical approach to the issue as all inert substances that are stored for use in industrial purposes would potentially require resource consent under Rule 5.5.5 if any other interpretation was applied. Given how inefficient this would be, particularly as storage generally does not involve the discharge of contaminants to air, this is unlikely to be the intention of the Regional Plan.

59. In this regard, I note that Taha's other storage facilities within the Southland Region, in particular Taha's consents to store Ouvea Premix at three sites in Invercargill, do not have air discharge consents associated with storage activities (one site has an air discharge permit to manufacture fertiliser) and Taha has not been asked to apply for such consents by Environment Southland. Environment Southland has also visited the Mataura site a number of times and has never indicated an air discharge consent is required for storage activities. Further, the air discharge consent that Taha originally sought for the site was in relation to the proposed fertiliser manufacturing facility, however Taha no longer proposes to develop such a facility at the site.

60. As a consequence of the foregoing, I do not believe the proposed storage activity requires an air discharge permit under the Regional Air Plan.

INCONSISTENCIES BETWEEN HSNO AND THE DISTRICT PLAN

61. At the consent hearing, the Commissioners also sought a clear description regarding the apparent inconsistencies between the Classification Regulations and the District Plan, potentially resulting in misconceptions as to the risk posed by Ouvea Premix, a Class 6 and 9 hazardous substances.

62. Paragraphs [37] – [42] or Mr Clarke's supplementary evidence provide a detailed explanation regarding the inconsistencies between the Classifications Regulations and the District Plan.

63. Having reviewed Mr Clarke's evidence, the hazardous substance provisions of the District Plan and the HSNO Act 1996 and Classification Regulations, I agree with his position on this matter. I understand that Plan Change 18A to

the District Plan, which addresses HSNO issues, was made operative after these dates.

64. Both regional and district councils have functions in relation to the prevention or mitigation of any adverse effects of the storage, use, disposal, or transportation of hazardous substances (see sections 30 and 31 of the Act). Section 142 of the HSNO Act provides that RMA plans can only include more stringent requirements than the HSNO Act when they are considered 'necessary' for the purposes of the RMA. As Mr Clarke advised, a hazardous substance is defined in the HSNO Act as a substance that is:

- explosive;
- flammable;
- oxidising (i.e., it can accelerate the combustion of other material);
- corrosive (of metals or biological issue);
- toxic; or
- eco-toxic.

65. Both the classification table (Table 6.1) and the permitted quantities table (Table 6.2) of the District Plan use different terminology than the HSNO Act which leads to confusion. This is compounded by the fact that in several of the classes, the sub-class is not included. As Mr Clarke notes, Table 6.2 refers to a 'class' 6 Poisonous Substances. This class is actually for 'toxic' substances and includes a wide range of substances with vastly different levels of toxicity. Ouvea Premix is a Class 6 eye and skin irritant and is not poisonous as such, but these sub-classes are lumped in with acutely toxic substances. The District Plan also includes Class 9 (Agri-chemical) and Class 10 (eco-toxins). Under the HSNO regulations there is only a Class 9 – Eco-toxins.

66. It is not clear why this has occurred and whether it is for an RMA purpose. I have reviewed several other District Plans (e.g. Dunedin City, Waitaki District, Timaru District, and Selwyn District) and note there are a number of inconsistencies with the HSNO Act in most of these plans. Many of these pre-date the recent HSNO updates and that could be the reason for these inconsistencies.

67. However it would appear that the Gore and the Dunedin City Plans do not pre-date the current HSNO legislation. Table 17.1 of the Dunedin City District Plan is attached as **annexure "B"**, and it appears to be consistent with classifications and terminology of the legislation. It covers the range of class 6 substances and expresses the permitted quantities in either litres or kgs/tonnes as appropriate for the nature of the substance. The permitted levels for class 6 substances in the Industrial Zone range from zero to up to 50 T. The permitted levels also range in quantity within the sub-classes. For example, the permitted range for 6.4A (eye irritants) is from 1kg to up to 50 T.

68. Under the DCC classification, 2000kg of Ouvea Premix would be permitted on the site. The GDP only allows 1000kg of class 6 substances to be stored but this includes acutely toxic substances such as chlorine, which the DCC plan does not permit at any quantity unless resource consent is granted.

69. The problem for this proposal is that it is not clear to the public and those processing the application that there are a range of toxicity levels (and therefore associated risk) and that this particular substance is not overly toxic. This has perhaps led to some of the misconceptions around the risks posed by the activity.

70. As an example, residents are unlikely to be concerned about the same level of fertiliser being stored at the site. However, I understand that this would have greater environmental effects than what is proposed here. Had this issue, along with the effects of discharge associated with the product, been better understood at the outset, then the approach to the application may have been entirely different.

CONCLUSION

71. In summary, I conclude that:

(i) Any adverse effects from the actual storage of the product on the site would appear de minimus. No further handling of the product is needed unless in response to an incident or when it is to be removed.

(ii) The environmental effects of this activity that are of any consequence relate to an event that has a very low probability of occurring, being a flood that will breach the existing flood protection works. The risk of a flood event occurring which could enable the release of ammonia into the environment is very low.

(iii) The adverse environmental effects of that occurring, when measured against the appropriate guidelines, are so low that they are less than minor or de minimus.

(iv) The site is appropriately zone as the structure of the District Plan indicates such activities such occur within the Industrial zone.

(v) The proposal is consistent with all relevant objectives and policies, in particular the policy framework relating to hazardous substances and natural hazards.

(vi) The activity does not need an air discharge permit from Environment Southland.

(vii) The inconsistency between the District Plan and the relevant HSNO legislation has probably lead misconceptions around the risks posed by the activity.

(viii) No bond condition is considered necessary given the low risk and short duration of the consent sought (and may not even be legal). In fact the more appropriate approach to address the concerns of the Commissioners would be to extend the consents duration to 5 years.

Dated this 16th day of July 2015

Allan Cubitt

Annexure A: Proposed Consent Conditions

Description/specification:

(i) The consent is personal to the applicant, Taha Fertilizer Industries Limited (Taha).

(ii) The consent is for a duration of **[2 or 5 years]** from the date of the consent being granted.

(iii) The proposed activity is to be undertaken in general accordance with the application (dated 11 March 2015) and supplementary information submitted to the Gore District Council, referenced as LUC-2014-95, except where modified by the attached conditions.

(iv) The consent is for Taha to store material that is located at 65-121 and 116-128 Kana Street (the subject site) as at 12 May 2015. Taha shall not store any additional material at the site throughout the duration of this resource consent, and may remove material from the site only in accordance with this resource consent.

(v) The consent is for Taha to store material and quantities in excess of quantities permitted in the Gore District Plan as follows:

- Up to 10,000 tonne of Ouvea premix, stored in one tonne plastic lined storage bags with polyethylene mesh woven outside layer and heavy duty plastic lining, as described in the application.

- Up to 8 tonne of Sulphate of Ammonia, stored in one tonne plastic lined storage bags with polyethylene mesh woven outside layer and heavy duty plastic lining, as described in the application.

(vi) All ouvea premix and sulphate of ammonia stored on site in excess of the quantities permitted by the District Plan is to be removed from the site by the expiry of this consent.

(vii) There shall be no emptying or filling of the one tonne storage bags on site other than in response to an incident or emergency.

Restrictions/standards

(viii) The storage and handling of the Ouvea Premix and the Sulphate of Ammonia at the site shall be in accordance with the following Safety Data Sheets:

- Sulphate of Ammonia – Safety Data Sheet attached at Appendix D to the application; and
- Ouvea Premix – Safety Data Sheet attached at Annexure C of Bruce Clarke's supplementary evidence dated 3 July 2015.

(ix) Where the Safety Data Sheets for the substances referred to in condition (vii) above are updated, Taha shall provide Council with the updated version within 30 days of it being produced.

Assurance/certification

(x) Taha shall submit a current Environmental Management Plan, prepared by a suitability qualified person, for certification by the Council within 30 days of this consent being granted. This plan shall be in general accordance with Appendix E of the Hazard Identification and Risk Assessment (HIRA) Report dated 30 April 2015 titled 'Environmental Management Plan'. The site shall be managed and the associated activity shall be carried out in accordance with this plan. The Plan is to be maintained and updated throughout the duration of this consent. If any amendments or updates are made to the Plan, Taha shall provide Council with the updated version of the plan within 30 days of any changes being made.

(xi) Taha shall submit a current Flood Response Plan prepared by a suitability qualified person, for certification by the Council within 30 days of this consent being granted. This plan shall be in general accordance with 'Annexure A – Draft Flood Protection Plan' of Mr Fountain's supplementary evidence dated 24th July 2015. The site

shall be managed and the associated activity shall be carried out in accordance with this plan. This Plan shall be maintained and updated throughout the duration of this consent, including carrying out and recording 6-monthly checks of the flood mitigation methods. If any amendments or updates are made to these Plans, Taha shall provide Council with the updated version of the plan within 30 days of any changes being made.

(xii) Taha shall submit a current Traffic Management Plan (TMP) prepared by a suitability qualified person in consultation with NZTA, for certification by the Council within 30 days of this consent being granted. This plan shall be in general accordance with the Traffic Management Plan produced by Traffic Management Services Limited and filed with the Commissioners on 3 July 2015. All loading activities shall be undertaken in accordance with the Traffic Management Plan unless expressly approved in writing by the Council's Roading Manager and after consultation with NZTA. All consultation with the community shall occur in accordance with the TMP.

(xiii) Taha shall develop and maintain an Incident Response Register on the subject site detailing any incidents (including floods, spillages or complaints made to any Taha staff members, contractors and providers) and the actions that were taken to rectify the incident. The Incident Response Register is to be made available to Council staff immediately on request.

(xiv) The buildings which are the subject of this consent and their associated systems are to be maintained to Building Warrant of Fitness standard over the duration of this consent

Monitoring

(xv) Taha shall conduct regular ammonia gas monitoring at the site and produce monthly monitoring reports. These reports are to be made available to the Council immediately on request.

(xvi) The Council may after 60 days of approving this consent, serve notice of its intention to monitor the site of this consent for the purpose of

dealing with any unforeseen or adverse effect on the environment associated with the exercise of this consent.

Review

(xvii) The council may once per year, on any of the last five working days of either May or November, serve notice of its intention to review the conditions of this consent for the purpose of:

- changing the frequency and location of monitoring specified in condition (xi),
- amending or adding conditions to address odour effects that may arise, and
- dealing with any adverse effect on the environment which may arise from the exercise of the consent and which it is appropriate to deal with at a later stage.

Community Liaison,

Advice Notes

(xviii) Please be aware that the site is identified as having a HAIL history and any future earthworks or erection of structures may require assessment under the "NES for Managing Contaminants in Soil to Protect Human Health 2011". Known potential hazards are storage tanks, liquid fuels and chemical wastes.

(xix) It is the applicant's responsibility to comply with all conditions imposed on this resource consent whilst carrying out the activity for which the consent is granted.

(xx) Attention is drawn to the fact that the site is located adjacent to the Mataura River Floodway and within an area recognised on Map MAT 05 of the Gore District Plan as potentially floodprone from the Mataura River in floods larger than that of 1978, or a stopbank breach in smaller floods. The site is noted as having flooded in 1978.

Annexure B: Hazardous Substance Thresholds in Dunedin City District Plan

Table 17.1: Thresholds Above Which a Resource Consent is Required for Hazardous Substances

(IMPORTANT - Table 17.1 must be read with Notes for Plan Users and Permitted Activity Rule 17.5.1) *[Amended by Plan Change 13, 2 September 2013]*

Substance	HSNO sub-class and hazard classification	Substance	Group 1: Residential Zones and residential activities in all other zones.	Group 2: Activity, Industry, Stadium, Proposed Harbourside Zones, exc. residential activities.	Group 3: Campus Zone, excluding residential activities.	Group 4: Rural and Rural Residential Zone, excluding residential, forestry and timber treatment activities.	Group 5: Forestry and timber treatment activities in the Rural and Rural Residential Zone.	Group 6: Port Zone, excluding residential activities.	Group 7: Airport Zone, excluding residential activities.	Group 8: Major Facilities (Mercy Hospital) Zone.
Explosives	1.1A-G, J, L Mass explosion hazard	Gunpowder and black powder	15kg	15kg	0	15kg	0	0	0	0
		Display fireworks	0							
		Industrial explosives (e.g. TNT) and all other 1.1	0	25kg	0	25kg	25kg	No threshold	0	0
	1.2B-L Projection hazard	All	No thresholds							
	1.3C, F-L Fire and minor blast hazard	Smokeless ammunition reloading powder	15kg	50kg	0	15kg	15kg	No threshold	15kg	15kg
Explosives	1.3C, F-L Fire and minor blast hazard	Retail fireworks	No thresholds – refer to Hazardous Substance (Fireworks) Regulations 2001							
		All other 1.3	No thresholds							
	1.4B-G, S No significant hazard	Safety ammunition and marine flares	25kg	50kg	5kg	25kg	15kg	50kg	No threshold	25kg
		Retail fireworks	No thresholds – refer to Hazardous Substance (Fireworks) Regulations 2001							
		Sodium Azide	0							
		All other 1.4	No thresholds							
	1.5D Very insensitive, with mass explosion hazard	All	No thresholds							
	1.6N Extremely insensitive, no mass explosion hazard	All	No thresholds							

(IMPORTANT – Table 17.1 must be read with Notes for Plan Users and Permitted Activity Rule 17.5.1) *[Amended by Plan Change 13, 2 September 2013]*

Substance	HSNO sub-class and hazard classification	Substance	Group 1: Residential Zones and residential activities in all other zones.	Group 2: Activity, Industry, Stadium, Proposed Harbourside Zones, excluding residential activities.	Group 3: Campus Zone, excluding residential activities.	Group 4: Rural and Rural Residential Zone, excluding residential, forestry and timber treatment activities.	Group 5: Forestry and timber treatment activities in the Rural and Rural Residential Zone.	Group 6: Port Zone, excluding residential activities.	Group 7: Airport Zone, excluding residential activities.	Group 8: Major Facilities (Mercy Hospital) Zone.
Gases and aerosols	2NH (Non-Hazardous)	All	$10m^3$	$200m^3$	$200m^3$ 500 litres of non-flammable, non-toxic cryogenic liquids stored in accordance with AS1894:1997	$200m^3$	$200m^3$	$200m^3$	$200m^3$	$10m^3$
	2.1.1A High hazard flammable gases *[Amended by Consent Order ENV-2012-CHC-99, 6 December 2012]*	LPG (inc. propane-based refrigerant) in cylinders or multi-vessel tanks. See Note for Plan Users 11 with regard to indoor storage of LPG.	200kg Total Outdoor Storage Quantity	450kg Total Outdoor Storage Quantity	450kg Total Outdoor Storage Quantity	450kg Total Outdoor Storage Quantity	450kg Total Outdoor Storage Quantity	600kg Total Outdoor Storage Quantity	450kg Total Outdoor Storage Quantity	200kg Total Outdoor Storage Quantity
		LPG propane-based refrigerant in commercial refrigeration receivers	0	50kg	50kg	50kg	50kg	50kg	50kg	0
Gases and aerosols	2.1.1A High hazard flammable gases *[Amended by Consent Order ENV-2012-CHC-99, 6 December 2012]*	Acetylene	$1m^3$	$2m^3$	$30m^3$	$30m^3$	$30m^3$	$30m^3$	$30m^3$	$1.45m^3$
		Hydrogen, methane and all other permanent gases	0	0	$30m^3$	$100m^3$	$30m^3$	$30m^3$	$30m^3$	0
Gases and aerosols	2.1.1B Medium hazard flammable gases	Anhydrous ammonia refrigerant	0	140kg	0	0	0	140kg	140kg	0
		All other 2.1.1B	No thresholds							
	2.1.2A Flammable aerosols	All	20 litres	450 litres	450 litres	450 litres	450 litres	450 litres	450 litres	20 litres

(IMPORTANT – Table 17.1 must be read with Notes for Plan Users and Permitted Activity Rule 17.5.1) *[Amended by Plan Change 13, 2 September 2013]*

Substance	**HSNO sub-class and hazard classification**	Substance	**Group 1: Residential Zones and residential activities in all other zones.**	**Group 2: Activity, Industry, Stadium, Proposed Harbourside Zones, excluding residential activities.**	**Group 3: Campus Zone, excluding residential activities.**	**Group 4: Rural and Rural Residential Zone, excluding residential, forestry and timber treatment activities.**	**Group 5: Forestry and timber treatment activities in the Rural and Rural Residential Zone.**	**Group 6: Port Zone, excluding residential activities.**	**Group 7: Airport Zone, excluding residential activities.**	**Group 8: Major Facilities (Mercy Hospital) Zone.**
Flammable liquids (stored above ground in containers with individual capacity ≤450 litres)	3.1A Liquid: Very high hazard (flash point <23°C, initial boiling point ≤35°C)	Petrol	• 10 litres inside dwelling. • 50 litres outside dwelling. (No storage in metal drums)	• 50 litres (any storage except metal drums). • 250 litres in Dangerous Goods cabinet approved to AS 1940. • 420 litres in approved HSNO 'Type' stores.	2000 litres		• 50 litres (any storage except metal drums). • 250 litres in Dangerous Goods cabinet approved to AS 1940 • 420 litres in approved HSNO 'Type' stores.			• 10 litres inside dwelling. • 50 litres outside dwelling. (No storage in metal drums)
		All other	0	50 litres						0
	3.1B Liquid: High hazard (FP<23°C, IBP>35°C)	All – e.g. acetone, paint spray thinners, pure alcohol	10 litres	• 10 litres (any storage). • 250 litres in Dangerous Goods cabinet approved to AS 1940. • 450 litres in approved HSNO 'Type' stores. • Large scale retail activities only: 1500 litres in containers of up to 5 litres each. • Group 6: Port Zone are permitted to hold 1500 litres in containers of up to 20 litres where a test location certificate is held						100 litres stored in accordance with HSNO requirements.
	3.1A Petrol plus 3.1B	Petrol plus any 3.1B substance – cumulative total limit	• 10 litres inside dwelling. • 50 litres outside dwelling. (No storage in metal drums)	• 50 litres (any storage except metal drums). • 250 litres in Dangerous Goods cabinet approved to AS 1940. • 420 litres in approved HSNO 'Type' stores.	2000 litres		• 50 litres (any storage except metal drums). • 250 litres in Dangerous Goods cabinet approved to AS 1940. • 420 litres in approved HSNO 'Type' stores.	2000 litres	• 50 litres (any storage except metal drums). • 250 litres in Dangerous Goods cabinet approved to AS 1940. • 420 litres in approved HSNO 'Type' stores.	• 10 litres inside dwelling. • 50 litres outside dwelling. (No storage in metal drums)

(IMPORTANT – Table 17.1 must be read with Notes for Plan Users and Permitted Activity Rule 17.5.1) *[Amended by Plan Change 13, 2 September 2013]*

Substance	HSNO sub-class and hazard classification	Substance	Group 1: Residential Zones and residential activities in all other zones.	Group 2: Activity, Industry, Stadium, Proposed Harbourside Zones, excluding residential activities.	Group 3: Campus Zone, excluding residential activities.	Group 4: Rural and Rural Residential Zone, excluding residential, forestry and timber treatment activities.	Group 5: Forestry and timber treatment activities in the Rural and Rural Residential Zone.	Group 6: Port Zone, excluding residential activities.	Group 7: Airport Zone, excluding residential activities.	Group 8: Major Facilities (Mercy Hospital) Zone.
Flammable liquids (stored above ground in containers with individual capacity ≤450 litres)	3.1C Liquid: Medium hazard (FP≥23°C, but ≤35°C)	All – e.g. kerosene, aviation kerosene	• 20 litres inside dwelling. • 50 litres outside dwelling.	• 10 litres (any storage). • 250 litres in Dangerous Goods cabinet approved to AS 1940. • 450 litres in approved HSNO 'Type' stores. • Large scale retail activities only: 1500 litres in containers of up to 5 litres						• 20 litres inside dwelling. • 50 litres outside dwelling.
	3.1D Liquid: Low hazard (FP>60°C, but ≤93°C)	All – e.g. diesel, petroleum fuel oils	• 20 litres inside dwelling. • 209 litres outside dwelling	450 litres						• 20 litres inside dwelling. • 209 litres outside dwelling
Flammable liquids (stored above ground in containers with individual capacity >450 litres)	3.1A Liquid: Very high hazard (flash point <23°C, initial boiling point ≤35°C)	Petrol	0	• Certified Single skin tanks: 0. • Certified Double skin tanks: 600 litres.			• Certified Single skin tanks: 0. • Certified Double skin tanks: 2000 litres.	• Certified Single skin tanks: 0. • Certified Double skin tanks: 600 litres.		0
		All others	0							
	3.1B Liquid: High hazard (FP<23°C, IBP>35°C)	All – e.g. acetone, paint spray thinners, pure alcohol	0	• Certified Single skin tanks: 0. • Certified Double skin tanks: 600 litres.						0
	3.1C Liquid: Medium hazard (FP≥23°C, but ≤35°C)	All – e.g. kerosene, aviation kerosene	0	• Certified Single skin tanks: 450 litres. • Certified Double skin tanks: 2000 litres.						0

(IMPORTANT – Table 17.1 must be read with Notes for Plan Users and Permitted Activity Rule 17.5.1) *[Amended by Plan Change 13, 2 September 2013]*

Substance	HSNO sub-class and hazard classification	Substance	Group 1: Residential Zones and residential activities in all other zones.	Group 2: Activity, Industry, Stadium, Proposed Harbourside Zones, excluding res activities.	Group 3: Campus Zone, excluding residential activities.	Group 4: Rural and Rural Residential Zone, excluding residential, forestry and timber treatment activities.	Group 5: Forestry and timber treatment activities in the Rural and Rural Residential Zone.	Group 6: Port Zone, excluding residential activities.	Group 7: Airport Zone, excluding residential activities.	Group 8: Major Facilities (Mercy Hospital) Zone.
Flammable liquids (stored above ground in containers with individual capacity >450 litres)	3.1D Liquid: Low hazard (FP>60°C, but ≤93°C)	All – e.g. diesel, petroleum fuel oils	• Certified Single skin tanks: 450 litres. • Certified Double skin tanks: 600 litres. • Certified Super vault tanks constructed to South Western Research Institute (SWRI) standards: 10000 litres.	• Certified Single skin tanks: 450 litres. • Certified Double skin tanks: 2000 litres. • Certified Super vault tanks constructed to SWRI standards: 10000 litres.	• Single skin tanks: 450 litres. • Double skin tanks: 2000 litres. • Super vault tanks constructed to SWRI standards: 10000 litres.	• Certified Single skin tanks: 450 litres. • Certified Double skin tanks: 5000 litres. • Certified Super vault tanks constructed to SWRI standards: 30000 litres.		• Certified Single skin tanks: 450 litres. • Certified Double skin tanks: 20000 litres. • Certified Super vault tanks constructed to SWRI standards: 30000 litres	• Certified Single skin tanks: 450 litres. • Certified Double skin tanks: 10000 litres. • Certified Super vault tanks constructed to SWRI standards: 30000 litres.	Certified double skin tank/s: 5200 litres
Flammable liquids (stored below ground)	3.1A, 3.1B, 3.1C, 3.1D	All	0							
Flammable liquids (any storage)	3.2A, 3.2B & 3.2C Liquid desensitised explosive: High, medium & low hazard	All	0							

(IMPORTANT – Table 17.1 must be read with Notes for Plan Users and Permitted Activity Rule 17.5.1) *[Amended by Plan Change 13, 2 September 2013]*

Substance	HSNO sub-class and hazard classification	Substance	Group 1: Residential Zones and residential activities in all other zones.	Group 2: Activity, Industry, Stadium, Proposed Harbourside Zones, excluding residential activities.	Group 3: Campus Zone, excluding residential activities.	Group 4: Rural and Rural Residential Zone, excluding residential, forestry and timber treatment activities.	Group 5: Forestry and timber treatment activities in the Rural and Rural Residential Zone.	Group 6: Port Zone, excluding residential activities.	Group 7: Airport Zone, excluding residential activities.	Group 8: Major Facilities (Mercy Hospital) Zone.
Flammable solids	4.1.1A Readily combustible solids and solids that may cause fire through friction: Medium hazard	All	0	50kg	50kg	50kg	50kg	50kg	50kg	0
	4.1.1B Readily combustible solids and solids that may cause fire through friction: Low hazard	All	0	500kg	500kg	500kg	500kg	500kg	500kg	0
	4.1.2A&B Self-reactive: Types A&B	All	0	50kg	50kg	50kg	50kg	50kg	50kg	0
	4.1.2C-G Self-reactive: Types C-G	All	0	500kg	500kg	500kg	500kg	500kg	500kg	0
	4.1.3A-C Solid desensitized explosives	All	0	0	5kg	0	0	0	0	0
Flammable solids	4.2A&B Spontaneously combustible – Pyrophoric substances: High hazard & Self-heating substances: Medium hazard	All	0	50kg	50kg	50kg	50kg	50kg	50kg	0
	4.2C Spontaneously combustible – Self-heating substances: Low hazard	All	0	500kg	500kg	500kg	500kg	500kg	500kg	0

(IMPORTANT – Table 17.1 must be read with Notes for Plan Users and Permitted Activity Rule 17.5.1) *[Amended by Plan Change 13, 2 September 2013]*

Substance	HSNO sub-class and hazard classification	Substance	Group 1: Residential Zones and residential activities in all other zones.	Group 2: Activity, Industry, Stadium, Proposed Harbourside Zones, excluding residential activities.	Group 3: Campus Zone, excluding residential activities.	Group 4: Rural and Rural Residential Zone, excluding residential, forestry and timber treatment activities.	Group 5: Forestry and timber treatment activities in the Rural and Rural Residential Zone.	Group 6: Port Zone, excluding residential activities.	Group 7: Airport Zone, excluding residential activities.	Group 8: Major Facilities (Mercy Hospital) Zone.
	4.3A&B Solids that emit flammable gas when wet: High & medium hazard	All	0	50kg	50kg	50kg	50kg	50kg	50kg	0
	4.3C Solids that emit flammable gas when wet: Low hazard	All	0	500kg	500kg	500kg	500kg	500kg	500kg	0
Flammable solids	4.2A&B Spontaneously combustible – Pyrophoric substances: High hazard & Self-heating substances: Medium hazard	All	0	50kg	50kg	50kg	50kg	50kg	50kg	0
	4.2C Spontaneously combustible – Self-heating substances: Low hazard	All	0	500kg	500kg	500kg	500kg	500kg	500kg	0
	4.3A&B Solids that emit flammable gas when wet: High & medium hazard	All	0	50kg	50kg	50kg	50kg	50kg	50kg	0
	4.3C Solids that emit flammable gas when wet: Low hazard	All	0	500kg	500kg	500kg	500kg	500kg	500kg	0

(IMPORTANT – Table 17.1 must be read with Notes for Plan Users and Permitted Activity Rule 17.5.1) *[Amended by Plan Change 13, 2 September 2013]*

Substance	HSNO sub-class and hazard classification	Substances	Group 1: Residential Zones and residential activities in all other zones.	Group 2: Activity, Industry, Stadium, Proposed Harbourside Zones, excluding residential activities.	Group 3: Campus Zone, excluding residential activities.	Group 4: Rural and Rural Residential Zone, excluding residential, forestry and timber treatment activities.	Group 5: Forestry and timber treatment activities in the Rural and Rural Residential Zone.	Group 6: Port Zone, excluding residential activities.	Group 7: Airport Zone, excluding residential activities.	Group 8: Major Facilities (Mercy Hospital) Zone.
Oxidising substances	5.1.1A-C Liquids & solids	All	10 litres if liquid, 10kg if solid	200 litres if liquid, 200kg if solid	200 litres if liquid, 200kg if solid	No threshold	200 litres if liquid, 200kg if solid	200 litres if liquid, 200kg if solid	200 litres if liquid, 200kg if solid	10 litres if liquid, 10kg if solid
	5.1.2A Gases	Oxygen (Except as stored and used in accordance with HSNO requirements within medical facilities)	5.5m^3	1000m^3	500m^3	200m^3	200m^3	200m^3	200m^3	No limit if stored and used in accordance with HSNO requirements within medical facilities.
		Nitrous oxide (Except as stored and used in accordance with HSNO requirements within medical facilities)	0	30 x 8-gram nitrous oxide cartridges for catering purposes only	0					No limit if stored and used in accordance with HSNO requirements within medical facilities.
		Chlorine	0							0
	5.2A-G Organic Peroxide: Types A-G	All – e.g. MEKP Polyester resin catalyst	0.5 litres	16 litres	0.5 litres	0.5 litres	0.5 litres	0.5 litres	0.5 litres	0.5 litres in addition to Steris 20 Concentrate: 70kg
Toxic substances	6.1A-C Acutely toxic	Anhydrous ammonia refrigerant	0	140kg	0	0	0	140kg	140kg	0
		Chlorine	0	0	0	0	0	0	0	0
		All other substances	0	20 litres if liquid, 20kg if solid	20 litres if liquid, 20kg if solid	20 litres if liquid, 20kg if solid	20 litres if liquid, 20kg if solid	20 litres if liquid, 20kg if solid	20 litres if liquic 20kg 20 kg if so	0
	6.1D&E	Sodium Chloride	5kg	200kg	1000kg	1000kg	1000kg	1000kg	1000kg	5kg
	6.1D&E	All other substances	1kg	200kg	1000kg	200kg	1000kg	1000kg	1000kg	1kg

(IMPORTANT – Table 17.1 must be read with Notes for Plan Users and Permitted Activity Rule 17.5.1) *[Amended by Plan Change 13, 2 September 2013]*

Substance	HSNO sub-class and hazard classification	Substances	Group 1: Residential Zones and residential activities in all other zones.	Group 2: Activity, Industry, Stadium, Proposed Harbourside Zones, excluding residential activities.	Group 3: Campus Zone, excluding residential activities.	Group 4: Rural and Rural Residential Zone, excluding residential, forestry and timber treatment activities.	Group 5: Forestry and timber treatment activities in the Rural and Rural Residential Zone.	Group 6: Port Zone, excluding residential activities.	Group 7: Airport Zone, excluding residential activities.	Group 8: Major Facilities (Mercy Hospital) Zone.
Toxic substances	6.3A&B Skin irritant	All	1kg	2000kg	1000kg	2000kg	1000kg	1000kg	1000kg	1kg
	6.4A Eye irritant	Cement, Hydrated Lime and Burnt Lime	400kg	50 tonne	1000kg	30 tonne	30 tonne	100 tonne	1000kg	400kg
		Sodium Chloride	5kg	200kg	1000kg	1000kg	1000kg	1000kg	1000kg	5kg
		All Others	1kg	2000kg	1000kg	2000kg	1000kg	1000kg	1000kg	1kg
	6.5A&B Respiratory & contact sensitizers	Cement, Hydrated Lime and Burnt Lime	400kg	50 tonne	1000kg	30 tonne	30 tonne	100 tonne	1000kg	400kg
		All Others	1kg	2000kg	1000kg	2000kg	1000kg	1000kg	1000kg	1kg
	6.6A&B Human mutagens	All	1kg	2000kg	1000kg	2000kg	1000kg	1000kg	1000kg	1kg
	6.7A&B Carcinogens	All	1kg	200kg	1000kg	200kg	1000kg	1000kg	1000kg	1kg
	6.8A-C Human reproductive or developmental toxicants	All	0	0	0	0	0	0	0	0
	6.9A&B Substances affecting human target organs or systems	All	0	0	0	0	0	0	0	0
Radioactive materials	These substances are controlled through the Radiation Protection Act 1965 rather than through HSNO.	All	Quantities specified in the 'Type A' transport package limit, as identified in the International Atomic Energy Agency(IAEA) Regulations for the Safe Transport of Radioactive Material. Examples: domestic smoke detectors, demonstration radioactive sources in school laboratories.							

(IMPORTANT – Table 17.1 must be read with Notes for Plan Users and Permitted Activity Rule 17.5.1) *[Amended by Plan Change 13, 2 September 2013]*

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Corrosives	8.1A Substances corrosive to metals	All	5 litres	1000 litres	1000 litres	1000 litres	5000 litres	1000 litres	1000 litres	5 litres
	8.2A-C Substances corrosive to skin	Cement, Hydrated Lime and Burnt Lime	400kg	50 tonne	1000kg	30 tonne	30 tonne	100 tonne	1000kg	400kg
		All	5 litres	1000 litres	1000 litres	1000 litres	5000 litres	1000 litres	1000 litres	5 litres
	8.3A Substances corrosive to the eye	Cement, Hydrated Lime and Burnt Lime	400kg	50 tonne	1000kg	30 tonne	30 tonne	100 tonne	1000kg	400kg
		All	5 litres	1000 litres	1000 litres	1000 litres	5000 litres	1000 litres	1000 litres	5 litres
Ecotoxics	9.1A-D Aquatic ecotoxics and 9.2A-D Soil ecotoxics		See base Class thresholds NB- Where a substance requires resource consent and also has an ecotoxic class, the ecotoxcity shall be taken into consideration as part of Assessment Matter 17.6.8							
	9.3A-C Terrestrial vertebrate ecotoxics	All	See base Class thresholds NB- Where a substance requires resource consent and also has an ecotoxic class, the ecotoxcity shall be taken into consideration as part of Assessment Matter 17.6.8							
	9.4 A-C Terrestrial invertebrate ecotoxics	All	See base Class thresholds NB- Where a substance requires resource consent and also has an ecotoxic class, the ecotoxicity shall be taken into consideration as part of Assessment Matter 17.6.8							