Planning Unit

Application for Resource Consent

Resource Management Act 1991 - Form 9
Send or deliver your application to: Selwyn District Council, PO Box 90, Rolleston 7643
For enquiries phone: (03) 347-2868
For enquiries email: planninginfo@selwyn.govt.nz

1. Application

This form is to be used for an application as required under Section 88 of the Resource Management Act 1991 and must be accompanied by the required fee, together with an assessment of environmental effects, plans and a Certificate of Title and any other supporting information. If this application is for a subdivision then a geotechnical report must be attached.

This application is for:

☑ Land Use Consent ☐ Subdivision Consent

Has a copy of the application been submitted electronically? i.e. on a flash drive or disk.
(Note: Providing an electronic copy will reduce the overall administration costs associated with the application.)

☑ Y ☐ N

2. The Agent / Consultant

Name of Agent: VCS Environmental - Sean Sawyers

Landline: 03 728 9674 x 293 Mobile: 021 816 045

Email: seans@vcs.net.nz

Postal Address: PO Box 453
Greymouth 7840

3. The Applicant

(Note: The Applicant is responsible to the Council for all costs associated with this application)

Full Name: Pest Control Research LP

Landline: 03 372 1580

Email: info@pcr.co.nz

Postal Address: PO Box 7223
Christchurch 8035

Signature of Applicant (Or person authorised to sign on behalf of Applicant)

Signature:..... Date: 04/12/14

Name: Sean Sawyers

4. The Site

Location of the proposed activity: 8 Centrum Lane, Izone Business Park, Rolleston.

Legal description of application site: Lot 636 Deposited Plan 464084.

5. The Proposal

Describe what is to be carried out on the site, including a list of the ways it does not comply with the Selwyn District Plan:

The storage and manufacture of bait products for pest control containing vertebrate toxic agents as the active ingredient.

Was there any pre-application advice / discussion prior to this application being filled out?

☑ Y ☐ N

If Yes, what was the Planner's Name?: Tim Harris

6. Attachment

Assessment of any effects on the environment in accordance with Schedule 4 of the Resource Management Act 1991.

I attach:

☑ AEE ***This section MUST be completed to a level of detail that corresponds with the scale and significance of the effects that the proposed activity may have on the environment.*** (Use additional pages as necessary).

☑ A recent search of the Certificate of Title

☑ Details of proposal including plans

☐ Sufficient detail to satisfy the requirements of the NES for Assessing & Managing Contaminants in Soil to Protect Human Health

☐ Geotechnical report (subdivision only)

7. Other Applications

Have you applied for, or are you required to apply for, any other resource consents for this project, either from the Selwyn District Council or Environment Canterbury, and if so, what type?

		Has been applied for	Is required to be applied for	Has been obtained
Selwyn District Council	Subdivision Consent	☐	☐	☐
	Other Land Use Consent	☐	☐	☐
Environment Canterbury	Water Permit	☐	☐	☐
	Discharge Permit	☐	☐	☐
	Coastal Permit	☐	☐	☐

OR

☑ No additional resource consents are needed for the proposed activity

Have you applied for a Project Information Memorandum (PIM) or a building consent for this project? ☐ Y ☐ N

If so, what is the PIM/BC number?

8. Notification

Are you requesting the application to be publicly notified? ☐ Y ☑ N

Are you requesting the application to be limited notified (as not all parties considered affected have provided their written approval)
(Please note it is at the discretion of Council if an application should be limited notified) ☑ Y ☐ N

Have all the persons you consider to be adversely affected given their written approval to the proposal? ☐ Y ☑ N
(ensure affected persons form is completed & plans signed)

9. Privacy Information

All the relevant information on this form is required to be provided under the Resource Management Act 1991 for Selwyn District Council to process your application. Under this Act this information has to be made available to members of the public, including business organisations. The information contained in this application may be made available to other departments of the Council. You have the right to access the personal information held about you by the Council which can be readily retrieved. You can also request that the Council correct any personal information it holds about you.

10. Information

1. All applicants are asked to check the accuracy of the information supplied. Inaccuracies in information supplied can cause difficulties at a later date, such as additional costs, delays and legal proceedings initiated by the Council and/or by other persons.
2. If resource consent is granted the applicant has a legal obligation to comply with any conditions of the consent.
3. The required **Application Fee** must be paid before processing of any application will start.
4. A further invoice will be sent **to the applicant** when the processing of this application has been completed if the cost of processing it exceeds the fee paid (excluding fixed fee applications). If you are an agent for the owner and do not wish to be legally liable for additional fees then you should ask the **owner** to sign the form.
5. At the completion of the process any refunds due will be issued to the **person who paid the fee** (excluding fixed fee applications).
6. Dependant on the nature of the proposal other consents/licences may also be requested under such legislation as the Health Act 1956 and the Sale of Liquor Act 1989.
7. The application for resource consent under the Resource Management Act 1991 is in addition to any building consent application required under the Building Act 2004.
8. The written approval of persons the Council considers may be adversely affected by the proposal may be required as part of the application, if it is to be processed on a non-notified basis. This will be determined after the application has been lodged and assessed, and if necessary, a site visit carried out.
9. Consultation with neighbours and other affected persons is at the discretion of and responsibility of the applicant.
10. When this application is lodged with the Selwyn District Council, it becomes public information and is available for public inspection. If there is commercially sensitive information in the proposal, please let us know.
11. **If your application is inadequate, it may be returned unprocessed**. If additional information is required, you will be advised and processing of the application will be suspended until the information is received. To avoid delays and cost it is in your best interests to submit a complete application.

Office Check

☐ Information received and complete **yes / no** Resource consent #: _____ Date: _____

☐ Receipt #: _____

APPLICATION FOR RESOURCE CONSENT

Manufacture of Poison Bait Products
8 Centrum Lane, Rolleston

Consent authority	Selwyn District Council
Applicant	Pest Control Research LP
Postal address	PO Box 7223 Christchurch 8240
Telephone number	+64 3 372 1580
Email address	info@pcr.co.nz
Date submitted	8 December 2014

Contents

1. Background

1.1. Scope of application

Pest Control Research LP (PCR) has leased newly constructed premises located at 8 Centrum Lane (Lot 636, Deposited Plan 464084) in the Izone Business Park at Rolleston, and proposes to relocate its administration, manufacturing, warehousing and distribution operations from several existing sites spread around Christchurch.

PCR is seeking resource consent from Selwyn District Council for activities associated with the manufacture and storage of a range of ready to use bait products containing a hazardous substance as the active ingredient.

Such products are widely used for control of vertebrate pest species including possums, rodents and rabbits.

No intentional discharge of contaminants is proposed. For the avoidance of doubt this includes any discharges to the land, air and water.

1.2. Duration of consent sought

While the product mix may change over time PCR is seeking a resource consent of 35 years duration for both manufacture and storage activities.

The principal advantages of the period are security for future planning and investment, and the ability to enter into long term contracts for the supply of ingredients.

Section 128 of the Resource Management Act provides for reviewing the conditions of resource consents to deal with any adverse effect on the environment that may arise from the exercise of the consent. Therefore, conditions can be reviewed at any time irrespective of the duration of the consent.

1.3. Active ingredient descriptions and hazard classifications

Ready to use cereal pellet baits will be made to a variety of formulations and physical sizes, and each product line will incorporate one of the active ingredients[1] specified in the following table.

Common name of active ingredient	CAS number	HSNO classification(s)
Brodifacoum	56073-10-0	6.1A, 6.4A, 6.9A, 9.1A, 9.3A
Cholecalciferol	67-97-0	6.1B, 6.4A, 6.8B, 6.9A, 9.1D, 9.3A
Pindone	83-26-1	6.1B, 6.9A, 9.1A, 9.3A
Sodium fluoroacetate (1080)	62-74-8	6.1A, 6.1C, 6.3B, 6.4A, 6.8A, 6.9A, 9.1A, 9.2B, 9.3A, 9.4A

No chemical processing will be undertaken on site. All active ingredients are manufactured overseas and shipped to New Zealand in bulk quantities from time to time as demand requires.

Other than dilution through combining with non-toxic excipients the manufacture process does not utilise any chemical relation or modification of substances.

[1] Manufactured products will generally have a reduced hazard classification

1.4. Storage quantities

The manufacturing activity will entail storage of both active ingredients and manufactured product at the site in quantities exceeding the permitted activity threshold as detailed in the Selwyn District Plan.

It is proposed to store the maximum quantities of vertebrate toxic agents specified in the following table.

Common name of active ingredient	CAS number	Active ingredient qty	Manufactured product qty
Brodifacoum	56073-10-0	1,000kg	100,000kg
Cholecalciferol	67-97-0	1,000kg	100,000kg
Pindone	83-26-1	1,000kg	200,000kg
Sodium fluoroacetate (1080)	62-74-8	1,500kg	200,000kg

1.5. Hours of operation

It is not proposed to limit hours of operation to any particular period, however it is expected that most activities at the site will normally be conducted during the hours of 7am to 6pm from Monday to Friday inclusive.

Extended hours (including weekends and public holidays) may be required to fulfil large orders during periods of high demand, or to operate around planned outages such as may be necessary for equipment maintenance and the like.

Heavy vehicle movements to and from the site will be relatively insensitive to hours of operation with most confined to daylight hours on weekdays to align with customer and supplier requirements.

1.6. Production capacity

The manufacture of toxin based products will be undertaken using a dedicated plant with a production capacity of 1,500kgs per hour.

1.7. About the applicant

PCR[2] is a Canterbury business established fourteen years ago with the goal of developing and improving technology for vertebrate pest control, monitoring and ecosystem management in New Zealand.

Among notable business achievements PCR is the only privately owned manufacturer of non-toxic cereal bait for vertebrate pest control in New Zealand, and is a preferred supplier to a number of South Island contractors.

In addition to the manufacture of non-toxic bait, the business also undertakes the manufacture of several Pindone bait products, and other product lines including traps, monitoring devices and associated consumables.

The business takes pride in being New Zealand's only independent organisation focussed on researching, developing and deploying effective, humane, environmentally and socially acceptable tools for the professional pest control and environmental management sector.

[2] PCR is a limited partnership jointly owned by Malcolm Thomas (51%) and the West Coast Regional Council (49%).

2. Regulatory Setting

2.1. Selwyn District Council

The Selwyn District Plan provides a regulatory framework for the management of activities involving hazardous substances in the Selwyn District.

2.1.1. Policy objectives

Policy Objective B3.2.2 requires that "adequate measures are taken to avoid, remedy or mitigate any adverse effects to human health, to the amenity of townships, the rural environment and to the natural environment arising from the manufacture, storage, transport on water bodies and disposal of hazardous substances".

Policy Objective B3.2.2 requires that "adequate measures are taken during the manufacture, storage and disposal of hazardous substances to avoid, remedy or mitigate any adverse effects to the health of livestock and other farm animals, of domestic animals, and of flora and fauna, and to the life sustaining capacity and amenity values of water-bodies, land and soil resources".

2.1.2. Rules

The manufacture of "any hazardous substance….as either a product or a by-product" in the Business 2A Zone is a discretionary activity and as such requires resource consent to be obtained.

Additionally the storage of Class 6 (toxic) substances exceeding 100 kilograms [3] in net quantity is a discretionary activity.

Refer to the following table for District Plan references.

Selwyn District Plan Reference	Description of Activity	Activity Status
20.1.3	Storage of hazardous substances	Discretionary
20.2.2.1	Manufacture of hazardous substances	Discretionary

2.2. Environmental Protection Authority

The Environmental Protection Authority (EPA) administers the Hazardous Substances and New Organisms (HSNO) Act and an associated suite of legislation which aims to protect the environment, and the health and safety of communities, by preventing or managing the adverse effects of hazardous substances and new organisms.

All hazardous substances are required to have approval under the HSNO Act, which imposes controls that are designed to manage any risk from using, storing, transporting and disposing of the substance. Such legislation applies to the management of both active ingredients and formulated products.

PCR will be seeking EPA approval for several ready-to-use bait formulations containing the active ingredients specified in Section 1.3 of the application.

[3] Active ingredient quantity

2.3. Ministry for Primary Industries

The Ministry for Primary Industries (MPI) is responsible for the administration of the Agricultural Compounds and Veterinary Medicines (ACVM) Act and associated regulations which seek to manage risks to animal welfare, agricultural security, public health and trade from the use of agricultural compounds which includes most ready to use bait formulations containing a hazardous substances as the active ingredient.

2.3.1. Registration of products

Applicants wishing to sell formulations for vertebrate pest control in New Zealand must obtain registration for the product, which requires consideration of target and non-target risks, manufacturing processes and environmental fate.

PCR is seeking registration from MPI for a number of ready-to-use bait formulations containing the active ingredients specified in Section 1.3 of the application.

2.3.2. Registration of manufacturers

In addition the ACVM legislation establishes a regulatory framework to ensure that manufacturing risks are managed, and requires manufacturers and manufacturing locations to be approved and periodically audited.

PCR is an approved manufacturer (refer to Appendix 1) of ready-to-use bait formulations at its existing site in Christchurch and will be seeking MPI approval to transfer manufacturing activities to its new site at Izone.

2.4. Worksafe New Zealand

Worksafe New Zealand is the government agency responsible for administration of the Health and Safety in Employment (HSE) Act and associated legislation. HSE legislation seeks to manage hazards to employees, contractors and other persons that may be harmed as a consequence of activities in a workplace.

Worksafe New Zealand also undertakes certain regulatory functions pursuant to the HSNO Act including the certification of persons seeking statutory licences and the enforcement of HSNO legislation in a workplace context.

HSNO legislation requires that persons involved with any lifecycle phase of hazardous substances be Approved Handlers for that substance. Approved Handlers must demonstrate knowledge of HSNO legislation, properties of the substance, safe handling requirements, and what to do in an emergency.

Controlled Substance Licences (CSL) demonstrate that the holder is a fit and proper person to possess the substances they are in control of. Applicants undergo a background check which considers any criminal history that may be relevant.

All PCR employees are Approved Handlers and holders of a Controlled Substance Licence for all substances the business is approved to manufacture.

3. Environmental Setting

3.1. Site location

Lot 636 is located in the Izone Business Park on the western side of State Highway One in Rolleston. The site is zoned Business B2A and is surrounded on all sides by industrial activities or vacant industrial land awaiting development.

Industrial activities in the surrounding area include coal yards, timber processing, seed processing, building prefabrication, heavy engineering, a dairy factory and a distribution centre.

The nearest residential land is situated approximately 400m to the east. Beyond the industrial development, the surrounding land use is predominantly taken up by farming.

There are no locations with a high sensitivity such as hospitals or schools immediately adjacent or in near proximity to the site.

The map in Figure 1 shows the location of the site in relation to the township of Rolleston.

3.2. Built environment

The premises at 8 Centrum Lane were constructed in 2014 by the owner, the West Coast Regional Council (refer Certificate of Title in Appendix 6), to cater for a commercial or light industrial tenancy.

The building is approximately 900m2 in floor area, with an apex height of ten metres and a knee height of eight metres.

The building is sited at the rear of the property and extends to the rear and side boundaries. The remaining area at the front is taken up with bitumen surfacing for vehicle handling and car parking, and landscaping to comply with the Izone Business Park master plan, and building consent requirements.

The side and rear walls of the building are of tilt-slab concrete construction, while the front wall is profiled metal incorporating a large roller door for vehicle access, and several pedestrian doors giving access to the office space and factory floor. The building uses steel portal framing to support roof members and wall panels.

An office and amenity complex occupy approximately 50m2 in a corner at the front of the building (refer to floor plan in Figure 2).

A small laboratory is annexed to the rear of the office for analysis and quality assurance purposes. An internal door provides direct access into the factory.

The building is wheelchair accessible and has provision for mobility car parking and ablutions.

Figure 1: Location map

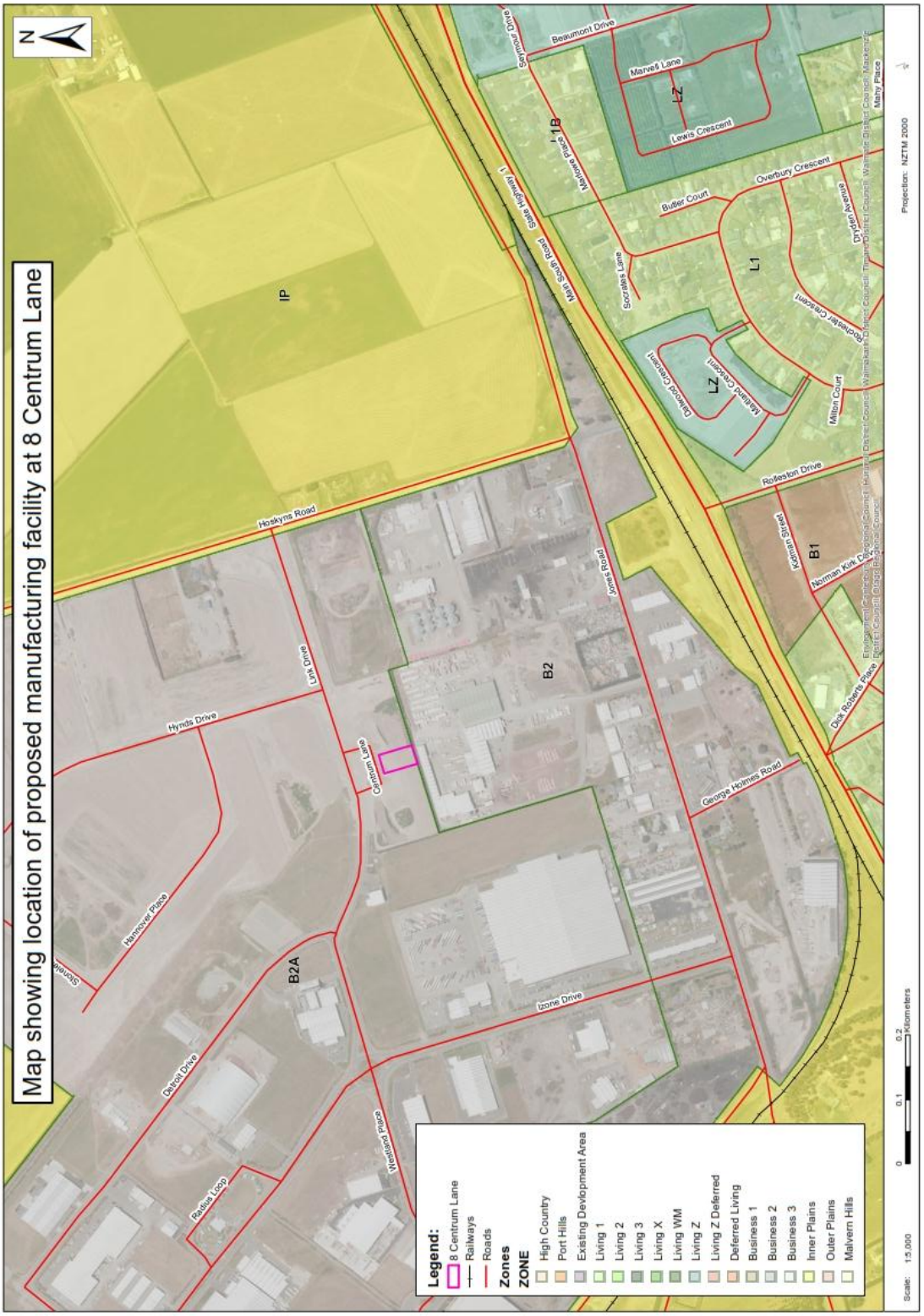
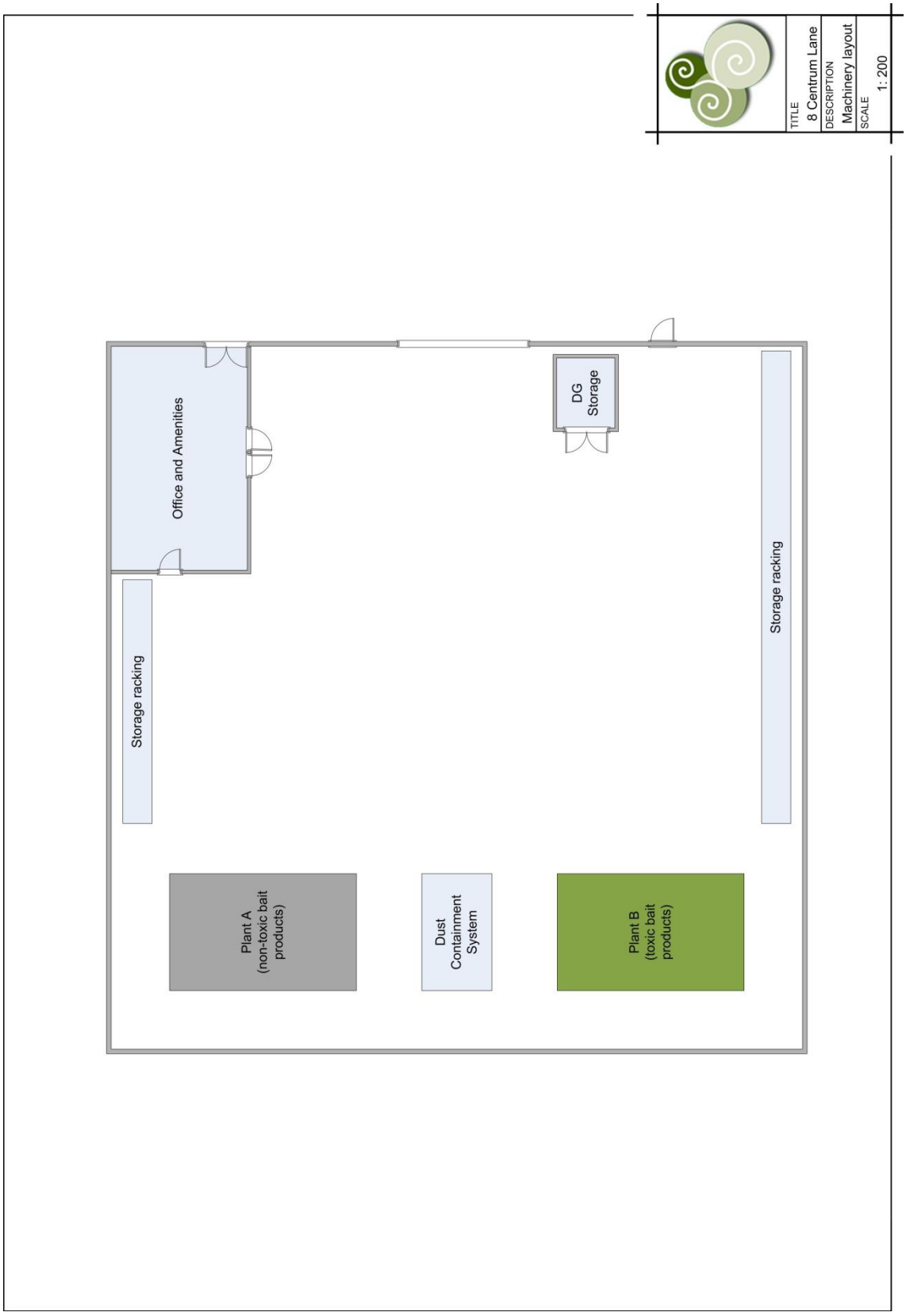


Figure 2: Floor plan



3.3. Natural environment

Lot 636 is located on flat land which the Environment Canterbury GIS database indicates is underlain by Eyre shallow sandy loam.

A geotechnical investigation undertaken by Aurecon in July 2009, corroborated by bore logs for wells within a 500 metre radius, indicated that the site is comprised of a thin layer of topsoil overlying gravels to depth.

The site and surrounding area are not known to have suffered any liquefaction or other damage during the Canterbury earthquakes of 2010 and 2011.

Other than storm water reticulation the nearest surface waterway is located approximately 400 metres away near Hoskyns Road.

3.4. Meteorology

The air environment is characterised by the presence of the Rolleston residential industrial area with a range of consented discharges from established businesses.

The nearest meteorological stations are located at Christchurch International Airport about 17 kilometres to the north-east, and at Lincoln 10 kilometres to the east.

The area is characterised by generally moderate to low wind speeds, less than 5 m/s, these occurring for about 73% of the time. Stable conditions occur on about 65% of nights throughout the year.

The predominant "strong" wind, speed greater than 8 metres/second, is from the north-east, north-west and south-west, for about 6.5% of the time.

The distribution of the annual winds is illustrated by the windrose shown in Figure 3 below.

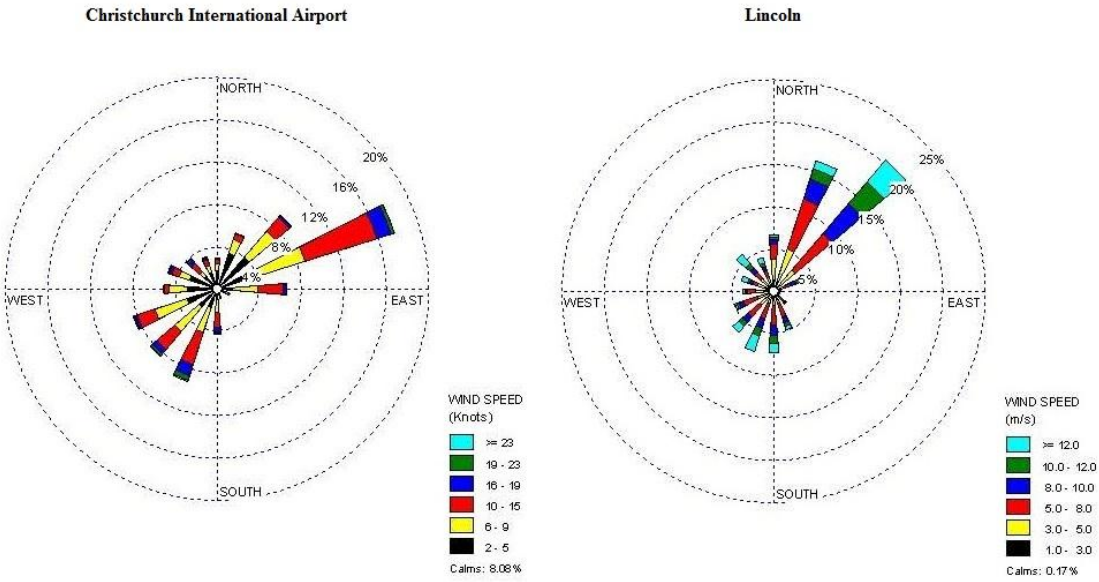


Figure 3: Windrose for Christchurch International Airport and Lincoln.

4. Process Description

4.1. General information

The pelletising process uses a radial ring pelletiser to rupture starch contained in the constituent grains by a combination of moisture, heat and pressure.

Manufacturing will be undertaken in a purpose designed facility, using a high-quality pellet press and associated mixing, loading, cooling, screening and packaging machinery of the type commonly used for the manufacture of stock-feed and similar products.

The plant will be of sufficient capacity to efficiently, effectively and safely manufacture goods as intended in this application and maintained to a standard that will comply with Ministry for Primary Industries requirements.

The business will operate two pelleting lines so that toxic and non-toxic products can be manufactured on separate machinery.

4.2. Process steps (refer to Figure 4)

The dust containment system is activated and allowed to perform its self-checking cycle to identify any preventative maintenance that may be required. The hopper will be placed into position.

Plant and equipment are inspected to ensure they are not contaminated by residue from prior batches or other products, and the pellet press die and cooling cycle are configured for the product being manufactured.

Next, the batch quantity is determined before requisite quantities of active ingredient and bulk excipients are added to the paddle mix hopper and weighed using an integrated load cell.

The paddle mixer thoroughly combines all components before the batch is elevated to a feed hopper for the pelletiser where further conditioning takes place to ensure optimum moisture content is attained.

The now homogenous mass is fed into the pellet press using a variable speed auger which ensures a consistent flow of material. Baits are extruded through a die and cut to length by mechanical shear as the apparatus revolves.

Bait then undergoes a cooling cycle during which a fan forces air through the bait to reduce the temperature to approximately room temperature.

Following the cooling cycle bait is sieved to remove any pellets not meeting the release specification, with non-conforming pellets recycled back into the manufacturing process.

After sieving the bait is transferred into the bagging-off hopper to be packaged and labelled before transfer to storage or distribution.

A sample of bait from every batch is diverted for analysis to ensure that ingredient content and physical properties are within the release specification.

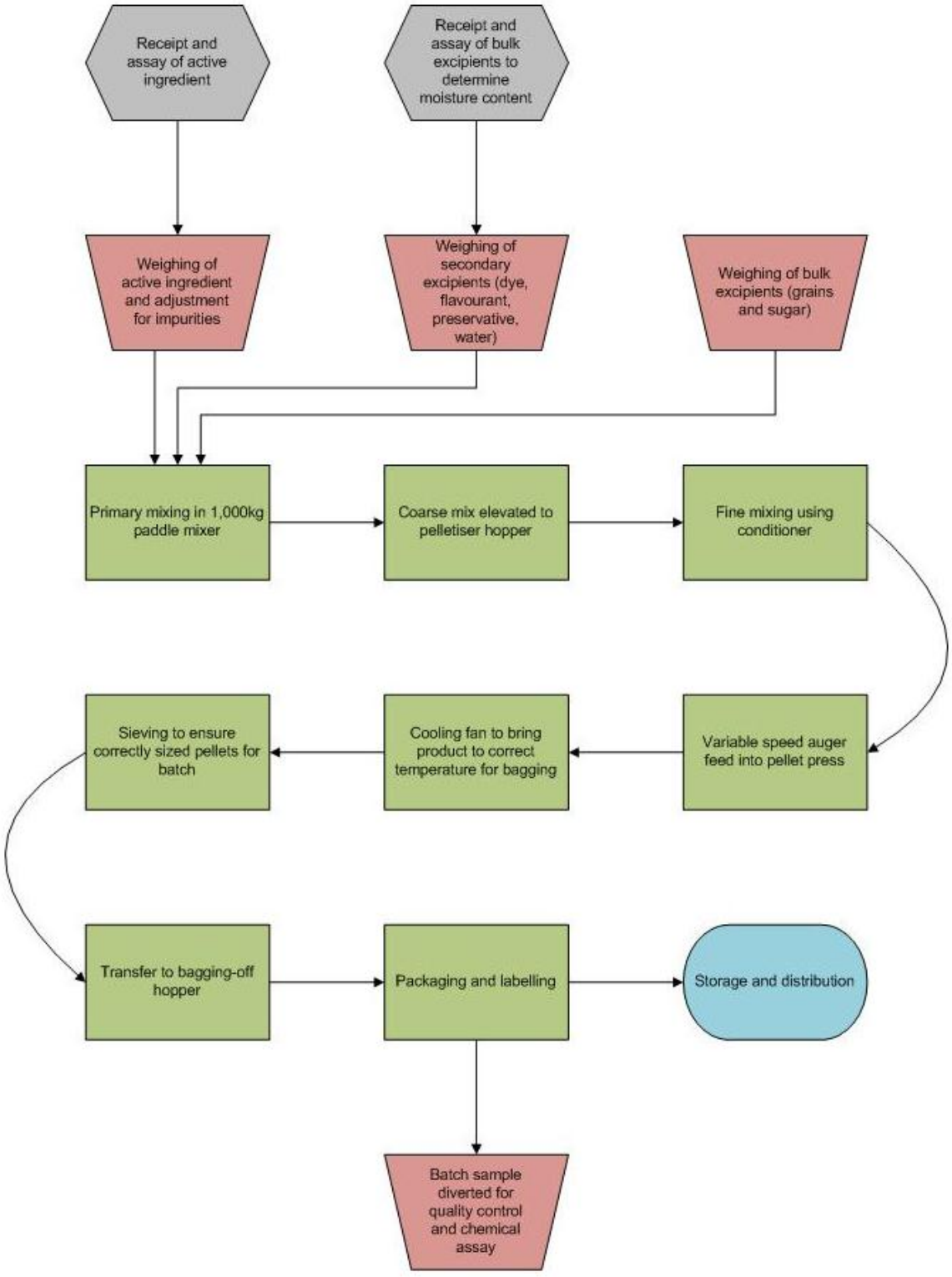


Figure 4: Manufacturing flow diagram

5. Assessment of Effects

5.1. Intentional discharges

There is no proposal for any intentional discharge to land, air or water from any hazardous substance manufacturing or storage activities for which consent is being sought.

5.2. Fugitive emissions

A low level of odour from attractants such as cinnamon incorporated within manufactured bait, and the constituent grains such as wheat, barley and maize may be detectable within the factory building, or from a short distance away, when the vehicle access door is open.

While the surrounding industrial setting is not overly sensitive to such emissions, the vehicle access roller door will normally be kept closed while bagging is taking place to minimise any emission of odour.

Attractants such as cinnamon incorporated into most manufactured baits are slightly volatile and degrade in contact with oxygen, which necessitates bait being packaged into impermeable bags for maximum shelf life. This packaging greatly reduces odorous emissions of the type described in this section.

5.3. Airborne particulate matter

Potential sources of dust from the manufacturing plant include the mixing hopper where bulk ingredients are added at the beginning of the manufacturing process, transfer points where bait formulation moves from one machine to another, the cyclone fan where pelletised bait is cooled and the bagging-off area where products are packaged.

Dust will have the same level of active ingredient concentration as the product being manufactured according to the following table:

Common name of active ingredient	CAS number	Concentration (w/w)
Brodifacoum	56073-10-0	0.025%
Cholecalciferol	67-97-0	0.8%
Pindone	83-26-1	0.05%
Sodium fluoroacetate (1080)	62-74-8	0.2%

To reduce dust emission the mixing hopper will be covered after charging with raw ingredients, and process machinery is well sealed at transfer points to limit internal dust within the building.

The dedicated plant used for the production of bait containing toxins will be fitted with a dust containment system to collect dust at process transfer points, cooling fan and the bagging-off hopper.

The containment system (refer Figure 5) will exhaust clean air to the factory interior and collect dust inside a wheeled hopper to be returned to the manufacturing process at intervals.

The dust containment system is electronically controlled, with several modes including manual and automated operation. The control unit will initiate a self-checking cycle at the beginning of each operating session, as well as periodic self-cleaning cycles.

The containment system has a capacity of 6,800 cubic metres per hour and incorporates Teflon filter sleeves with a pore size of 30 microns, which is less than half the particle size of all substances proposed to be manufactured in this application.

Failure of the baghouse dust containment system is unlikely given routine maintenance and replacement of filtration media, but in the event of a failure the system is programmed to automatically shut down the pelletising plant using an electrical interlock to ensure that no dust is discharged. The performance of this system will ensure that no contaminates are released during manufacture.

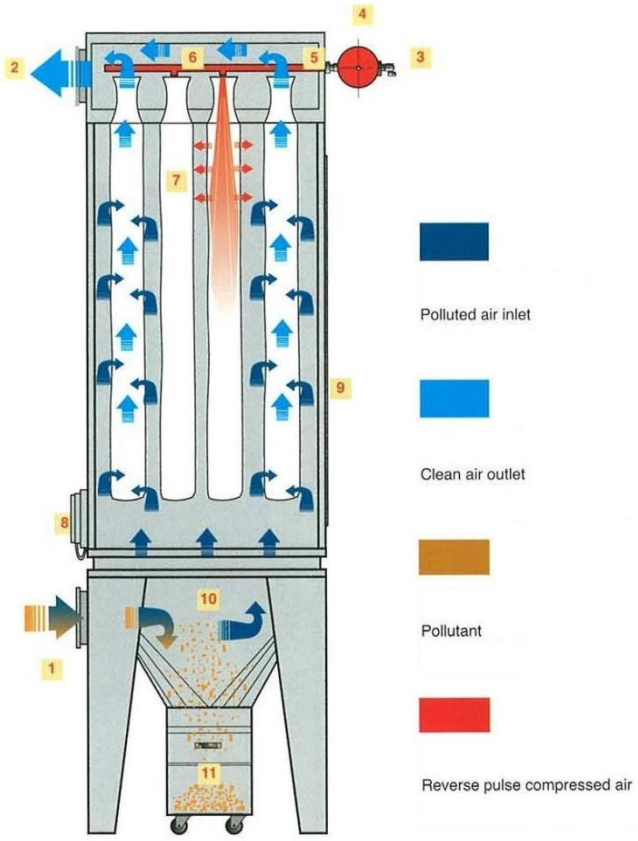


Figure 5: Schematic showing operation of dust containment unit

5.4. Waste streams

A small volume of waste material will be generated from maintenance and cleaning activities undertaken when the plant is being reconfigured for production of dissimilar product lines.

Such waste is typically comprised of cleaning materials such as cloth contaminated with dust or cereal residue containing toxins, and will be collected and held inside a wheelie bin designated for toxic waste streams and disposed of periodically at approved landfills or incinerated in specialist waste disposal facilities.

5.5. Aquatic environment

Vertebrate toxic agents may be harmful to aquatic organisms and wildlife in the event of an unintended discharge to water. The greatest risk to aquatic values would stem from an accidental release of active ingredient.

All substances described in this application are supplied in solid (powdered form) and are thus non-pooling. There is only a small volume of water added during the manufacturing process and little risk of any contaminants being discharged into surface waterways or drainage as a consequence of incidents causing a spillage.

In the event of a spill of either active ingredient or manufactured product, the nearest surface waterway is located approximately 400 metres away near Hoskyns Road, and not immediately at risk of contamination.

In any case all substances are readily water soluble causing them to dilute rapidly, as well as being affected by microbial decomposition causing them to degrade.

5.6. Landscape and visual effects

The manufacture of bait products containing toxins will take place inside the building envelope and will be conducted with the vehicle access roller door closed. Outwardly the premises do not have any distinctive or process specific feature that cause them to appear dissimilar to any other commercial or industrial building at Izone.

Hazardous substance warning signage will be installed at each vehicle gateway, and at all exterior and interior accesses to the factory building. This signage is required to display the hazard class of substances present at the location, but there is no requirement to identify individual substances. A range of hazardous substances are used by other business at Izone and hazardous substance warning signage is visible at the entrance to many premises. The display of such signage is not inconsistent with zoning.

5.7. Summary

The applicant is an established business that has produced bait products without incident at an existing manufacturing site, and has demonstrated compliance with the strict regulatory controls which apply to this type of activity.

The risks posed by storage and manufacture of products containing the active ingredients specified in this application are adequately managed by a suite of legislation and procedural controls that the applicant must comply with.

There are no intentional discharges proposed in this application, and the applicant has provided information about systems and procedures to manage the risk of accidental discharges.

6. Hazard Management

6.1. Health and safety

Personal Protective Equipment (PPE) is a health and safety requirement for persons engaged in the manufacture and handling of products containing vertebrate toxic agents.

The use of process specific PPE protects the health of employees and prevents toxins from being unintentionally transferred outside of the building by routes such as contaminated clothing.

Whilst equipment requirements differ according to process stage and the active ingredient being used, they will generally include full Tyvek style overalls, gloves, full face respirators and factory-only footwear.

Changing will take place in a specially designated area within the factory and staff must wash their hands immediately before leaving the factory environment.

6.2. Warning signage

Premises where hazardous substances are present are required to display warning signage at all points of entry.

The purpose of signage is to inform people (including emergency services) entering the location that hazardous substances are present, and provide information about precautions, such as the wearing of Personal Protective Equipment, that must be taken. Warning signage must be readable at a distance of 10 metres, and must identify by class all substances groups present at the site.

The premises will have signage of the type depicted below installed at each vehicle entrance and at all exterior and interior accesses to the factory building.

6.3. Operating procedures

To ensure that all formulations are produced to consistent standards, manufacturers must comply with the ACVM standard for Good Manufacturing Practice (GMP).

The GMP requires all manufacturing sites to operate in compliance with a Site Master File, which establishes controls and standards that must be complied with for each phase of manufacturing activity, as well as setting out general requirements for worker health and safety, and the management of active and non-active ingredients to prevent undue risk.

The Site Master File includes procedures that must be complied with in the event of a spill including immediate response action, and reporting requirements.

PCR has developed an Incident Response Plan (refer Appendix 2) for its manufacturing sites which sets out procedures to be followed in the event of any incident that may occur.

6.4. Storage of active ingredient

Active ingredients specified in this application are supplied in powdered form and will be stored within a designated dangerous store located inside the building envelope.

This storage is based on a converted shipping container and incorporates secondary containment for substances stored within.

Being water tight the store is unlikely to be adversely affected by any seismic event, including water inundation caused by liquefaction, or by sprinkler activations following a fire.

6.5. Storage of manufactured product

Manufactured product will be stored on 100 mm wooden pallets inside the building either placed onto the floor or onto single tier seismic racking with a beam height of 1.85m and a rated capacity of 2,400kg per beam.

There will be no storage of manufactured product outside the building envelope.

6.6. Seismic events

The ECan GIS database indicates that Lot 636 is underlain by “Eyre shallow sandy loam” and a geotechnical investigation undertaken by Aurecon in July 2009, corroborated by bore logs for nearby wells within a 500 m radius found in the ECan GIS database indicated specifically that the site is comprised of a thin layer of topsoil overlying gravels to depth.

The site and surrounding area is not known have suffered any liquefaction or other damage during the Canterbury earthquakes of 2010 and 2011.

Given ground level storage and a low beam height for elevated storage it is unlikely that a seismic event exceeding the design basis of the racking would cause any manufactured product to be spilt from packaging.

6.7. Sabotage and theft

The front of the building and yard are enclosed by an eight foot hurricane mesh fence topped with barbed wire, and accessed by two gates which provide drive through access for heavy vehicle combinations carrying goods to and from the facility.

The facility is equipped with a security system which includes recorded surveillance of the building. The alarm system is remotely monitored by a security company, and the facility manager or police can be alerted to any unauthorised access or suspicious activity which may occur.

All active ingredients are stored in a locked dangerous goods store located within the building. The dangerous goods store will be closed at all times except for receipting and decanting of chemicals as required. No manufactured product will be stored outside of the building.

The front of the building has a motion activated alarm which, once triggered, must be deactivated on the key panel inside the office within a specified period. The concrete panel construction used for the sides and rear of the building have no penetrations that could be forced for access.

Outside of working hours the yard will be secured and the alarm activated to comply with insurance requirements.

6.8. Hazardous substance spills

The building floor is a concrete slab which has been coated with a high performance epoxy paint system to create an impermeable surface, and all construction joints have been sealed to prevent build-up of dust or spilt materials, as well as eliminate pathways for contamination of underlying ground strata.

A spill kit will be located inside the building to contain any spillage that could potentially occur while active ingredients are being decanted or measured within the dangerous goods store, transferred across to the plant and added to the mixing hopper.

To further reduce risks posed during transfer and mixing of active ingredients, these actions will only take place while the vehicle access roller door is closed, so if an incident does occur no particles will be transferred beyond the factory environment.

Any spillage of manufactured product will be in the form of cylindrical cereal pellets, or partly formed pellets (depending upon manufacturing phase), which contain active ingredient at relatively low concentration.

As products containing vertebrate toxic agents are required to incorporate a green or blue dye to indicate toxicity, any spilt pellets will be readily identifiable against the grey floor coating so they can be easily contained and recovered.

While spill response actions are specific to each substance, they may include misting to limit any dust transfer and manual recovery to replace product in packaging and establish normal controls.

6.9. Fire safety

The main fire risk in the building is grain and sugar used in manufacture of bait products, and stockpiled manufactured bait products awaiting dispatch. Grains and sugars have a moderate flammability risk, with dust having a particularly high ignition potential in electrical environments.

The sides and rear of the building are of tilt-slab concrete construction to achieve a 180/180/180 fire resistance rating (FRR) in accordance with New Zealand Building Code requirements.

The building is protected by a monitored fire alarm and features a sprinkler system and warning system necessary for compliance with the fire safety requirements set out in the New Zealand Building Code.

Storage racking has been designed to ensure that bulk ingredients and manufactured products are stored in the lower part of the building to reduce fire risk to adjoining structures.

6.10. Ground water contamination

Manufactured products are stored in impermeable packaging to prevent spoilage from atmospheric moisture and evaporation of attractants incorporated in the product.

All manufactured product will be stored on wooden pallets which are at least 100m in height above floor level. Packaging which retains its integrity can be expected to repel water and even if immersed would not pose any risk of contaminating ground water.

6.11. Transportation

Inwards active ingredients are moved by specialist chemical transport companies to comply with insurance requirements, and deliveries will typically be required a maximum of six times per annum subject to demand.

Outwards goods will be moved by small number of operators with expertise in the transportation of bulk dangerous goods. Such operators are often involved with the eventual movement of bait products to loading sites for large scale application by end users, and as such have a high degree of competence with the carriage of these substances and the necessary requirements such as packaging and loading to comply with the Land Transport Rule for Dangerous Goods.

Outwards goods will be loaded under the supervision of PCR staff and drivers provided with Dangerous Goods documentation identifying the substance(s) and quantities carried, as well as a Material Safety Data Sheet (MSDS) which identifies the risks and controls which apply to the consignment.

All vehicles are required to display placards which define the class of hazardous substance being carried. Dangerous goods documents must be placed into a pocket located prominently inside the driver's door of the vehicle for ready access by the driver or emergency services in the event of an accident involving the vehicle.

7. Public Engagement

7.1. Flyer to Rolleston residents (refer to Appendix 3)

A flyer was circulated to Rolleston residents in November 2014 to provide information about the relocation of PCRs business to Izone, and invite those with concerns to contact PCR directly.

PCR received no enquiries as a result of this flyer.

7.2. Letters to Izone businesses (refer to Appendix 4)

A letter was circulated to all businesses in the Izone Business Park in October 2014 to provide information about the relocation of PCRs business to Izone, and invite those with concerns to contact PCR directly.

PCR received no enquiries as a result of this letter.

7.3. Westland Milk Products

Discussions have been held with representatives of Westland Milk Products (WMP) who operate a large processing plant for milk products in Izone. While not a directly adjoining landowner WMP wished to establish what emissions or discharges PCR might intend or cause to be made.

Information was provided about what materials will be handled and the consents that are being sought. With the knowledge that PCR will operate a closed manufacturing process and contain all dust resulting from its manufacturing activities WMP expressed no concerns with the proposal.

Also; their own manufacturing processes are very tightly controlled with process equipment operating in a positive air environment during critical phases at risk of contamination from airborne substances and pathogens.

7.4. Presentation to Rolleston Residents Association

PCR offered to make a presentation to the November meeting of the Rolleston Residents Association to provide the community with information about the proposal to establish the manufacturing plant at Izone.

Also in attendance at the meeting was Jonathon Scott, a Rolleston resident opposed to the use of 1080. Mr Scott made a presentation to the meeting informing other attendees of the petition he has organised which requests that Selwyn District Council refuse to grant resource consent for the development.

Dr Ian Shaw, a toxicologist from Canterbury University, was also invited to attend in order to answer technical questions, but was unable to attend due to other commitments.

Both presentations followed the normal monthly meeting of the association, and were attended by around 50 people, who took the opportunity to ask a number of questions of the PCR staff in attendance. The questions and responses are detailed in Appendix 5.

8. Economic Impact of Proposal

8.1. Existing site

The decision to seek new premises for PCR followed a thorough evaluation of the existing leased manufacturing site in Christchurch against business needs and projected growth.

The site has a number of physical constraints including height and floor area which limit efficiency, and prevent additional manufacturing capacity being added. Office accommodation isn't noise proofed which necessitates premises to be maintained elsewhere for core administrative functions.

A key factor affecting business growth is the limited range of products that can be manufactured at the existing site, and space considerations which restrict manufacturing capacity and necessitate additional process steps.

The site is located in a mixed commercial and urban precinct where planning requirements limit the range of toxic based products that can be manufactured. The manufacture of products containing 1080 would require a change in the District Plan before consent could be sought; however such a change is unlikely to be successful.

The building was moderately damaged during the Canterbury earthquakes of 2010 and 2011, and consequently is difficult to secure against vermin and avian pests. These pests frequently spoil raw materials and foul the packaging of finished product awaiting dispatch contributing additional costs to the manufacturing process.

8.2. Industry context

During the past decade there has been significant vertebrate pest control undertaken by a range of agencies and NGOs, much of it relying upon the use of aerially applied toxins such as 1080.

The objectives of such control include reducing the incidence of TB in farmed animals, and environmental enhancement and protection.

New Zealand currently spends over $100 million each year on controlling possums, rats, and other small mammal pests to eradicate bovine TB and to reduce the impacts of these species on our native plants and animals.

Given the importance of animal health to safeguarding export markets, and the number of iconic native species that are in decline, it is reasonable to assume that large programmes of vertebrate pest control will be ongoing until effective alternatives such as biocide controls are introduced.

The Parliamentary Commissioner for the Environment (PCE) has called for greater use of aerially applied 1080 as a safe and effective control methodology for combating a range of introduced pests.

8.3. Fit with Resource Management Act

While exact economic benefits of the PCR plant at Rolleston are difficult to quantify the facility would align with Section 5 of the RMA which states that "The purpose of the act is to promote the sustainable use of resources" and that "sustainable management means managing the use, development and protection of natural resources in a way, or at a rate, which enables people and communities to provide for their social, economic, and cultural wellbeing....."

8.4. Benefit to Regional Pest Management Strategy

With effectiveness of the Rabbit Calicivirus Disease (RCD) virus in rabbits waning, the availability of high quality bait products at competitive rates is increasingly desirable for Canterbury farmers who are required to suppress rabbit numbers on their properties pursuant to the Regional Pest Management Strategy (RPMS).

At the present time larger scale operations for rabbit control are mostly undertaken using carrot bait, which require carrot to be grown on contract posing several risks including quality and availability.

By comparison cereal bait offers the advantage of being readily available year round so that seasonal spikes in rabbit density can be responded to, as well as being uniform in toxic loading, palatability, physical size and quality. The availability and long storage life of pellet baits means that sudden changes and weather can be accommodated without compromising the effectiveness of an operation.

These attributes also enable cereal pellets to be used at much lower sowing rates than conventional carrot operations, reducing costs to landowners as well as risk of failure. With a reduction in application rates the amount of aircraft time necessary is reduced, allowing for more cost effective control for landowners.

With no central body undertaking control over large areas many farmers are responding to directives rather than proactively carrying out control. This is partly due to the high cost of control as a function of bait purchase and application cost. Lower application rates and application costs will allow landowners to undertake control more proactively.

8.5. Security of active ingredient supply

The ongoing availability of 1080 active ingredient is uncertain with the sole supplier being a small family owned business located in the United States. Continued supply is thus subject to prevailing regulatory conditions in that country and a willingness to produce that product line.

While a manufacturing facility for technical grade 1080 could be established in New Zealand (or other countries), a conservative estimate for the time required to do so ranges from two to five years depending upon regulatory regime.

For this reason PCR also seeks consent to manufacture bait products containing the anticoagulant toxins Brodifacoum, Cholecalciferol and Pindone which helps provide some contingency in the event that the global supply of 1080 ceases abruptly.

8.6. Competition

With bait making up over half the cost of most pest control operations the availability of effective and competitively priced products for vertebrate pest control is one of the largest obstacles facing control agencies.

For many years the sole supplier of pelletised bait products was Animal Control Products (ACP), a State Owned Enterprise (SOE), which had inherited the production facilities of the former agricultural pest destruction boards in Wanganui and Waimate.

The manufacturing facilities generally supplied products for use within their respective islands, but a decision was taken some years ago to close the Waimate facility and consolidate all operations in Wanganui. The impact of that decision has been higher transport costs for South Island based operations and periodic issues with bait quality such as spoilage from storage for extended periods (often necessary for security of supply), and the quality of raw materials such as grains used.

Among the major benefits of a South Island manufacturer of bait products are cost and availability. Because Canterbury grains are of very quality and readily available the business has been able to offer non-toxic products at competitive prices ending a decades old stranglehold that ACP has had on the industry.

8.7. Cost of production

The establishment of a second pelleting plant has been a long term objective for PCR but physical constraints at the existing site prevent it, meaning that a single plant is used for the manufacture of both toxic and non-toxic bait products.

The use of a single plant requires time consuming reconfiguration and cleaning before manufacture of dissimilar products. The time taken to clean the plant between production of toxic and non-toxic bait is two person days on each occasion.

Thus a key driver for relocation to Izone is that a second manufacturing plant can be installed allowing one plant to be dedicated to manufacture of non-toxic product lines, meaning that time and resources consumed in cleaning and reconfiguring equipment will be greatly diminished.

Limited floor area in the existing building also necessitates frequent double handling of finished product which diverts labour from other tasks, and requires additional vehicle movements to clear finished orders.

Plant is unable to be operated at full efficiency due to height constraints in the present building which mean that conveyors must be substituted for some elevators which increases energy consumption, reduces throughput, damages product and generates more dust.

8.8. Goods and services purchased by PCR

The business currently employs two Full Time Equivalent (FTE) staff, and engages temporary labour to complete large orders as required.

The business purchases approximately 95% of the raw materials necessary for bait manufacture from local suppliers, and for every ton of pelletised bait spends approximately $1,100 within the region on materials and labour.

Extrapolated for recent Department of Conservation operations alone this would have contributed $750,000 to the regional economy and in the process required another 1.5 FTE employees for at least six months in order to meet demand.

The sourcing of process equipment is coordinated by specialist suppliers in Christchurch. Repairs and maintenance are all undertaken by local tradespeople. Chemical and physical analysis for quality assurance purposes is provided by a Canterbury based analytical laboratory.

Inwards goods are generally moved to the factory by local operators and small consignments of outward goods (traps and related products) are dispatched by courier most days. Depending upon the ultimate destination, many consignments of outwards goods are transported by regionally based transport operators.

8.9. Logistics

Transportation costs for the existing site are relatively high due to the distance vehicles must travel through suburban Christchurch. At peak times goods service vehicles can take an hour or longer to reach the open road.

Damage caused by the 2010 and 2011 Canterbury earthquakes has caused ongoing difficulties for heavy vehicles wishing to access the industrial estate where the existing factory is situated. Roads are frequently closed for reinstatement of underground services.

Vehicle loading and unloading at the existing plant is difficult due to the constrained common area shared with other resident businesses, and the lack of a vehicle canopy which restricts loading of some products to dry weather.

By comparison the Izone manufacturing site offers ready access for heavy vehicle combinations and features a vehicle canopy to facilitate loading in all weathers to speed turnaround times.

Proximity to key regional transport hubs including State Highways 1 and 73, the South Island Main Trunk and West Coast railway lines, Christchurch International Airport and Port of Lyttleton mean that product can be transported to and from Rolleston readily.

The lack of noise proofing between the factory and office space at the existing manufacturing site necessitates the lease of office space elsewhere for core administrative work. At peak times travel between the two sites can take 20 minutes or more.

8.10. Product development

PCR began life as a research focused business, and the current directors have a long association with agencies undertaking professional pest control and scientific research, meaning market requirements and customer feedback can be incorporated into development of new product lines.

The development of new and improved products relies heavily on thorough testing in controlled and field conditions, and with the head office of Landcare Research located in nearby Lincoln PCR is ideally situated to take products from concept to market.

For example, PCR has developed an effective deer repellent that will be available as a standard addition to its bait. The only existing deer repellent available more than doubles the price of bait, and requires orders to be placed many months in advance, which then requires bait to be stored for longer periods increasing the risk of spoilage and operational failure.

PCR repellent will be incorporated into bait products at the time of manufacture and available at a very competitive price point. The wider use of deer repellent will go a long way toward addressing perceptions that hunters have about the impact of aerial 1080 operations on recreational hunting.

Anticoagulant based products intended to be produced by PCR fill a niche for products of lesser or differing toxicity than 1080. For example Pindone based products can be used in closer proximity to residential properties, and where used in a pastoral setting (such as for rabbit control) the land can be restocked much more quickly than where 1080 is used.

Also, animals poisoned by most anticoagulants respond readily to treatment with Vitamin K, meaning there is an effective antidote available in the event of misadventure.

9. Appendices

Appendix 1: Manufacturing Approval

Ministry for Primary Industries
Manatū Ahu Matua

Certificate No: **NZ/GMP/060/A/1/2013**

CERTIFICATE OF GMP COMPLIANCE OF A MANUFACTURER

The Ministry for Primary Industries, ACVM Programmes Group, being the competent authority of New Zealand for agricultural compounds and veterinary medicines, confirms the following:

The company: **Pest Control Research LP**

whose legally registered address is: **Unit 23**
150 Cavendish Road
Northcote
Christchurch

has been authorised, in accordance with the Agricultural Compounds and Veterinary Medicines Act 1997, and Regulations 2011,

covering the following site(s) of manufacture:

[redacted] **Christchurch**

to carry out the following operations:
- total manufacture
- ~~partial manufacture only,~~

of the following medicinal product or group of registered products for use in animals:

~~Sterile~~ / Non-sterile

in the following product type(s) / dosage form(s):

Vertebrate Toxic Agents in solid dose form in Category 8

From the knowledge gained during inspection of this manufacturer, the latest of which was conducted **24 June 2011**, it is considered that the company complies with the ACVM Standard for Good Manufacturing Practice.

This certificate is valid for 3 years from the date of last inspection unless suspended or surrendered.

24 January 2014

MINISTRY FOR PRIMARY INDUSTRIES
NEW ZEALAND

Name and Signature of the authorised person of the Competent Authority of New Zealand

.....

Glen Bradbury
Manager, ACVM Appraisals and Programmes
Systems, Support and ACVM
Ministry for Primary Industries

Appendix 2: Incident Response Procedures

PEST CONTROL RESEARCH

EMERGENCEY RESPONSE PROCEDURES FOR INCIDENTS INVOLVING VERTERBRATE TOXIC AGENTS

Amendment History		
Version No.	**Date**	**Amendment(s)**
	Dec 14	Draft procedures for Rolleston site

CONTENTS

Section 1 – Document Overview

INTRODUCTION

Pest Control Research manufactures a range of ready to use bait products containing vertebrate toxic agents as the active ingredient.

These substances are characterised as having either toxic and/or ecotoxic properties and as such are classified as hazardous pursuant to the Hazardous Substances and New Organisms (HSNO) Act.

The HSNO Act requires certain levels of emergency preparedness for places where hazardous substances are stored handled or manufactured.

This document is a template which will be adapted as required for the particular circumstances at each PCR manufacturing site.

SCOPE OF PROCEDURES

The objective of procedures contained in this document is to manage risks to live, property and the environment in the event of an emergency involving the hazardous substances present at PCR manufacturing sites.

The scope of procedures contained in this manual includes incidents involving active ingredient or manufactured product that take place within the factory and yard environment but excludes incidents during road transport to and from the factory.

Procedures for the following incident types are contained in this document:

Fire	☑
Flooding	☑
Poisoning	☑
Earthquake	☑
Criminal activity	☑
Hazardous substance spill	☑

All employees must familiarise themselves with the procedures in this document and be confident in their implementation should an incident occur.

INCIDENT LEVELS

These procedures provide information for responding to two levels of incident:

1. **Minor Incident**

   - A minor incident is able to be managed by Pest Control Research staff within the context of normal operations and would involve only limited clean-up to achieve reinstatement of controls within a short period of time.

   - A minor incident does require the assistance of emergency services or medical aid.

   - Examples of a minor incident are small spills of active ingredient during operations such as decanting and measurement. Typically the spilt substance is confined to a localised area which is able to be demarcated and the spilt substance recovered without loss.

2. **Major Incident**

   - A major incident is usually preceded by an event such as a fire or a natural disaster causing the unintended release of large quantities of active ingredient or manufactured product which pose an immediate threat to life, property or environmental values within or beyond the factory environment.

   - The duration of responses to major incidents may extend for many days and will normally involve assistance from outside organisations (i.e. the Fire Service) and will have effects extending beyond the Pest Control Research manufacturing site.

RESPONSE PRIORITIES

The hierarchy of incident response shall be as follows:

1. **Manage risk to human life**

2. **Protect property at risk of damage**

3. **Limit environmental impact**

Within each category the response priorities will be affected by the circumstances and immediacy of risks. For example the containment of spilt material to protect human health may be more important than the deployment of spill booms to limit environmental impacts.

Response decisions should be based on the properties of the substance involved and knowledge of the local environment.

ROLES AND RESPONSIBILITIES

The following roles exist in the PCR incident response structure:

1. **Site Manager**

   - The Site Manager has overall responsibility for operation of the manufacturing facility and is responsible for the development of emergency response procedures and coordination of any training necessary for staff to comply with the procedures described in this document.

2. **Approved Handlers**

   - Employees who hold an Approved Handler Certificate which demonstrates they have a thorough working knowledge of the operating equipment and procedures necessary to manage the hazardous substance(s) for which they are approved to handle.

   - These employees work under the day to day control of the Site Manager, and are required to implement emergency response procedures under the direction of that person, or independently until that person or emergency services personnel arrive to take charge of the scene.

3. **Contractors**

   - In the event of a major incident contractors may be engaged by Pest Control Research to provide specialist services or additional capacity and will be tasked with specific duties by the Site Manager (e.g. forklift operation, drain cleaning and waste disposal).

4. **Emergency Services**

   - In the event of a major incident emergency services shall be summoned to the site and may assume control of the incident response including matters such as environmental pollution and incident investigation.

Responsibilities for all staff may include summoning emergency services, scene management (e.g. directing traffic, site security and public liaison), administering first aid and incident response operations such as spill containment.

Incident responses will normally be directed by the Site Manager but in their absence shall be implemented under the direct supervision of a competent person.

SUBSTANCES AT THE SITE

Hazardous substances stored at PCR manufacturing sites include technical grade active ingredient and manufactured product awaiting dispatch to customers.

1. **Active Ingredient**

   - All active ingredients are stored within a locked Dangerous Goods store inside the building envelope.

   - Active ingredients are received in powdered form contained within sealed packaging, and only opened on demand to measure or decant contents for manufacture or assay purposes.

   - Active ingredients are stored in a sealed dangerous goods store within the building envelope. The dangerous goods store has integral secondary containment which will prevent water ingress to a height of 250mm above floor level.

2. **Manufactured Product**

   - All manufactured products are cylindrical pellets comprised of grain and sugar formulations with toxins incorporated at various concentrations.

   - Manufactured products are stored in impermeable packaging, and stacked on 100mm high wooden pallets to prevent spoilage from atmospheric moisture and evaporation of attractants incorporated in the product.

The following substances may be present at the PCR manufacturing site:

Common name of active ingredient	CAS number	HSNO classification(s)
Pindone	83-26-1	6.1B, 6.9A, 9.1A, 9.3A
Sodium Monofluoroacetate (1080)	62-74-8	6.1A, 6.1C, 6.3B, 6.4A, 6.8A, 6.9A, 9.1A, 9.2B, 9.3A, 9.4A
Cholecalciferol	67-97-0	6.1B, 6.4A, 6.8B, 6.9A, 9.1D, 9.3A
Brodifacoum	56073-10-0	6.1A, 6.4A, 6.9A, 9.1A, 9.3A

An inventory of current substance holdings is maintained in hazardous substance tracking register for each site.

MATERIAL SAFETY DATA SHEETS

Material Safety Data Sheets (MSDS) contain detailed information for responding to a range of incidents involving hazardous substances.

Material Safety Data Sheets for all substances present at the PCR manufacturing site are held in the Site Master File and in a folder with first aid, spill response and firefighting equipment.

MSDS information must be made available to any person or agency involved in a response to a vertebrate toxic incident at a PCR site.

Do not assume that emergency responders are familiar with risk and safety requirements for handling substances present at the site.

PERSONAL PROTECTIVE EQUIPMENT

Personal Protective Equipment (PPE) requirements for incident response shall be determined from the Material Safety Data Sheet (MSDS) and will generally be consistent with normal handling requirements for the particular substance.

Staff receive instruction in the wearing and maintaining of Personal Protective Equipment upon commencement of employment. Any defects observed during day to day operations must be reported to the Site Manager without delay.

All personnel entering the factory environment during an emergency incident must be instructed to wear protective equipment.

Spare PPE is available within the factory environment for use by visitors or regulatory authorities during periodic inspections of the facility.

Fire Service personnel will usually have basic protective equipment for hazardous substances spills on each appliance, but other emergency service personnel and responders may not have access to such equipment and should therefore be provided with equipment and instructed in its use.

Ensure that PPE is appropriate to the situation and task being undertaken. For example, Tyvek overalls are not flame resistant and exposure to heat or flame may cause material to decompose, melt or catch alight causing injuries to the wearer.

Also consider whether protective equipment such as respirators have been contaminated by hazardous substances and have appropriate ratings for the degree of exposure posed by the incident.

Section 2 – General Procedures

1. **Raise the Alarm**

   If you are alone, raise the alarm before you take any action.

   Protect your own safety before attempting to assist others or taking steps to limit effects on property or the environment.

2. **Secure the Scene**

   The first duty is to ensure the safety of all people in the area.

   Establish a hazard zone to keep people and traffic out of danger and patrol it if possible. Determine the best access for emergency services.

3. **Approach the Scene**

   Stop and think before acting. Approach from upwind to avoid exposure to airborne hazardous substances.

   Avoid surface water as it may be contaminated or electrified.

4. **Identify Substances**

   Determine the types of hazards posed by the substance from the placards and class labels on the storages, vehicles, freight containers and packages so that necessary precautions can be taken.

   Always assume that the most hazardous materials are involved in the incident until it can be proved otherwise.

5. **Assess the Situation**

   Consider the following what things are at risk (i.e. people, property or the environment) and how significant the risk is.

   Determine what resources are required and when they will be readily available. Identify what can be done right away.

6. **Respond Appropriately**

   Respond in an appropriate manner. Establish a command post and lines of communication. Rescue casualties if possible and evacuate if necessary.

   Continually reassess the situation and modify the response accordingly. Always seek and utilise expert advice, specialised equipment and technical know-how.

Section 3 – Specific Procedures

POISONING

In the event of poisoning:

1. Take immediate steps to minimise further exposure and seek urgent medical assistance by dialling 111 and asking for ambulance.

2. Follow Material Safety Data Sheet instructions to ensure you are wearing appropriate Personal Protective Equipment then attend to injuries according to the normal priorities e.g. life threatening injuries before patients who can safely await treatment.

3. Monitor patient vital signs and seek advice from the National Poison Centre.

FLOOD

In the event of flooding within the factory environment:

1. Deploy spill boom to building entrances to prevent any water contaminated by toxin from entering nearby waterways or drains.

2. Where possible ensure that manufactured products are elevated above the floor which by placing one or more wooden pallets beneath them.

3. If contaminated water does effect a watercourse consideration should be given to whether it is used for domestic or commercial purposes. Regional Council Pollution Response should be informed in the event of any discharge to waterways.

NB. Packaging which retains its integrity can be expected to repel water and even if immersed should not leach any toxin.

EARTHQUAKE

In the event of a moderate or severe seismic activity:

1. Evacuate the building immediately and ensure all personnel and visitors accounted for.

2. Check for damage to the building structure and do not return until the building has been inspected by an appropriate person.

3. If the building cannot be secured due to damage ensure that someone remains on scene until repairs can be made, or security arranged.

4. Consideration should be given to floor damage which may allow liquefaction and water ingress causing flooding to occur.

FIRE

In the event of a fire at the manufacturing site:

1. Evacuate all personnel to the designated assembly point outside the building then summon emergency services ensuring that they are provided with at least the following information:

   - Location of the fire including suburb
   - Nature of hazardous substances present

2. While toxins are not generally flammable by themselves, they may decompose when heated and emit dangerous fumes.

3. The factory manufactures products containing grains and sugars which are moderately combustible and electrical systems such as the motors and switch gear of process machinery may cause an ignition of flammable dust.

4. If attempting to contain or extinguish the fire ensure that Material Safety Data Sheets are consulted to identify any special equipment or precautions necessary for risks posed by toxic substances. Firefighting precautions include:

   - Do not endanger yourself and ensure you have an escape route!
   - Do not use water on petroleum or electrical fires!
   - Do not leave the site unattended if there is a risk of further outbreak!

5. Deploy spill boom to building entrances to prevent any sprinkler water contaminated by toxin from entering nearby waterways or drains.

CRIMINAL ACTIVITY

In the event of criminal activity such as theft, vandalism or sabotage:

1. Obvious signs of criminal activity may include damaged locks, alarm activations and vandalism. To aid investigation by Police do not disturb the scene unless otherwise necessary to secure toxic substances.

2. Complete an inventory of all substances in storage to determine whether any toxin has been stolen.

3. Determine whether the premises are able to be secured, and if not arrange security to protect the scene until normal controls can be re-established.

CHEMICAL SPILL

In the event of a chemical spill at the manufacturing site:

1. **Assess Scene**

   - Identify the substance involved and determine whether there are hazards to your own safety or that of others.

   - Determine whether staff or others have been contaminated by exposure to hazardous substances, particularly spilt active ingredient.

   - In the event of a spill caused by a natural disaster such as an earthquake also consider the risks presented by the natural and built environment e.g. flooding, building collapse and fire.

2. **Contain Spill**

   - Take immediate steps to prevent the pesticide from contaminating people, property or the environment.

   - Depending upon Material Safety Data Sheet requirements this may include containing the spill using sorbent booms, or dampening the spilt substance to prevent dust.

   - Active ingredients are not pooling substances, so provided the building envelope is intact are unlikely to be borne beyond the immediate spill location; however punctured containers or damaged packaging should be repositioned so that further spillage cannot occur.

   - Minor spillage of manufactured product shall be demarcated with cones and physical barriers to prevent toxin being spread before being recovered.

   - Spill kit containing equipment to deal with a small incident involving active ingredient is located in the manufacturing area.

3. **Recover Substance**

   - Follow information on label and Material Safety Data Sheet to collect the spilt substance.

   - Use original packaging where possible or repackage into containers of equal or better strength with appropriate labels.

   - Where necessary contact manufacturer for further information or seek advice from Fire Service.

Section 3 – Notification Requirements

MINOR INCIDENTS

Minor Incidents must be reported immediately to the Site Manager who will record the incident and actions taken in the log file for the manufacturing site.

MAJOR INCIDENTS

1. **Immediate**

   The following people and organisations must be notified immediately:

Person or organisation	24 hour telephone
Site Manager	
Medical Officer of Health	
Neighbouring businesses (continue on as many lines as required)	
New Zealand Police	

2. **Within 24 Hours**

   The following organisations must be notified within 24 hours:

Person or organisation	24 hour telephone
Environmental Protection Agency	
Ministry for Primary Industries	
Worksafe New Zealand	
Local or unitary authority	
Regional council	

Section 4 – Record Keeping

1. In the event of an incident times and actions shall be recorded in an incident log along with any other relevant details.

2. Incidents logs may later be used to aid investigation of the incident to improve handling or safety procedures in order to avoid a repetition of the incident in future.

3. If an incident results in the disposal of active ingredient or manufactured product this information must be recorded in the hazardous substance tracking register for the site.

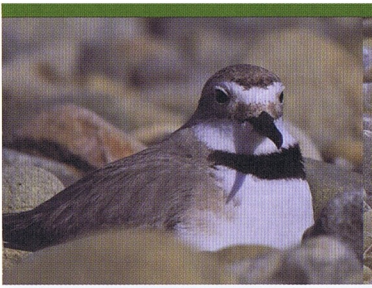
Section 5 – Record of Staff Training

Individuals with Specific Skills and Responsibilities		
Name	**Role**	**Date trained**

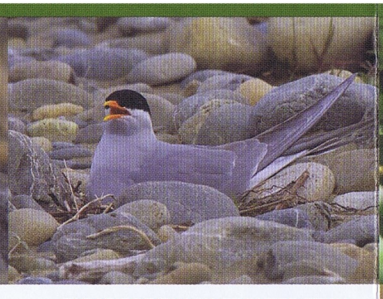
Section 6 – Record of Plan Testing

Date of testing	Incident scenario	Issues identified	Modifications made

Appendix 3: Flyer to Rolleston residents



NGUTUPARE/ WRYBILL



TARAPIROE/BLACK-FRONTED TERN

The use of 1080 itself is a bigger issue far outside of the scope of this leaflet.

PCR is heavily involved in research to identify ways we can make 1080 more targeted to specific pest animals, how to make it more repellent to non target animals, and ways to produce a more humane kill.

TOP: KORIMAKO/BELLBIRD
BOTTOM: WEKA

TOP: TIEKE/SADDLEBACK
BOTTOM: KAREAREA/NEW ZEALAND FALCON

For any other questions on the use of 1080 as a pest control toxin, we recommend the following website http://www.1080facts.co.nz/

PEST CONTROL RESEARCH

Bird photos by Steve Attwood – Just some of the species vulnerable to introduced predators.

LETTER TO ROLLESTON RESIDENTS

RE: Proposed preparation of 1080-baited pellets at Izone

PEST CONTROL RESEARCH

TOUTOUWAI/SOUTH ISLAND ROBIN

KEA

Dear residents,

An application is about to be made to the Selwyn District Council for planning permission to prepare baits containing the pesticide 1080 by Pest Control Research LP (PCR), a business setting up at Izone Southern Business Hub near Rolleston.

We understand you might be worried about possible risks to your health and the environment. This leaflet explains the safety processes involved.

If approved, the manufacturing process will take place under strictly controlled conditions. **There will be no toxic discharge to air, ground or water, and no risk of 1080 entering the food chain**. This means there will be no danger to residents or workers at, or near, Izone.

Our Business

PCR is currently located in Christchurch and has been involved in research, consultancy and the design and manufacture of pest control products for 14 years. We have had an exemplary safety record for the handling and processing of the other pest control toxins we use. We will apply that proven commitment to safety to our proposal to manufacture 1080-baited pellets at Izone.

Approval Process

Our proposal will first go through a consent process with Selwyn District Council, which will address all of the safety and regulatory requirements. The Environmental Protection Authority and the Ministry for Primary Industries, along with other authorities, will be involved in permitting and monitoring our proposed activity.

These organisations have a vested interest in ensuring that public safety is not put at risk and that New Zealand's agricultural and environmental standards are protected.

Regards,

Malcolm Thomas
Pest Control Research LP: info@pcr.co.nz

Frequently Asked Questions

Q Will PCR be manufacturing 1080?

A No, all 1080 is made in the United States. We propose to manufacture cereal-based pest control pellets containing quite small amounts of the chemical 1080 as the active ingredient.

Q How do you know 1080 will not get into the air and blow across our town?

A The baits will be prepared completely within a 'closed manufacturing process' where any dust is kept inside the machinery and recycled back into the system.

Q Is there any risk that 1080 will get into our streams and waterways or onto the land?

A No risk at all. We use a 'closed manufacturing' process that does not involve any toxic discharge.

Q Is there a risk of 1080 getting into the food chain?

A No, because there will be no air, land or water discharge of any 1080 product or processing by-product.

Q Isn't the continuous presence of 1080 going to inevitably present a risk?

A No. We do not propose to manufacture 1080-baited pellets all the time. The pellets are only a small part of our business and their preparation will only take place for a few weeks out of any year.

Q What about the risk of exposure during transport?

A Everything containing 1080 will arrive and leave in sealed metal drums or sealed containers packed onto shrink-wrapped pellets. These are leak and dust proof and designed to retain their integrity in the event of substantial impact.

Containers will be opened inside the factory building in a specially designed, double-sealed dangerous goods area, preventing the possibility of any product escaping outside.

TUTURIWHATU/BANDED DOTTEREL

JUVENILE BLACK STILT

Only one truck a week will be coming/going from the Izone site during the short manufacturing and distribution period.

Q What about earthquakes and fire?

A Our building will have the highest standards of safety including:

- a double-sealed dangerous goods area
- an extensive fire suppression system with a monitored alarm
- full compliance with modern earthquake standards

Q What does the research say about the use of 1080?

A 1080 is the most thoroughly researched pest control toxin in New Zealand. No other country in the world has the experience that we have in its transport, storage and use for pest control. The independent scientific research backing its use is extensive and carries international credibility for its thoroughness and validity.

The Environmental Protection Authority (EPA) publishes numerous reports on the use of 1080. In addition Parliamentary Commissioner for the Environment, Dr Jan Wright, issued an Update Report in June 2013, following publication in June 2011 of her report *Evaluating the use of 1080: Predators, poisons and silent forests.*

Both the EPA and the Parliamentary Commissioner for the Environment support the continued use of 1080.

Q Isn't the use of 1080 very controversial? A lot of people are opposed to it and claim it kills non-target animals such as birds and deer and is an inhumane way for animals to die.

A As 1080 use is lawful in New Zealand under controlled conditions, PCR believes the debate for Rolleston workers and residents should be about the safety of our proposal to produce baited pellets at Izone.

Appendix 4: Letter to Izone businesses

Having trouble reading this newsletter? **Click here** to see it in your browser.

Dear Izone businesses

You will have learned through media coverage, as indeed Izone management did, that Pest Control Research LP (PCR), a business setting up at Izone, includes in its future plans a proposal to prepare, under strictly controlled conditions, pest control pellet baits containing 1080.

We understand that such manufacturing is a sensitive issue. It is natural for people to worry if their health, or that of their families, might be at risk.

We have asked PCR to provide the information following that we hope will put the issue into perspective and allay any concerns you might have.

We recommend you pass this information on to all of your staff noting that:

- **Right now, no products containing 1080 are being manufactured at Izone.**
- **There is no proposal to manufacture the pesticide 1080 itself at Izone.**
- **The proposal is to make cereal-based pellets that contain 1080 for possum control.**
- **Any proposal to manufacture 1080 pellets will go through a consent process with Selwyn District Council, with all of the safety and regulatory requirements and restrictions that go with this.**

Statement from Pest Control Research

Pest Control Research acknowledges public concern about the proposed manufacture, storage and transport of products containing 1080 pesticide. We completely understand that people have concerns for their own safety and for their families. After all, we have families and staff too.

We assure you that we are a responsible business and that our processes are not a threat to people or the environment.

It is important to note that we have not yet applied for consent to manufacture 1080-baited pellets at Izone and that we do not expect to do so until 2015.

How we will ensure your safety

Processing

The cereal baits containing 1080 will be made in what is called a closed manufacturing process. Any dust is kept inside the machinery and recycled back into the system. No waste is produced. This means there will be:

- **No discharge to air**
- **No discharge to ground or water; and**
- **No toxic waste to be disposed of.**

Storage

There is a strict process for handling any ingredients and final products containing the pesticide 1080.

- **All toxic ingredients will arrive in sealed containers and be opened within the factory building in a specially designed double sealed dangerous goods area. This prevents the possibility of any spills escaping outside of the storage area.**
- **All 1080-baited pellets will be put into strong, sealed bags and shrink-wrapped onto pallets for storage and transport.**

Transport

Pest Control Research will generate less traffic than other businesses of similar size at Izone.

- **One vehicle per week is expected to leave the factory area**
- **All dangerous goods coming into or leaving the factory will be sealed in specially designed containers that comply with the rules for transportation of dangerous goods**
- **Dust and leakage from such containers is practically impossible.**

Building safety

When it is completed our building will have the highest standards of safety.

- **A double-sealed dangerous goods area**
- **An extensive fire suppression system with a monitored alarm**
- **Full compliance with modern earthquake standards.**

Pest Control Research is committed to keeping our Izone neighbours and the community fully informed. We will work closely with authorities to ensure the highest of safety standards and full compliance with all regulations. These authorities will include the Selwyn District Council, The Environmental protection Authority and the Ministry of Primary Industries.

We have no intention of endangering you, your families or the environment and can assure you that our processes will prevent this.

You are welcome to talk to us directly about this proposal. Email us in the first instance at info@pcr.co.nz and we will get back to you.

Kind regards,
Stephen Gubb
Hughes Developments Limited
(Development Managers)

www.izone.org.nz

[email address suppressed] you have received this email because you are on our mailing list or we believe you may be interested in the information we are providing. To prevent further emails from us **click here** .

Appendix 5: Questions at residents association meeting

Question	Response
Why not declare the purpose of the plant in your consent application?	There was no requirement to disclose this in a building consent application, beyond identifying factors that may affect design of building features such as the fire suppression system, however we always understood that the proposal would eventually have to go to Selwyn District Council for a resource consent which, even if it turns out to be non-notified, is still a process which takes into account a range of factors. We have absolute confidence in the rigorous safety procedures we propose to use and believe the risk to the public is negligible and not of any greater scale of risk than a great many of the other industrial operations near Rolleston that also handle dangerous, volatile and toxic substances.
What other materials controlled under Hazardous Substances and New Organisms legislation are likely to be stored and manufactured at the proposed plant e.g. Cyanide?	The only vertebrate poison currently produced by PCR is pindone (an anti-coagulant), but other poisons will be manufactured in future depending on customer demand. It is worth noting that we have operated a factory in Christchurch since 2005 without a single incident involving the products we manufacture. There is no proposal to manufacture any cyanide based products at this time.
What are the risks to employees and their families if they take 1080 home in their hair and clothing? An ERMA report suggests "Significant risk" to employees.	The whole process takes place within sealed machinery therefore the possibility of dust is remote. Further, staff will be using the fully enclosing protective clothing required when 1080 bait pellets are being manufactured. Our processes use specially imported machinery which is the very latest technology available both in terms of safety of processing and as regards the risk of leakage dust etc.
What is the risk of contaminated ground?	In practical terms there is no risk of soil contamination. The entire manufacturing process is based on a sealed and enclosed system, from the arrival of the active ingredient in special containers, through manufacturing in sealed machines, to transport of pellets in other equally well sealed packaging. There is no discharge to air, water or ground during the manufacturing process. One could imagine that in the event of a catastrophic incident such as a fire or earthquake there might be some risk, but the reality is that would be very low given the controls in place.
What are the risks to anyone in the area keeping bee hives?	For the same reasons as above, as close to zero as it is practical to estimate. Bees are in far more danger from the daily use of commercial and domestic garden pesticides.

What is the risk of contaminating the water race that runs along Hoskyns road, right past Rolleston school, down Tennyson St and though into the dog park?	Water is not used in any significant quantity for manufacture, and what there is essentially evaporated. There is no waste water discharge from manufacture or maintenance activities. The entire process is based on a sealed and enclosed system, from the arrival of the active ingredient in special containers, through manufacturing in sealed machines, to transport of pellets in other equally well sealed packaging. There is no discharge to air, water or ground. One could imagine that in the event of a catastrophic incident such as a fire or earthquake there might be some risk, but the reality is that even that would be very low given the very strong sealed containers and machinery used. It is also worth noting that 1080 breaks down rapidly in water. In practical terms in a free flowing drain running a kilometre from our factory into Rolleston, the risk of contamination is extremely low and in all probability someone would have to consume more water than a person is physically capable of consuming to receive a fatal dose.
What are the risks to our local schools and homes because the factory will be in the Nor-West wind path from the town?	As noted previously there is almost no dust produced and what there might be is within an enclosed factory which is serviced by an advanced micro filtering air cleaning system. Again, one might argue that in a catastrophic event there might be some risk but we can only re-emphasise that all of the containers, processing and storage areas are sealed and extremely robust and the risk of the escape of dust even in such an emergency is practically zero. It is worth noting that our facility will be the most modern in New Zealand but even the existing facilities have operated safely in their towns for more than 40 years.

Appendix 6: Certificate of Title

COMPUTER FREEHOLD REGISTER
UNDER LAND TRANSFER ACT 1952

Search Copy

R.W. Muir
Registrar-General
of Land

Identifier	**615761**
Land Registration District	**Canterbury**
Date Issued	17 May 2013

Prior References
601867

Estate	Fee Simple
Area	1598 square metres more or less
Legal Description	Lot 636 Deposited Plan 464084
Proprietors	
West Coast Regional Council	

Interests
Land Covenant in Easement Instrument 9327598.1 - 1.3.2013 at 8:09 am