



Licence Number	L4474/1976/14
Licensee	Fremantle Port Authority (ABN 78 187 229 472)
Registered business address	1 Cliff Street FREMANTLE, WA, 6160
Duration	07/04/2012 to 06/04/2032
Prescribed Premises	Category 58 Bulk material loading or unloading: premises on which clinker, coal, ore, ore concentrate or any other bulk granular material (other than salt) is loaded onto or unloaded from vessels by an open materials loading system.
Premises	Kwinana Bulk Jetty Port Road, KWINANA BEACH, WA, 6167 CITY OF KWINANA Lot 4552 on Plan 220690 And Portion of Lot 497 on Plan 35196
Amendment	29 July 2016

This **Licence** is granted to the **Licensee**, subject to the following conditions, on 29-07-2016, by:

Date signed: 29 July 2016

Michael Christensen

Executive Advisor

an officer delegated under section 20 of the Environmental Protection Act 1986 (WA)

Conditions

Environmental compliance

1. The **Licensee** must comply with the **EP Act** and all regulations prescribed under the **EP Act** applicable to the **Premises**, including:
 - (a) the duties of an occupier under s 61;
 - (b) the duty to notify the **CEO** of **Discharges** of waste under s 72; and
 - (c) not causing, or doing anything that is likely to cause, an offence under the **EP Act**,

except where the **Licensee** does something in accordance with a **Condition** which expressly states that a defence under s 74A of the **EP Act** may be available.

Notification of Material Change

2. The **Licensee** must notify the **CEO** of any **Material Change** within 14 days of a **Material Change** occurring. The **Licensee's** notification (which the **CEO** will make publicly available) must:
 - (a) be in writing;
 - (b) include details of the changes, including duration, infrastructure details (if any); and
 - (c) include risk analysis of the changes, including proposed controls to mitigate risks.

Nothing in this **Condition** constitutes a defence to offences under the **EP Act**.

3. The **Licensee** must provide to the **CEO** any additional information the **CEO** may reasonably require to assess the **Material Change** and for the **CEO** to determine if an amendment to the **Licence** is required.
4. The **Licensee** must cease carrying out, or modify, a **Material Change** in the manner and at the time required by the **CEO** if:
 - (a) the **CEO** forms the view, acting reasonably, that the **Material Change** has or may have an unacceptable impact on public health, amenity or the environment; and
 - (b) the **CEO** has provided written notice (which the **CEO** will make publicly available) to the **Licensee** specifying the grounds for the **CEO's** views.

Nothing in this **Condition** prevents the **Licensee** subsequently submitting an amendment in relation to the **Material Change**.

Infrastructure and Equipment

5. The **Licensee** must ensure that the infrastructure and equipment specified in column 1 of Table 5 in Schedule 3, are maintained and operated in accordance with the requirements specified in column 2 of Table 5 in Schedule 3.
6. The **Licensee** must ensure that the infrastructure and equipment in Schedule 3 are maintained in good working order.

Cockburn Sound Monitoring and Reporting

7. The **Licensee** must monitor the parameters specified in column 1 from the locations specified in column 2 in Table 1. Monitoring results to be reported for the period specified in column 3 and in accordance with the methods specified in columns 4 and 5 in the Table 1.

Table 1: Cockburn Sound Monitoring Table

Column 1	Column 2	Column 3	Column 4	Column 5
Parameter	Location	Period	Sample	Method
<p>Water Quality:</p> <p>Physico-chemical: Surface temp; salinity, pH, ; Dissolved Oxygen (DO)</p> <p>Carbon, Nutrients and Total Suspended Solids (TSS): Total Nitrogen, Nitrate (NO₃), Ammonium (NH₄), total phosphorus and ortho-Phosphorus, dissolved organic carbon (DOC), Total Suspended Solids (TSS)</p> <p>Biological Response: chlorophyll-a, chlorophyll-b, chlorophyll-c and phaeophytin;</p> <p>Organics: Total Petroleum Hydrocarbon (TPH) and BTEX (incl. benzene, toluene, ethylbenzene and xylenes)</p>	<p>KBJ1, KBJ2 and KBJ3 as per the monitoring locations on Marine Monitoring map in Schedule 4</p>	<p>Annually: Sample on a single occasion annually in January / February / March Report by 30th September</p>	<p>Probe logging of physico-chemical parameters. Grab samples for balance of analytes. Single sample for nutrients from surface of water and seabed. Single sample for biological response and organics from surface of water.</p>	<p>Physico-chemical profiles to be obtained using a multiparameter probe across depth of the entire water column. As required, water quality samples are to be collected from the surface (0.5m below sea level) and the bottom (0.5m above seabed). The samples are to be processed and measured at a NATA accredited laboratory(s).</p>

Column 1	Column 2	Column 3	Column 4	Column 5
Parameter	Location	Period	Sample	Method
Mussels Arsenic, cadmium, chromium, copper, lead, mercury, selenium and zinc	From wharf pylons or sentinel mussels	Annually: Sample on a single occasion annually in January / February / March Report by 30 th September	Single grab harvesting of mussels or using sentinel mussels.	To be collected from the nearest available surface (wharf pylons) or sentinel mussel cage. Immediately after sampling, stored on ice and dispatched to NATA accredited laboratory(s) for processing and analysis.
Sediment Quality for metals Arsenic, cadmium, chromium, copper, lead, mercury, selenium and zinc	KBJ1, KBJ2 and KBJ3 as per the monitoring location map on the Marine Monitoring map in Schedule 4	Annually: Sample on a single occasion annually in January / February / March Report by 30 th September	Annual grab sample	As per section 6.4 of the <i>Manual of Standard Operating Procedures for Environmental Monitoring against the Cockburn Sound Environmental Quality Criteria (2003-2004)</i>

8. The **Licensee** must provide a report to the **CEO** specifying the data from the monitoring undertaken in **Condition 7** at the frequency specified in Schedule 4.

Emissions

9. The **Licensee** must not cause any **Emissions** from the **Premises** except for Specified Emissions and General Emissions described in column 1, subject to the exclusions, limitations or requirements specified in column 2, of the Table 2.

If the **Licensee** proves that it has acted in accordance with this **Condition**, it may be a defence under s 74A of the **EP Act** to proceedings for offences under the **EP Act** (including offences under section 56).

Table 2: Emissions Table

Column 1	Column 2
Emission Type	Exclusions/Limitations/Requirements
Specified Emissions	
Dust Management	Subject to compliance with: <ul style="list-style-type: none"> row 1 of the table in Schedule 3; and Conditions 5 and 6.
Spill Management	Subject to compliance with: <ul style="list-style-type: none"> Rows 2 to 5 of the table in Schedule 3; and Conditions 5 to 8.
Discharge washwater and stormwater from the Premises	Subject to: <ul style="list-style-type: none"> compliance with row 6 of the table in Schedule 3; and Conditions 5 to 8.
Column 1	Column 2
Emission Type	Exclusions/Limitations/Requirements
General Emissions (excluding Specified Emissions)	
<p>Emissions which:</p> <ul style="list-style-type: none"> arise from the activities on the Premises through matters set out in, or incidental to the matters set out in, the General Description in Schedule 2; or arise from a Material Change (except where Condition 4 applies). 	<p>Emissions excluded from General Emissions are:</p> <ul style="list-style-type: none"> Unreasonable emissions; or Emissions that result in, or are likely to result in, Pollution, Material environmental harm or Serious environmental harm; or Discharges of Waste in circumstances likely to cause Pollution; or Emissions that result, or are likely to result in, the Discharge or abandonment of Waste in water to which the public has access; or Emissions or Discharges which do not comply with an Approved policy; or Emissions or Discharges which do not comply with Prescribed standard; or Emissions or Discharges which do

Column 1	Column 2
Emission Type	Exclusions/Limitations/Requirements
	<p>not comply with the conditions in an implementation agreement or decision; or</p> <ul style="list-style-type: none"> • Emissions or Discharges the subject of offences under regulations prescribed under the EP Act, including materials Discharged under the <i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i>.

Information

10. The **Licensee** must maintain accurate records including information, reports and data in relation to:
- the calculation of fees payable in respect of this **Licence**; and
 - any **Material Change**.
11. If an **emission** the type referred under **Condition 9** occurs on the **Premises**, then the **Licensee** must:
- investigate why the **Emission** occurred;
 - take all reasonable steps to prevent the **Emission** occurring again;
 - record the details of the investigation and all steps taken; and
 - provide a copy of the record to the **CEO** within 21 days of the date **Licensee** became aware **Emission** occurred.
12. The **Licensee** must record the number and details of any complaints received by the **Licensee** relating to the **Premises**, and any action taken by the **Licensee** in response to the complaint. Details of complaints must include:
- an accurate record of the concerns or issues raised, for example a copy of any written complaint or a written note of any verbal complaints made;
 - the name and contact details of the complainant, if provided by the complainant;
 - the date of the complaint; and
 - the details and dates of the actions taken by the **Licensee** in response to the complaints.
13. The **Licensee** must submit to the **CEO** within 30 days after the **Anniversary Date**, a **Compliance Report** indicating the extent to which the **Licensee** has complied with the **Conditions** in this **Licence** for the **Annual Period**.
14. The **Licensee** must comply with a **CEO Request**, within 7 days from the date of the **CEO Request** or such other period specified in the **CEO Request**.

Definitions and Interpretation

Definitions

In this **Licence**, the following terms have the following meanings:

Anniversary Date means the anniversary of the date of grant of this **Licence**.

Approved policy has the same meaning given to the term in the **EP Act**.

Compliance Report means a report in the format specified by the **CEO** from time to time.

Annual Period means a 12 month period commencing from an **Anniversary Date** and concluding one day prior to the subsequent anniversary date.

CEO for the purposes of notification means:

Director General
Department of Environment Regulation
Locked Bag 33 Cloisters Square
Perth WA 6850
info@der.wa.gov.au

CEO Request means a request made by the **CEO** to the **Licensee** in writing, sent to the **Licensee's** address for notifications, as described at the front of this **Licence**, in relation to:

- (a) information, records or reports in relation to specific matters in connection with this **Licence** including in relation to compliance with any **Conditions** and the calculation of fees (whether or not a breach of condition or the **EP Act** is suspected); or
- (b) reporting, records or administrative matters:
 - (i) which apply to all **Licences** granted under the **EP Act**; or
 - (ii) which apply to specified categories of **Licences** within which this **Licence** falls.

Condition means a condition to which this **Licence** is subject under s 62 of the **EP Act**.

Discharge has the same meaning given to that term under the **EP Act**.

Emission has the same meaning given to that term under the **EP Act**.

Environmental harm has the same meaning given to that term under the **EP Act**.

EP Act means the *Environmental Protection Act 1986* (WA).

EP Regulations means the *Environmental Protection Regulations 1987* (WA).

General Description means the description of activities and operations carried out on the **Premises** as set out in Schedule 2 of this **Licence**.

Implementation agreement or decision has the same meaning given to that term under the **EP Act**.

Licence refers to this document, which evidences the grant of **Licence** by the **CEO** under s 57 of the **EP Act**, subject to the **Conditions**.

Licensee refers to the occupier of the **premises** being the person to whom this **Licence** has been granted, as specified at the front of this **Licence**.

Material Change means a change to the activities carried out on the **Premises** as

described in the **General Description** set out in Schedule 2 and:

- (a) that may result in an increased risk to public health, amenity or the environment; and
- (b) includes the types of changes specified in Schedule 2; and
- (c) does not include the excluded changes specified in Schedule 2.

Material environmental harm has the same meaning given to that term under the **EP Act**.

NATA means the National Association of Testing Authorities, Australia

Pollution has the same meaning given to that term under the **EP Act**.

Premises refers to the **Premises** to which this **Licence** applies, as specified at the front of this **Licence** and as shown on the map/plan in Schedule 1 to this **Licence**.

Prescribed standard has the same meaning given to that term under the **EP Act**.

Serious environmental harm has the same meaning given to that term under the **EP Act**.

Unreasonable emission has the same meaning given to that term under the **EP Act**.

Waste has the same meaning given to that term under the **EP Act**.

Interpretation

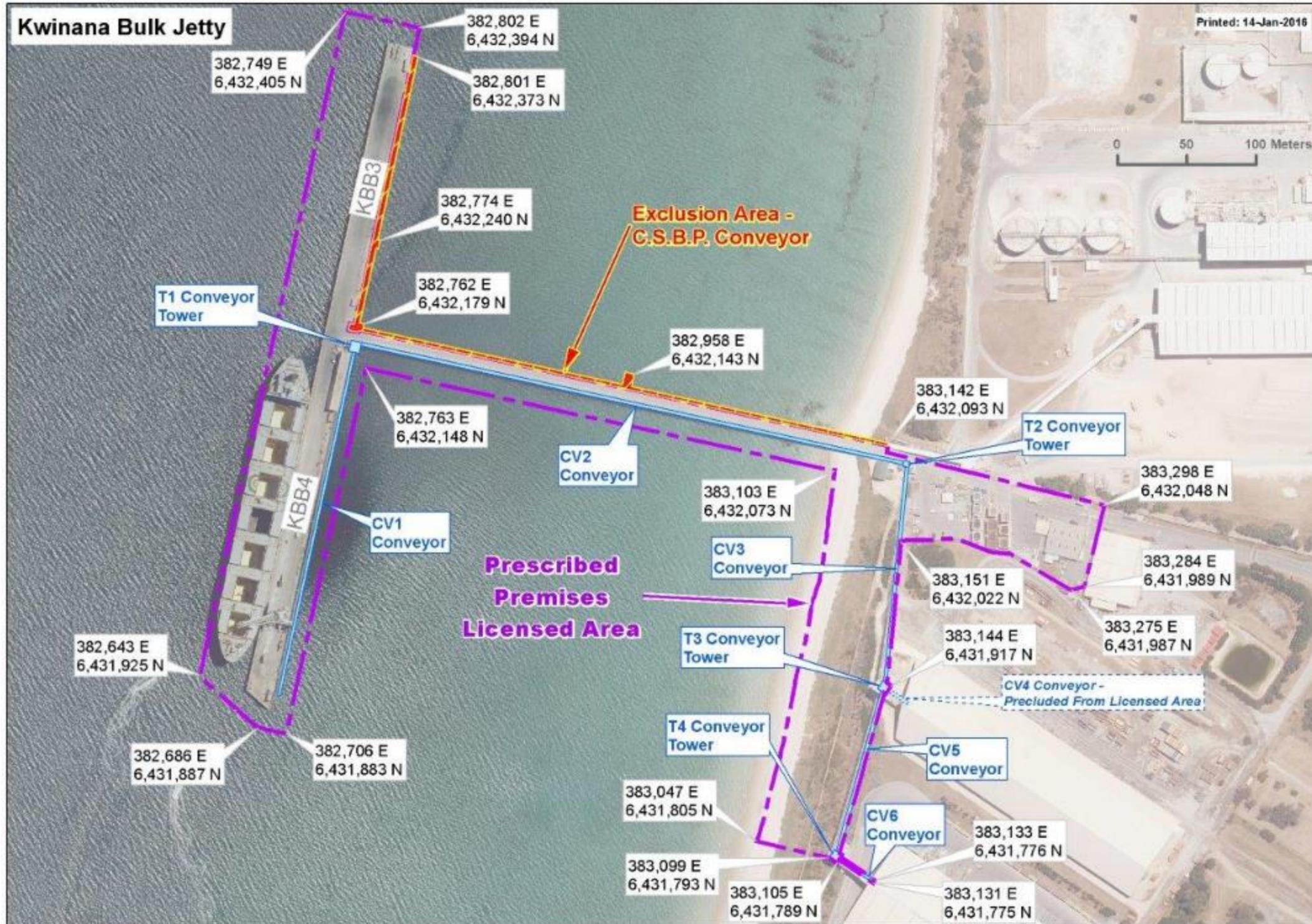
In this **Licence**:

- (a) the words 'including', 'includes' and 'include' will be read as if followed by the words 'without limitation';
- (b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;
- (c) where tables are used in a **Condition**, each row in a table constitutes a separate **Condition**; and
- (d) any reference to an Australian or other standard, guideline or code of practice in this **Licence** means the version of the standard, guideline or code of practice in force at the time of granting of this **Licence** and includes any amendments to the standard, guideline or code of practice which may occur from time to time during the course of the **Licence**.

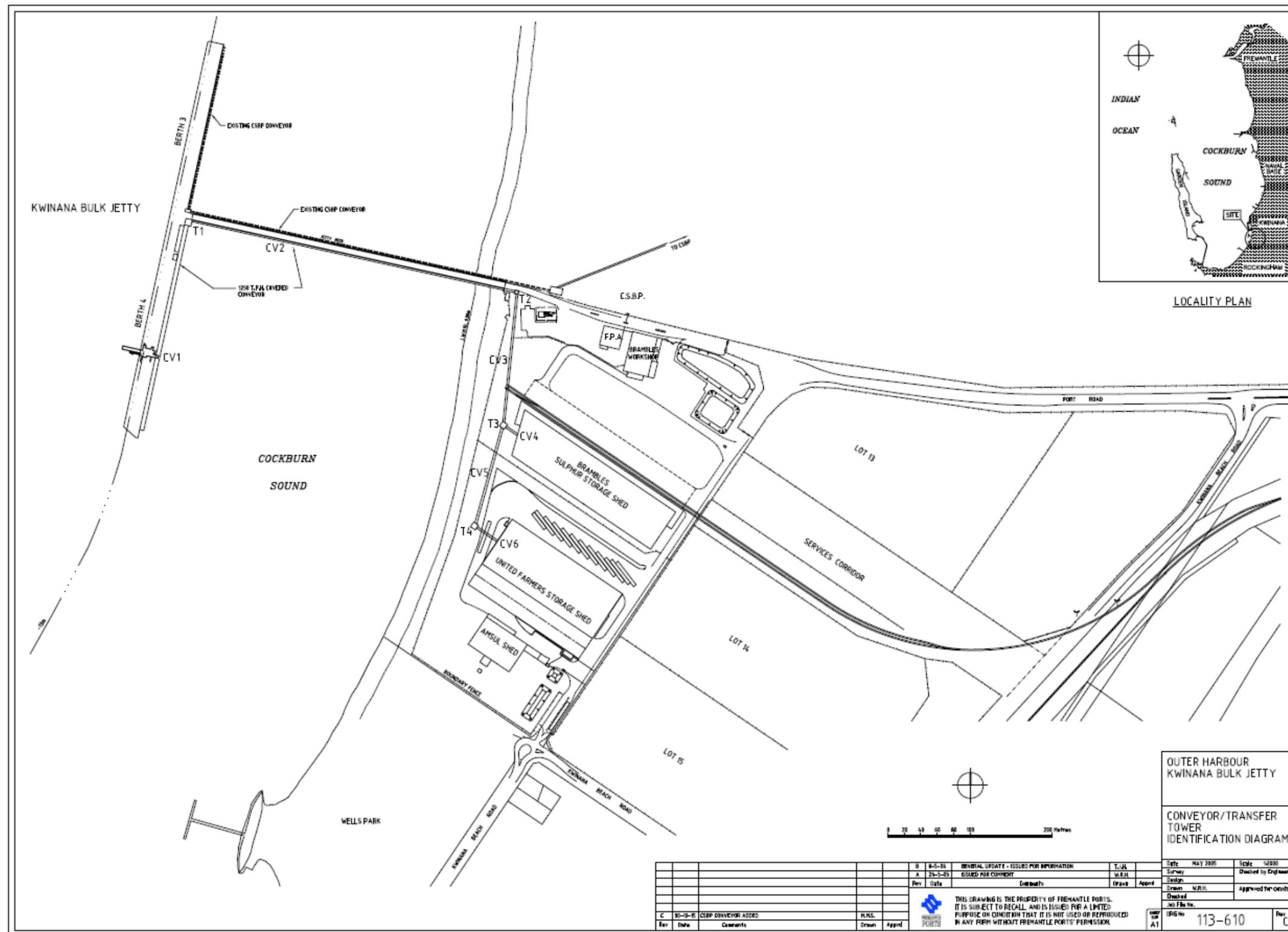
Schedule 1: Maps

Premises Map

The **Premises** are shown in the map below. The purple line depicts the boundary to the **Premises**.



Conveyor/Transfer Tower Identification Plan



OUTER HARBOUR
KWINANA BULK JETTY

CONVEYOR/TRANSFER
TOWER
IDENTIFICATION DIAGRAM

Rev	Date	Comments	Drawn	App'd	Checked	Scale	1:2000
B	8-5-05	GENERAL UPDATE - ISSUED FOR INFORMATION	T.J.L.			Date	MAY 2005
A	25-5-05	ISSUED FOR COMMENT	M.S.H.			Survey	Checked by Engineer
						Design	
						Drawn	W.R.H.
						Checked	Approved for contr.
						Scale	
C	30-03-06	CRP CONVEYOR ADDED	R.N.S.			FIG No	113-610
						Rev	C

Schedule 2: General Description

At the time of assessment, the following activities and operations were considered in the determination of the risk and related conditions for the **Premises**.

The **Licensee** is carrying out activities at the **Premises** which fall within the meaning of Prescribed **Premises** under the **EP Act**. The **Premises** constitutes a Category 58 **Premises** on which bulk granular material (other than salt) is loaded onto or unloaded from vessels by an open materials loading system.

Infrastructure and equipment

KBJ infrastructure, as it relates to Category 58 activities, is detailed in Table 3 with reference to the Premises Map and the Conveyor/Transfer Tower Identification Plan.

Table 3: Infrastructure and equipment

	Infrastructure	Plan reference
1	A single jetty and Berth 3 (KBB3) and Berth 4 (KBB4).	Premises map: KBB3 and KBB4
2	A conveyor system (southern conveyor) originating at Berth 4, split into five sections continuing to the onshore part of the prescribed Premises .	Conveyor/Transfer Tower Identification Plan: CV1, CV2, CV3, CV5 and CV6
3	Transfer towers on the southern conveyor system.	Conveyor/Transfer Tower Identification Plan: T1, T2, T3 and T4
4	A self-contained fully enclosed auger-type continuous unloader (Siwertell unloader).	Not labelled on Site Plan
5	Hopper(s) that receives material from ship grabs.	Not shown on Site Plan
6	Stormwater Drainage and Storage Tank on KBB3 and KBB4	Premises map: KBB3 and KBB4

Site layout

The infrastructure and equipment are set out on the **Premises** in accordance with the site layout specified on the plans in Schedule 1.

Operating Arrangements

The **Licensee** is responsible for all operations and facilities onsite at KBJ including all material handling systems excluding the infrastructure and equipment identified in Schedule 1: Maps.

Bulk Materials loaded and unloaded

The conveyor system delivers bulk product from KBB4 to offsite sheds. Bulk material is also transferred from vessels via a grab to a hopper prior to loading onto trucks positioned below the hopper on KBB3 and KBB4.

Bulk products currently handled through KBJ include ammonium sulfate, cement clinker, granulated slag, gypsum, phosphates, potash, soya bean meal, sulfur and urea.

The **Licensee** operates ship unloading/loading and materials loading system for the following materials:

Table 4: Bulk materials volumes assessed

Commodity	Volume (tonnes)
Ammonium sulfate	20,900 (imported)
Cement clinker	350,300 (imported)
Granulated slag	300,600 (imported)
Gypsum	40,000 (imported)
Phosphates	300,000 (imported)
Potash	90,000 (imported)
Soya bean meal	60,000 (imported)
Sulfur	600,000 (imported)
Urea	300,600 (imported)
Total volume handled	2,062,400

Examples of Material Change

- new commodities;
- volume changes of commodities exceeding 10%;
- changes to the control or ownership of the infrastructure or equipment within the **Premises**; and
- changes to the site layout of infrastructure and equipment specified on the plans in Schedule 1.

Non-Material Change

- Improvements or additions to infrastructure and equipment that decrease risk of **Emissions** and **Discharges**.

Schedule 3: Infrastructure and Equipment

Table 5: Infrastructure and equipment controls table

	Column 1	Column 2
	Infrastructure/Equipment	Requirements
Dust Management		
1.	A self-contained fully enclosed auger-type continuous unloader (Siwertell) onto CV1 conveyor	<p>Vertical screw conveyor system which transfers material from ships hold either:</p> <ul style="list-style-type: none"> • directly onto the conveyor belt system; or • underneath through bellows (chutes) to trucks. <p>Dust extraction system at the gantry conveyor must be on, operating and not full or blocked when unloading suitable dusty products (excl. sulfur).</p> <p>For the unloading of sulfur, water sprays must be used to minimise dust generation.</p>
Spill Management		
2.	Ship grab and hoppers (Deflector plates) Berths 3 and 4	<p>Deflector plates are to be designed and maintained to deflect spills from the grabs to deck of the jetty.</p> <p>Deflector plates are to be in place along the length of loading/unloading area when loading or unloading of vessels using the grabs.</p>
3.	Conveyor system (CV1, CV2, CV3, CV5, CV6)	<p>Bulk granular material must not spill, or cause to be spilt, into the marine environment.</p> <p>Enclosed conveyor system designed with:</p> <ul style="list-style-type: none"> • steel clad walls and roof (excluding CV1 which has no roof); and • an under floor spill tray which is either sloped to direct spills and washwater to collection point via a gutter or contained to prevent spills entering the environment.
4.	Transfer Stations (T1, T2, T3, T4)	Enclosed transfer stations with fiberglass clad walls and roof and concrete flooring.
5.	Specified Action KBB3 and KBB4 and Jetty Neck.	Following the completion of loading or unloading activities involving the use of ship grabs and/or hoppers the berth used

	Column 1	Column 2
	Infrastructure/Equipment	Requirements
		and jetty neck is cleaned to remove any spilt or accumulated material.
Washwater and stormwater management		
6.	Stormwater containment infrastructure for KBB3 and KBB4	<p>Vessels and their holds, deck and equipment must not be washed into marine waters.</p> <p>Collect and contain stormwater contaminated with product and washwater that collects on the deck of the wharf, so that it does not enter marine waters. Berths banded and sealed to contain all product contaminated stormwater/wastewater and prevent any material spilt entering the marine environment.</p> <p>Product contaminated stormwater/wastewater directed to drains located on the berths.</p> <p>Product contaminated stormwater/wastewater either held in holding tank or pumped into truck for disposal.</p>

Schedule 4: Monitoring

Monitoring locations

KBJ1, KBJ2 and KBJ3 on the Marine Monitoring map attached.

Monitoring Reports

The monitoring reports must contain:

- the sampling or measurement date;
- the raw monitoring data for the sampling event in tabulated form with reference to the applicable EQC;
- time series graphical plots of the data if EQC are exceeded;
- meteorological and/or met ocean data for the day(s) of sampling;
- activities being undertaken on KBJ 24 hours prior to and at the time of sampling/measurement.

Cockburn Sound reporting frequency

Annually by the last day of September in any year

Marine Monitoring Location Map





Review of Existing Premises

Division 3, Part V *Environmental Protection Act 1986*

Applicant:	Fremantle Port Authority
ACN/ABN:	78 187 229 472
Licence Number:	L4474/1976/14
File Number:	DER2015/2745
Premises:	Kwinana Bulk Jetty Port Rd KWINANA BEACH WA 6167 Lot 4552 on Plan 220690
	And
	Portion of Lot 497 on Plan 35196
Date of report:	Friday, 29 July 2016
Status of Report	Final

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1. Background

Fremantle Port Authority (Licensee) holds an existing licence (L4474/1976/14) for a Category 58 premises under the *Environmental Protection Act 1986* (EP Act) for the Kwinana Bulk Jetty (KBJ). KBJ is located within the Kwinana Industrial Area and has two berths extending into the Cockburn Sound. The Licensee has held a licence for the KBJ since 23 September 2000. KBJ has been licensed since 1976.

The Licensee is a port authority established by section 4 of the *Port Authorities Act 1999* (PA Act). KBJ is a port controlled and managed by the Licensee under the PA Act. The land upon which KBJ is situated is port land under the PA Act, meaning land vested or acquired by a port authority.

As part of the Western Australian State Government consideration of port asset divestment the Licensee requested the Department of Environment Regulation (DER) review and update licence L4474/1976/14 to ensure that the regulatory obligations were appropriate for the current operation.

No works or operational changes are proposed by the Licensee for KBJ in relation to this licence review. However, the Licensee has requested that an amendment to the defined prescribed premises to exclude the northern conveyor operated by CSBP Limited (CSBP). Additionally, DER has amended the premises boundary to include conveyors (CV5, CV6) and transfer station T4 as they form part of the materials handling system. As a result of this licence review, the existing licence has been revised (Revised Licence). As this is an amendment to the existing licence, a new licence number will not be created as part of this review and will continue as L4474/1976/14.

The Macfertil Australia Pty Ltd (Macfertil) and the Brambles Industrial Services (BIS) sheds remain excluded from the premises.

Following issuing of the Revised Licence on 9 June 2016, it was noted that there was an administrative error within the instrument. An amendment to the Licence has been made under section 59(1)(e) of the EP Act and the Revised Licence is set out at Attachment 1.

The review has been undertaken in accordance with DER's risk-based approach as set out in DER's *Guidance Statement on Regulatory Principles* (July 2015).

2. Overview of KBJ

KBJ is one part of the Licensee's operations. KBJ is a bulk loading and unloading common user facility located within Cockburn Sound.

It comprises of a single jetty neck extending in a west to north-westerly direction and then divides into two berths (Berth 3 (KBB3) and Berth 4 (KBB4)) which extend in a north-south direction.

A separate conveyor system aligns with the two berths. The southern conveyor system conveys material to premises adjacent to KBJ occupied by Bis and Macfertil.

2.1 Infrastructure

KBJ infrastructure, as it relates to Category 58 activities is detailed in Table 1 with reference to the Site Map (attached to the Revised Licence).

Table 1. KBJ Category 58 infrastructure

	Infrastructure	Plan reference (Site Plan – Attachment 3)
1	A single jetty and Berth 3 (KBB3) and Berth 4 (KBB4).	KBB3 and KBB4
2	A conveyor system (southern conveyor) originating at KBB4, split into five sections continuing to the onshore part of the prescribed premises.	CV1, CV2, CV3, CV5 and CV6
3	Transfer towers on the southern conveyor system.	T1, T2, T3 and T4
4	A self-contained fully enclosed auger-type continuous unloader (Siwertell unloader).	Not shown on Site Plan
5	A hopper that receives material from ship grabs.	Not shown on Site Plan

2.2 Operational Aspects

The conveyor system delivers bulk product from KBB4 to offsite sheds. Bulk material is also transferred from vessels via a grab to a hopper prior to loading onto trucks positioned below the hopper.

The Licensee provides stevedoring and shed handling services to Macrofertil, and maintenance services for the wharf and Siwertell unloader services for CSBP. The Licensee provides use of KBJ to three berth operators (Patrick's, QUBE and Coogee Chemicals) via a Common User Agreement. These operators have a non-exclusive lease to use common user berths at KBJ. Under the terms of the Common User Agreement, the Licensee may enter common user berths at any time and provide direction to a berth operator. DER confirms that the Licensee is the occupier of the premises for the purposes of holding a licence under Part V of the EP Act.

Information on the bulk granular materials imported at KBJ for the 2014-2015 period as provided by the Licensee is set out in Table 2 below. There are currently no bulk granular materials exported at KBJ.

Table 2. Bulk granular materials imported at KBJ 2014-2015

	Product	Product owner
Import	Ammonium sulfate	Macrofertil
	Phosphates	Summit, Superfert,

	Product	Product owner
		Macrofertil
	Potash	Summit, Macrofertil
	Soya bean meal	Glencore Grain Pty Ltd
	Sulphur	Minara Resources
	Urea	Summit, Superfert, Macrofertil
	Granulated Slag	BCG, Cockburn Cement
	Cement Clinker	Cockburn Cement
	Gypsum	BCG Pty Ltd

2.3 Exclusions

2.3.1 Non-bulk granular material

DER has only assessed bulk granular material that is imported from KBJ and managed by the Licensee.

The following infrastructure which is not relating to bulk granular materials but which is located within the premises has been excluded from assessment and the Revised Licence:

- ammonia import/export pipelines; and
- fuel pipelines.

2.3.2 Third party infrastructure

The following infrastructure which is not owned or operated by the Licensee but which is located within the premises has been excluded from assessment and the Revised Licence:

- the northern conveyor situated on KBB3 which is owned and operated by CSBP pursuant to a State Agreement; and
- CV4 which is owned by Minara Resources and controlled and operated by BIS under an exclusive lease arrangement.

2.4 Inclusions

The southern conveyor includes the conveyors to transfer station T3 and to the Macrofertil shed via CV5, T4 and CV6.

The premises description in the existing licence includes the T3 and a section of CV5 south of T3.

BIS' activities of managing and reclaiming stockpiles of bulk material in the BIS shed for dispatch do not constitute activities from a prescribed premises. DER has had regard to its *Guidance Statement on Licensing and works approval processes* (September 2015) and does not consider these activities as secondary. This is primarily because bulk stockpiling and storage of the material is not a prescribed activity, that is, it is not encompassed by the

description of Category 58. For these reasons, the BIS shed is not included within the premises boundary.

DER has concluded that CV5 and T4 and CV6 forms part of the primary activity of loading and unloading bulk materials at KBJ as these form part of the primary activities of the port. This infrastructure is owned, operated and managed by the Licensee, and is now included in the premises in the Revised Licence.

3. Legislative Context

3.1 Part IV of the EP Act

KBJ has been assessed by the Environmental Protection Authority (EPA) in relation to an extension. [Magellan]. These Ministerial Statements have been considered below.

3.1.1 Ministerial Statement 549 and 848

Ministerial Statement 549 was issued on 13 July 2000 and authorised the Kwinana Export Facility proposal. The proposal included a southern extension of KBJ (new berth), an access jetty, an enclosed conveyor and a bulk material ship loader, a further conveyor, storage and rail infrastructure for the handling and transport of iron ore. A condition within the Ministerial Statement required the proposal to be implemented within five years of publication of the Statement (13 July 2005), with any extensions requiring the Ministers approval.

Under section 46 of the EP Act, approval to amend the proposal was granted from the Minister (Ministerial Statement 848) on 3 December 2010 to extend the implementation period to 13 July 2015.

To date the proposal has not been substantially implemented and as a result the Ministerial Statement has ceased to have effect.

3.1.2 Ministerial Statement 559 and 783 – Magellan Lead Carbonate Project

Ministerial Statement 559 was issued on 28 November 2000 and authorised the mining and export of lead carbonate ore concentrate undertaken by Magellan Metals Pty Ltd (Magellan). The export of this material by Magellan via an open bulk materials loading system between June 2005 and March 2007 at the Port of Esperance resulted in spillages and fugitive releases of lead carbonate ore concentrate causing pollution. Lead carbonate is not currently being exported from KBJ.

Magellan requested a change to its export handling and transport procedures to transport lead carbonate concentrate through the Port of Fremantle in sealed bulk bags contained inside locked steel shipping containers. The change to the proposal was approved on 2 February 2009 through Ministerial Statement 783.

Following a stop order issued on 31 December 2010, the Minister for Environment on 23 February 2011 imposed Interim Implementation Conditions on Magellan under Section 45B of the EP Act in order to strengthen the auditing, monitoring and reporting requirements of the project to allow Magellan to resume the transportation of lead carbonate concentrate. The stop order was imposed following instances of a potential non-compliance relating to lead levels outside the bulk bags, within the shipping containers, exceeding trigger levels. The Interim Implementation Orders superseded Ministerial Statement 559 and 783.

EPA Report 1415, published on October 2011, provides comment on the effectiveness of the Ministerial Statements and the Interim Implementation Conditions. Report 1415, noted that the EPA was confident that the method of transportation of lead carbonate in bulk bags within shipping containers was appropriate to protect human health and the environment.

3.2 Applicable Standards and Guidelines

3.2.1 Environmental Protection (Kwinana) (Atmospheric Wastes) Policy 1999

Environmental Protection Policies (EPPs) are statutory policies developed under Part III of the EP Act).

The *Environmental Protection (Kwinana) (Atmospheric Wastes) Policy Approval Order 1999* (Kwinana EPP) and *Environmental Protection (Kwinana) (Atmospheric Wastes) Regulations 1992* (Kwinana EPP Regulations) provides ambient air quality standards and ambient air quality limits for the concentration of atmospheric wastes. Clause 6(2) of the Kwinana EPP excludes the concentration of any discharge of atmospheric waste generated within the boundaries of the industrial premises emitting the waste, and applies to contribution to the concentration of the atmospheric waste beyond its boundaries.

The Kwinana EPP defines three areas (Area A, B and C), where:

- Area A is the area of land on which heavy industry is located;
- Area B is outside Area A and is zoned for industrial purposes from time to time under a Metropolitan Region Scheme or a town planning scheme;
- Area C is beyond Areas A and B, predominantly rural and residential.

KBJ resides within Policy Area A. Schedule 2 of the Kwinana EPP Regulations provides standards and limits identified in Table 3.

Table 3. Kwinana EPP Regulations ambient air quality standards and limits

Ambient air quality standards and ambient air quality limits – total suspended particulates				
Item	Area	Standard Limit ($\mu\text{g}/\text{m}^3$)	Limit ($\mu\text{g}/\text{m}^3$)	Averaging period
1	Policy Area	-	1,000	15 minutes
2	Area A	150	260	24 hours

The Policy defines 'standard' the *concentration of an atmospheric waste which it is desirable not to exceed* and 'limit' as the *concentration of an atmospheric waste which is not to be exceeded*.

This review has had regard to the Kwinana EPP and EPP Regulations in assessing the risk of fugitive dust emissions for KBJ beyond the boundary of the premises.

3.2.2 The State Environmental (Cockburn Sound) Policy 2015

State Environmental Policies are non-statutory policies developed by the EPA under Part II

section 17(3)(d) of the EP Act. They are considered by Cabinet for adoption on a whole-of-Government basis.

The *State Environmental (Cockburn Sound) Policy 2015* (Policy) identifies environmental values for Cockburn Sound that must be maintained. The Policy establishes the environmental values and specifies Environmental Quality Objectives (EQO) and Environmental Quality Criteria (EQC). EQCs are comprised mostly of numerical values, with some narrative statements, and are documented in the *Environmental Quality Criteria Reference Document for Cockburn Sound*, EPA, 2015.

The Policy provides that public authorities with management or regulatory responsibilities in the policy area should have regard for the purpose and content of the Policy in any decision-making related to the policy area. KBJ is situated within the Policy area and specifically within an area mapped as Moderate ecological protection (Schedule 2 of the Policy).

This review has had regard to the purposes and content of the Policy in assessing the risk to Cockburn Sound from KBJ.

Monitoring of water quality by the Licensee at KBJ is reported to the Cockburn Sound Management Council (CSMC) and also annually to DER under conditions in the existing licence. CSMC is established under section 25(1) of the EP Act and its terms of reference are set out in the Policy.

3.3 Other Approvals

3.3.1 Industrial Lands (Kwinana) Agreement No. 93, 1964

This agreement enabled the construction in Cockburn Sound of a wharf suitable for the operations of CSBP, BP and Kwinana Nitrogen Company Pty Ltd (KNC) and further enabled CSBP or the State to install on the wharf such conveyors, cranes, appliances and facilities as are suitable for the efficient loading and discharge of vessels at the CSBP portion of the wharf.

4. Site History under Part V of the EP Act

4.1 Works approvals

There have been no works approvals issued for KBJ for the period 1 January 2006 to 6 May 2016.

4.2 Licence amendments

The last licence amendment was made on 4 April 2012 through a licence re-issue by DER. Condition 16 was added to the licence requiring the Licensee to submit an environmental improvement plan (EIP) by 30 September 2012. The EIP was submitted by the due date and contained a number of commitments including:

- development of Environmental Incident Management Plan, proposed completion March 2013;
- Air Quality Monitoring Program which was comprised of an initial three month monitoring program, proposed completion March 2013;

- replacement of spill trays on CV1, proposed completion August 2013;
- investigate the feasibility of an automated containment system on KBB3, proposed completion May 2013.

The requirements of the EIP have been considered in this review.

4.3 Compliance inspection

A compliance inspection was undertaken on 16 January 2014. Non-compliance with Condition 6 of the existing licence was observed and related to the conveyor system on KBB3 (CSBP conveyor) not being fully enclosed.

In response, the Licensee submitted that the conveyor was not actually specified in Condition 6 and that the conveyor was not actually owned, operated or controlled by the Licensee and should therefore not be subject to requirements of the licence.

This matter has been considered and the CSBP conveyor has been excluded from the Revised Licence.

4.4 Monitoring and Annual Audit Compliance Reports

Annual Audit Compliance Reports (AACR) have been submitted annually in accordance with Condition 19 of the existing licence during the period from 1 January 2012 to December 2015.

One non-compliance was noted (report submitted for the 2012/2013 period) where the Licensee failed to report the number of complaints received in the reporting period. The Licensee responded to this non-compliance and no further action was required.

4.5 Compliance history check

There have been no statutory notices given or prosecutions since 1 January 2006 to the date of this report.

4.6 Monitoring data

The Licensee implemented a short term monitoring program from February to April 2013 to determine levels of TSP emitted during bulk material handling operations. The program was undertaken as part of an EIP required by Condition 16 of the existing licence.

Based on the result of the monitoring, the average TSP was calculated not to have exceeded Schedule 2 of the Kwinana EPP Regulations limits.

4.7 Contaminated site matters

On 25 September 2008, Lot 497 on Plan 35196 was classified as "Possibly Contaminated - investigation required" under the *Contaminated Sites Act 2003*. Lot 497 comprises the premises and land on which BIS and Macrofert operate. DER notes that although the site is still considered suitable for its current use, there are groundwater contamination issues:

- elevated concentration of ammoniacal nitrogen at the north-west boundary, which adjoins the premises at CV5 and CV6; and

- elevated phosphorous and nitrate detected throughout the southern portion.

5. Location and Siting

5.1 Siting Context

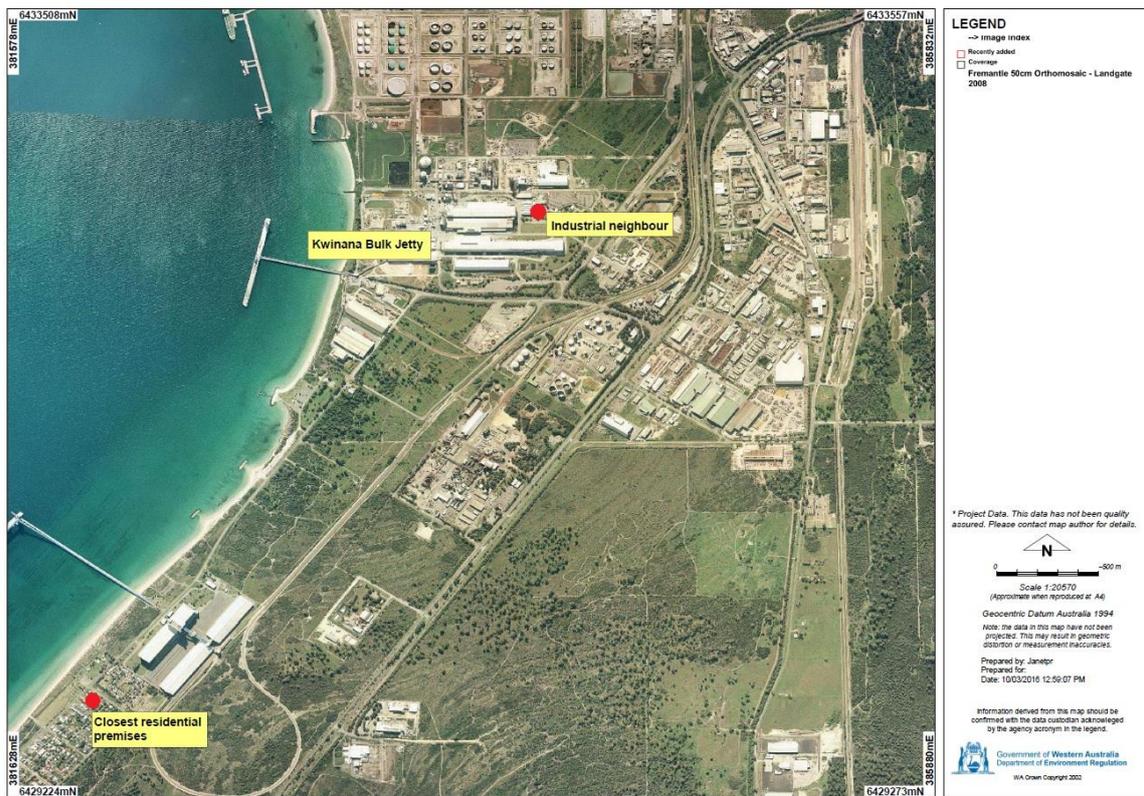
KBJ is located centrally within the Kwinana Industrial Area (KIA), a significant industrial estate in Western Australia. The KIA covers an area of approximately 8 kilometres (km) north-south and 2kms east-west, on the eastern side of Cockburn Sound, approximately 30kms south of the Perth Central Business District. The KIA contains a highly diverse range of industries from smaller service industries to very large heavy process industries.

5.2 Residential and Industrial Neighbours

Table 4. Distance to residential and sensitive receptors

Residential and Sensitive Premises	Distance from Prescribed Activity
Closest residential premises (Residential zone)	2,300 metres (m) to the south-west (measured from the point at which the jetty meets the shore)
Industrial neighbour (Industrial zoning)	Immediately adjacent to the premises with the closest office buildings located approximately 1,200m north-east of the ship-loading facilities

Figure 1. Residential and industrial neighbours



5.3 Specified Ecosystems

Table 5. Siting in respect of specified ecosystems

Sensitive ecosystems	Distance from Prescribed Premises
Cockburn Sound (proclaimed State Environmental Policy area)	Within and directly adjacent to the premises boundary
Resource enhancement wetland - unnamed	2,350m to the east
Conservation Category wetland – unnamed	2,350m to the east

5.4 Groundwater and water sources

Table 6. Location in respect of groundwater and water sources

Groundwater and water sources	Distance from Prescribed Premises	Environmental Value
Bore users (beneficial use)	Five bores are located within the premises boundary. Four of these are listed as having no current owner. One of these is used for irrigation and the three others for monitoring. One other bore is privately owned and used for operational purposes.	Beneficial use – industrial and non-potable use

The Standing Water Level of all bores ranges from 2.6m to 3.0m below ground level (mbgl).

5.5 Soil Type

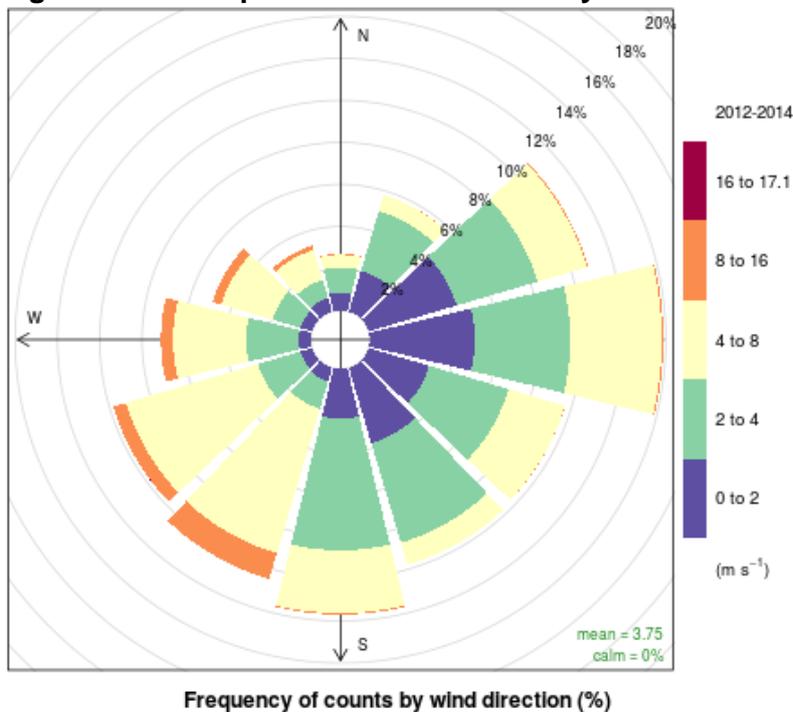
KBJ is located on coastal dunes and consists of sandy soils.

5.6 Meteorological Context

5.6.1 Wind direction and strength

DER has produced five minute averaged data for Wattleup, DER's closest available site to the Kwinana port area for the period spanning 01 January 2012 to 31 December 2014. The following wind rose (Figure 2) provides the annual wind direction and strength for this period at the Wattleup site.

Figure 2. Wattleup wind rose for 1 January 2012 – 31 December 2014



5.6.2 Regional climatic aspects

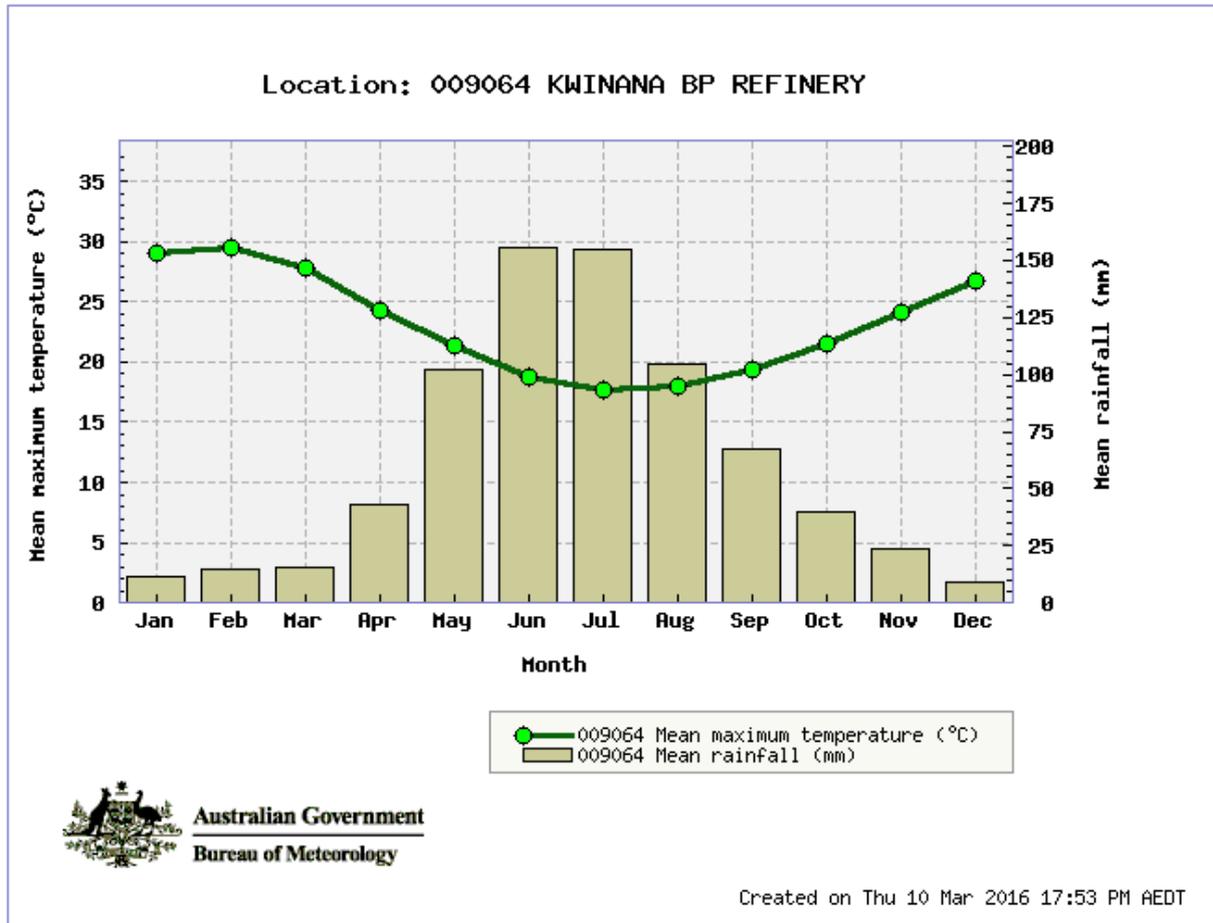
Kwinana is located in a Mediterranean climate with mild winters and hot dry summers.

The Perth region has a dominant spring and summer wind direction from the west-south-west swinging to the south by early evening. In the winter months, lighter winds from the east to north-east prevail.

5.6.3 Rainfall and temperature

The Bureau of Meteorology provides the mean rainfall and maximum temperature for Kwinana BP Refinery (mean maximum temperature 1948-2016 and mean rainfall 1942 to 2016) shown in Figure 3. The Kwinana region is warm to hot between October to April with rainfall predominantly over April to November.

Figure 3.- Mean temperature and rainfall Kwinana



6. Risk Assessment

6.1 Hazard – Pathway – Receptor identification

The emission types have been identified with the pathways and receptors in Table 7 below.

Table 7. Emissions risks from the prescribed premises

	Emission Type			
	Dust (from materials handled)	Noise (from infrastructure and operations)	Discharge to Waters (from contaminated stormwater and materials handled)	Discharge to Land (from contaminated stormwater and materials handled)
Potential Receptor (see Section 6.2 for receptor details)	<ul style="list-style-type: none"> Residence Industrial neighbours 	<ul style="list-style-type: none"> Residence Industrial neighbours 	Cockburn Sound marine environment	Groundwater
Pathway Type	Air (wind borne)	Air (wind borne)	Direct spills and contaminated stormwater	Direct spills and contaminated stormwater
Pathway Assessment (see Section 5.6 for meteorological details)	<ul style="list-style-type: none"> Residence: no pathway due to sufficient distance from prescribed premises. Industrial neighbours: pathway through prevailing winds. 	<ul style="list-style-type: none"> Residence: no pathway due to sufficient distance from prescribed premises. Industrial neighbours: pathway through air 	KBJ is located within the marine environment and within the Cockburn Sound Management Council policy area. The berth and Jetty are located within a Moderate Ecological Protection Area (Cockburn Sound Policy Area). Material may enter the marine environment directly from spills during ship loading and unloading or through openings (gaps and drainage holes) which allow a direct pathway.	Sandy soils with groundwater recorded at a depth of 2.6 to 3.0 mbgl.

Emission Type				
	Dust (from materials handled)	Noise (from infrastructure and operations)	Discharge to Waters (from contaminated stormwater and materials handled)	Discharge to Land (from contaminated stormwater and materials handled)
Potential impact	<ul style="list-style-type: none"> Amenity impacts: may include visible dust plumes and can also include the deposition of material on vehicles, plant and equipment. Public health effects may include potential acute effects such as hayfever and asthma and chronic effects may include reduced respiratory function. 	Amenity impacts: potential to impact amenity and comfort.	Ecosystem health: potential impact on marine environmental. Fertilisers and phosphate can be taken up by biota causing eutrophic changes in the benthic habitat.	Ecosystem health: potential reduction of groundwater quality.

6.2 Emission Sources

Due to the different handling process for the materials, emissions sources vary. Material descriptions and handling summary are set out in Table 8 below:

Table 8. Material descriptions and handling summary

	Description	Handling
Sulfur, fertilisers and phosphates (excluding phosphate rock (S, F and P))	<p>Sulfur is classified as a Class 4.1 - Flammable solid dangerous good however is stable under normal ambient conditions. Fines can arise.</p> <p>Sulfur is moderately soluble and may increase the pH of water.</p> <p>Fertilisers include urea and potash (or potassium chloride) and ammonium sulfate.</p> <p>Phosphates include diammonium phosphate (DAP), monammonium phosphate (MAP) and triple superphosphate (TSP).</p> <p>Dust is mitigated to some extent for most of these products due to the presence of a wax-like anti-caking agent. Fines may arise from these materials.</p> <p>These fertilisers and phosphates are soluble.</p>	<ul style="list-style-type: none"> Sulfur is unloaded via the Siwertell prior to transfer onto the southern conveyor at KBB4. The southern conveyor system discharges sulfur directly offsite to CV4 and into the BIS shed (for storage of sulfur) through CV1, T1, CV2, T2, CV3 and T3. Fertilisers and phosphates are unloaded by the ship's grab into an open truck via a hopper prior to being taken directly offsite. Fertilisers and phosphates can also be unloaded by the Siwertell before transferring material directly onto the southern conveyor at KBB4. The southern conveyor system discharges fertiliser and phosphates directly offsite to the Macrofertil shed via CV1, T1, CV2, T2, CV3 T3, CV5, T4 and CV6.
Phosphate Rock (PR)	<p>Phosphate rock consists of very fine particles which are readily suspended as dust.</p> <p>Phosphate rock is not soluble in water.</p>	<p>Phosphate rock is unloaded by the ship's grab into an open truck via a hopper prior to being taken directly offsite. Phosphate rock can also be unloaded by the Siwertell before transferring material directly onto the southern conveyor at KBB4.</p> <p>The phosphate rock is then conveyed to the Macrofertil shed on the conveyor system as described for sulfur, fertilisers and phosphates.</p>
Cement Clinker (CC)	<p>Cement clinker is granular material ranging from 3mm to 25mm in diameter comprised of calcium silicates. Fines are readily suspended as dust.</p> <p>Cement clinker is soluble in water.</p>	<p>Cement clinker is unloaded by the ship's grab into an open truck via a hopper prior to being taken directly offsite.</p>
Other (granulated slag, gypsum)	<p>Gypsum is a soft sulfate mineral composed of calcium sulfate dehydrate.</p> <p>Gypsum is sparingly soluble in water.</p> <hr/> <p>Granulated slag comprises of golf-ball sized round nuggets. Fines can arise although physical characteristic of this material limits this potential.</p> <p>Granulated slag is not soluble in water.</p>	<p>All materials are unloaded by the ship's grab into an open truck via a hopper prior to being taken directly offsite.</p>

Potential emission sources for dust, noise, discharges to water and to land are identified in Table 9.

Table 9. Emission sources

		Emission						
		Dust*				Noise	Discharge to Water	Discharge to Land
		S, F and P	PR	CC	Other			
Source (see Section 2.1 for infrastructure references)	Grab, hopper and truck loading facility	•	•	•	•	•	•	
	Siwertell	•	•					
	Conveyor (CV1)	•	•					
	Transfer station (T1)	•	•				•	
	Conveyor (CV2)	•	•					
	Transfer station (T2)	•	•					•
	Conveyor (CV3)	•	•					•
	Transfer station (T3)	•	•					•
	Conveyor (CV5)	•	•					•
	Transfer station (T4)	•	•					•
	Conveyor (CV6)	•	•					•
	Vehicle movement	•	•	•	•	•		•
	Stormwater drainage system and holding tank						•	

* Potential sources as identified in Table 8 - Material descriptions and handling summary

6.3 Risk of Dust Impact Analysis

6.3.1 General Hazard Characterisation

National and international occupational and environmental health databases (United States Environmental Protection Agency, Agency for Toxic Substances and Disease Registry, International Programme on Chemical Safety (US) National Institute for Occupational Health and Safety, National Occupational Health and Safety Commission) were used to review toxicology profiles of all granular bulk materials imported at KBJ.

None of the materials were identified on the databases as presenting a toxic or carcinogenic risk to public health or the environment. Sulfur is classified as a Class 4.1 - Flammable solid dangerous good and identified as a health hazard by the National Occupational and Safety Commission (NOHSC) due to its flammable properties and potential to irritate skin.

Fugitive dust is comprised of particulate matter (PM) which ranges in size from 0.005 to 100 micron (μm). TSP is used to measure fractions below 100 μm .

PM_{10} is used to describe all particles that are smaller than 10 μm in diameter. PM_{10} is often used and the particle size is small enough to penetrate into the lungs during inhalation and cause adverse human health effects.

6.3.2 Air Quality Criteria for Dust

KBJ is located within Policy Area A of the Kwinana EPP and as such, the following criteria from the Kwinana EPP Regulations have been considered as the acceptable levels of PM (ambient ground level concentration) at the sensitive receptor.

Table 10. Air Quality Criteria – Kwinana EPP

Ambient air quality standards and ambient air quality limits – total suspended particulates				
Item	Area	Standard Limit ($\mu\text{g}/\text{m}^3$)	Limit ($\mu\text{g}/\text{m}^3$)	Averaging period
1	Policy Area	-	1,000	15 minutes
2	Area A	150	260	24 hours

6.3.3 Volume and Frequency Considerations

Due to the nature of fugitive dust emission concentrations of PM at generation points/sources are not quantified. However, consideration has been given to the volume and frequency of the materials (based on the 2014-2015 period).

The volume of phosphate rock (as a component of all phosphates) imported for the 2014-2015 period was not available for this assessment. The quantity is included in the volume indicated for phosphates.

Table 11. Volume and frequency of materials based on 2014 – 2015 period

	Volume	Frequency
Sulfur, Fertilisers and Phosphates	932,073 tonnes imported	28 shipping movements per year Average duration per shipping movement 99-349 hours/year (total number of days: 72)
Phosphate Rock	533,621	Approximately 16 per year. Average duration per shipping movement 99-349 hours/year (total number of days: 42)
Cement Clinker	321,300 tonnes imported	13 shipping movements per year Average duration per shipping movement 256 hours/year (total number of days: 10)
Other (granulated slag, gypsum)	390,800 tonnes imported	17 shipping movements per year Average duration per shipping movement 106-232 hours/year (total number of days: 31)

6.3.4 Assessment of Proponent Controls

DER has observed by site visit and licence file review that the Licensee has the following controls in place for control of dust emissions.

- Dust controls for uploading using grab-hopper and truck facility:
 - operation of ship grab and hoppers supervised;
 - operations are stopped in the event of windy conditions and generation of excess dust;
 - sweeper trucks are used to remove dust and spilt material from all trafficable areas within the premises;
 - inspected by Licensee personnel (Environmental Advisor) following ship loading/unloading;
 - recording, investigation and actioning of complaints; and
 - all loads are covered prior to leaving the premises;
- Dust controls for uploading using Siwertell and transfer to conveyor:

- sweeper trucks are used to remove dust and spilt material from all trafficable within the prescribed premises;
- fully enclosed auger-type Siwertell discharging directly to shielded southern conveyor on jetty; and
- the Siwertell is fitted with a dust extraction unit and transfers material directly onto the northern conveyor at KBB3 or the southern conveyor at KBB4; and
- Dust controls for conveyance along southern conveyor of materials to BIS and Macrofertil shed:
 - sweeper trucks are used to remove dust and spilt material from all trafficable within the prescribed premises;
 - enclosed transfer towers;
 - CV1 and CV2 has shedding plate and fully shielded conveyor which are regularly cleared of spills;
 - fully enclosed conveyor on offshore section passed transfer point T2; and
 - all transfer stations (T1, T2, T3 and T4) are enclosed.

6.3.5 Impact

The short term monitoring program to monitor TSP undertaken in 2013 indicated that the Kwinana EPP Regulations is not exceeded at the boundary of the premises.

There have been no complaints regarding dust emissions from KBJ recorded in the past 24 months.

6.3.6 Consequence

In consideration of the relevant factors discussed in this report, in particular the nature of materials, DER considers that no discernible impact to amenity and no exceedances of the Kwinana EPP are expected outside of the premises boundary contributed by KBJ, impact to amenity would be for a short period of time to a small population (industrial neighbours).

DER considers that the consequence on ecosystem health arising from dust emissions would only result in minor off-site impacts at a local scale as a result of the type and volumes of materials handled on the premises.

Consequence rating is therefore minor.

6.3.7 Likelihood of consequence

In consideration of the relevant factors discussed in this report, in particular the volume and nature of materials handled, previous monitoring data and an absence of complaints, DER considers that the likelihood of dust impacting on amenity and the ecosystem is unlikely to occur except for phosphate rock and cement clinker where the likelihood is possible.

Likelihood rating is therefore possible for phosphate rock and cement clinker and unlikely for all other dust sources.

6.4 Risk of Noise Analysis

6.4.1 General Hazard Characterisation

Noise generated from the normal operations onsite including noise from vehicle movement, truck and loader, product movement and reverse alarms.

6.4.2 Noise Criteria

KBJ is located within the KIA as such, the criteria in table 12 from the *Environmental Protection (Noise) Regulations 1997* (Noise Regulations) have been considered as acceptable to industrial receptors (In A, B and C).

Table 12. Assigned noise level criteria

Type of premises receiving noise	Time of day	Assigned level (decibels - dB)		
		L _A 10	L _A 1	L _A max
Industrial and utility premises in the Kwinana Industrial Area	All hours	75	85	90

6.4.3 Assessment of proponent controls

No proponent controls for noise have been identified.

6.4.4 Impact

Noise has the potential to impact amenity and comfort. There are no complaints regarding noise from KBJ recorded in at least the past 24 months.

6.4.5 Consequence

Taking into consideration the relevant factors discussed in this report, mainly in respect of the operations compliance with the Noise Regulations, DER considers there would be no discernible impact to amenity on the receptor, and the consequence is insignificant.

Consequence rating is therefore insignificant.

6.4.6 Likelihood of consequence

In consideration of the relevant factors presented in this report, particularly in respect of the operations compliance with the Noise Regulations, the likelihood of causing insignificant consequences on the receptor is rare.

Likelihood rating is therefore rare.

6.5 Risk of Discharge to Water Impact Analysis

6.5.1 General Hazard Characterisation

Material may enter the marine environment through contaminated stormwater discharged from the jetty and directly from spills during ship unloading with grab and hopper infrastructure. Due

to the nature of diffuse sources, the concentrations of material entering the marine environment has not been quantified.

The fertilisers and phosphates handled are soluble in water as identified in table 8, section 6.2. These materials can add to the nutrient load of the local marine ecosystem.

6.5.2 Assessment of proponent controls

The Licensee has the following controls in place for spills of material from offshore activities and containment of contaminated stormwater:

- containment of product contaminated stormwater by drainage collection system on KBB3 and KBB4 which directs stormwater to a storage tank, prior to removal by liquid waste carrier;
- annual monitoring of water quality, sediment and mussels for contaminants;
- deflector plates to capture ship to shore spill;
- sweeper trucks are used to remove dust and spilt material from all trafficable within the prescribed premises;
- partially enclosed transfer stations;
- shedding plate under jetty portion of southern conveyor CV1 and CV2 which is regularly cleared of spills;
- fully enclosed conveyor on offshore section past transfer point T2; and
- sweeper trucks used to remove dust and spilled material from the trafficable areas.

6.5.3 Impact

Contaminated stormwater or spills of material discharged to the marine environment can cause turbidity impacting water quality and visibility. This can also cause shading and smothering of seagrass meadows.

Fertilisers and phosphate can be taken up by biota causing eutrophic changes in the benthic habitat.

6.5.4 Consequence

Taking into consideration the relevant factors discussed in this report, particularly in regards to the nature of materials and the results of annual water marine quality monitoring around KBJ, it is considered that there is minor to moderate impact to the local marine environment from the handling of fertilisers and phosphates.

Consequence rating is therefore minor.

6.5.5 Likelihood of consequence

Taking into consideration the relevant factors discussed in this report, particularly regarding infrastructure and proponent controls, it is considered that the handling of fertilisers and phosphates at KBJ having a minor to moderate impacts at a local scale could occur at times during the KBJ operations.

Likelihood rating is therefore unlikely.

6.6 Risk of Land Infiltration to Groundwater Analysis

6.6.1 General Hazard Characterisation

Material may enter the groundwater through the infiltration of contaminated stormwater. Most fertilisers and phosphates are soluble as identified in table 8, section 6.2 and can infiltrate to impact on the quality of groundwater. These materials were not identified as presenting a toxic or carcinogenic risk to public health or the environment.

6.6.2 Assessment of proponent controls

The Licensee has the following controls in place for spills of material from onshore activities.

- enclosed conveyors CV3, CV5 and CV6 onshore from T2 to the United Farmers Storage shed;
- sweeper trucks used to remove dust and spilled material from trafficable areas; and
- sealed surfaces.

6.6.3 Impact

Potential further degradation of already affected groundwater quality.

6.6.4 Consequence

Groundwater in the area is not considered potable, and the site has been classified as possibly contaminated and undergoing further investigation. As such, the quality of groundwater needs to be protected.

Taking into consideration the groundwater quality detailed above and other relevant factors discussed in this report, particularly the nature of materials, it is considered that there is a minor consequence to groundwater from potentially contaminated stormwater or wash down water.

Consequence rating is therefore minor.

6.6.5 Likelihood of consequence

Taking into consideration the relevant factors discussed in this decision report, specifically in regards to the proponent controls in place, the likelihood of causing minor consequence on the receptor is unlikely.

Likelihood rating is therefore unlikely.

6.7 Risk Rating

6.7.1 Risk Matrices

Consideration has been given to all of the above matters and the following risk criteria have been applied, to determine the risk rating set out in the table 13 below.

Table 13. Risk rating

Likelihood	Consequence				
	Insignificant	Minor	Moderate	Major	Severe
Almost Certain	Moderate	High	High	Extreme	Extreme
Likely	Moderate	Moderate	High	High	Extreme
Possible	Low	Moderate	Moderate	High	Extreme
Unlikely	Low	Moderate	Moderate	Moderate	High
Rare	Low	Low	Moderate	Moderate	High

Likelihood		Consequence		
The following criteria has been used to determine the likelihood of the risk / opportunity occurring.		The following criteria has been used to determine the consequences of a risk occurring:		
			Public Health	Ecosystem/ Environmental
Almost Certain	The event is expected to occur in most circumstances	Severe	<ul style="list-style-type: none"> Loss of life Exposure to hazard with permanent prolonged adverse health effects expected to large population Health criteria is significantly exceeded 	<ul style="list-style-type: none"> Irreversible impact to significant high value or sensitive ecosystem expected Irreversible and significant impact on a wide scale Total loss of a threatened species expected Ecosystem criteria is significantly exceeded
Likely	The event will probably occur in most circumstances	Major	<ul style="list-style-type: none"> Exposure to hazard with permanent prolonged adverse health effects expected to small population Significant impact to amenity for extended periods expected to large population Health criteria is exceeded 	<ul style="list-style-type: none"> Long-term impact to significant high value or sensitive ecosystem expected Long-term impact on a wide scale Adverse impact to a listed species expected Ecosystem criteria is exceeded
Possible	The event could occur at some time	Moderate	<ul style="list-style-type: none"> Exposure to hazard with short-term adverse health effects expected requiring treatment Impact to amenity expected for short periods to large population Health criteria is at risk of not being met 	<ul style="list-style-type: none"> Minor and short-term impact to high value or sensitive ecosystem expected Off-site impacts at a local scale Ecosystem criteria is at risk of not being met
Unlikely	The event is unlikely to occur	Minor	<ul style="list-style-type: none"> Exposure to hazard with short-term adverse health effects expected Impact to amenity expected for short periods to small population Health criteria are likely to be met 	<ul style="list-style-type: none"> Moderate to minor impact to ecosystem component (physical, chemical or biological) Minor off-site impacts at a local scale Ecosystem criteria are likely to be met
Rare	The event may only occur in exceptional	Insignificant	<ul style="list-style-type: none"> No detectable impacts to health 	<ul style="list-style-type: none"> None or insignificant impact to ecosystem component (physical,

	circumstances		<ul style="list-style-type: none"> No detectable impacts to amenity Health criteria met 	chemical or biological) expected with no effect on ecosystem function <ul style="list-style-type: none"> Ecosystem criteria met
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6.7.2 Risk Treatment

DER will treat risks in accordance with the Risk Treatment Matrix below.

Table 14. Risk Treatment Matrix

Risk Rating	Acceptability	Treatment
Extreme	Unacceptable	Risks will not be tolerated. DER will refuse proposals.
High	Acceptable subject to primary and secondary controls	Risks will be subject to multiple regulatory controls including primary and secondary controls. This will include both outcome-based and management conditions.
Moderate	Acceptable, generally subject to primary controls	Risks will be subject to regulatory controls with a preference for outcome-based conditions where practical and appropriate.
Low	Acceptable, generally not controlled	Risks are acceptable and will generally not be subject to regulatory controls.

6.7.3 Summary of Risk Assessment and Acceptability

The risk items identified in section 6 including the application of risk criteria and the acceptability with treatment are summarised in table 15 below.

Table 15. Risk rating of emissions

	Emission		Pathway and Receptor	Impact	Proponent controls	Risk Rating (with proponent controls)	Acceptability with treatment (conditions on instrument)
	Type	Source					
1.	Dust from sulfur fertilisers and other phosphates	Infrastructure and handling process	Amenity and public health.	Air, moving with direction of wind. Industrial neighbour	Infrastructure and management controls.	Minor consequence on amenity of receptor Unlikely likelihood of causing minor consequence Moderate Risk	Acceptable subject to proponent controls conditioned.
2.	Dust from phosphate rock and cement clinker	Infrastructure and handling process	Amenity and public health.	Air, moving with direction of wind. Industrial neighbour	Infrastructure and management controls.	Minor consequence on amenity of receptor Possible likelihood of causing minor consequence Moderate risk	Acceptable subject to proponent controls conditioned.
3.	Dust from granulated slag, gypsum	Infrastructure and handling process	Amenity and public health.	Air, moving with direction of wind. Industrial neighbour	Infrastructure and management controls.	Minor consequence on amenity of receptor Unlikely likelihood on health of receptor Moderate risk	Acceptable subject to proponent controls conditioned.
4.	Noise from infrastructure and operations	Infrastructure and handling process	Amenity	Air, moving with direction of wind	None specified	Insignificant consequence on receptor Rare likelihood of causing insignificant consequence Low risk	Acceptable, no regulatory controls required.

	Emission		Pathway and Receptor	Impact	Proponent controls	Risk Rating (with proponent controls)	Acceptability with treatment (conditions on instrument)
	Type	Source					
5.	Discharge to water from contaminated stormwater and material spills	Ship grab, stormwater; wash down water; jetty	Impacts on water quality and visibility	Direct from infrastructure.	Infrastructure and management controls.	Minor consequence on receptor Unlikely likelihood of causing minor consequence on receptor Moderate risk	Acceptable subject to proponent controls conditioned.
6.	Groundwater contamination from spills and stormwater	Stormwater	Groundwater quality affected and entry into the marine environment (interface).	Land infiltration to groundwater.	Infrastructure and management controls.	Minor consequence on receptor Unlikely likelihood of causing insignificant consequence on receptor Moderate risk	Acceptable subject to proponent controls conditioned.

7. Determined Regulatory Controls

7.1 Summary of Controls

		Controls	
		7.2 Infrastructure and Equipment	7.3 Cockburn Sound Monitoring
Risk Items (see section 8)	1. Dust from sulfur, fertilisers and other phosphates	●	
	2. Dust from phosphate rock and cement clinker	●	
	3. Dust from granulated slag, gypsum and soya bean meal	●	
	4. Noise from infrastructure and operations	Low risk. No controls required. Note. Noise Regulations apply.	
	5. Discharge to water from contaminated stormwater and material spills	●	●
	6. Discharge to land from contaminated stormwater and material spills infiltrating to groundwater	●	

7.2 Specified Infrastructure and Equipment Controls

The following environmental controls, infrastructure and equipment should be maintained and operated onsite for dust management:

- Vertical screw conveyor system which transfers material from ships hold either:
 - directly onto the conveyor belt system; or
 - underneath through bellows (chutes) to trucks.
- Dust extraction system at the point of discharge through bellows and on the gantry conveyor and
- Deflector plates are to be designed and maintained to deflect spills from the

grabs to deck of the jetty.

- Deflector plates are to be in place along the length of loading/unloading area when loading or unloading of vessels using the grab unloader is being undertaken.
- Bulk granular material must not spill, or cause to be spilt, into the marine environment.
- Enclosed conveyor system designed with:
 - steel clad walls and roof (excluding CV1 which has no roof); and
 - an under floor spill tray which is either sloped to direct spills and washwater to collection point via a gutter or contained to prevent spills entering the environment.
- Partially enclosed transfer station with fibreglass clad walls and roof and concrete flooring.
- Vessels and their holds, deck and equipment must not be washed into marine waters.
- Collect and contain product contaminated stormwater and wash water that collects on the deck of the wharf, so that it does not enter marine waters. Berths bunded and sealed to contain all stormwater/wastewater and prevent any material spilt entering the marine environment.
- Stormwater/wastewater directed to centrally located drain (one on either side) and sump point.
- Product contaminated stormwater/wastewater either held in holding tank or pumped into truck for disposal.

Note: Specified infrastructure requirements derived from those currently accepted.

Grounds: The infrastructure and equipment is currently used by the Licensee and considered appropriate based on the materials handled and risk to amenity, public health and marine ecosystem. The condition requires the continued use of the infrastructure and equipment and ensures regulatory oversight.

7.3 Cockburn Sound Monitoring Requirements

7.3.1 Monitoring Requirements

The monitoring of water quality, sediment and mussels for contaminants in all operational areas is required.

7.3.2 Monitoring Reports

Monitoring report should be provided annually.

Note: Monitoring of Cockburn Sound is currently being undertaken by the Licensee and has been reported to DER through the annual reporting requirements for Kwinana Bulk Jetty, but not through a condition within the existing licence.

Grounds: DER requires monitoring data to support DER's consideration of impacts from the

premises to Cockburn Sound. The monitoring data will enable DER to consider whether licence conditions continue to be appropriate.

8. Setting Conditions

The conditions in the Revised Licence have been determined in accordance with DER's *Guidance Statement on Setting Conditions*.

DER's *Guidance Statement on Licence Duration* has been applied and the Revised Licence expires in 20 years from date of issue.

Condition Ref	Grounds
Environmental Compliance Condition 1	Environmental compliance is a valid, risk-based condition to ensure appropriate linkage between the licence and the EP Act.
Notification of Material Change 2, 3 and 4	These conditions are valid, risk-based and enable flexibility in operations.
Infrastructure and Equipment 5 and 6	These conditions are valid, risk-based and contain appropriate controls (see section 7).
Cockburn Sound Monitoring and Reporting 7 and 8	This condition is valid, risk-based and is consistent with the Cockburn Sound Policy.
Emissions 9	This condition is valid, risk-based and consistent with the EP Act.
Information 10, 11, 12, 13, 14	These conditions are valid and are necessary administration and reporting requirements to ensure compliance.

DER notes that it may review the appropriateness and adequacy of controls at any time, and that following a review, DER may initiate amendments to the licence under the EP Act.

9. Licensee's Comments

The Licensee was provided with the draft decision report and condition set on 2 March 2016, and the updated version of the draft condition set on 24 March 2016. A subsequent review was requested and the updated documents provided to the Licensee on 17 May 2016.

The licence was issued on 9 June 2016. Following this an administrative error was identified by the Licensee which has resulted in an amendment of the licence.

The Licensee's and DER's response is set out at Appendix 3.

10. Conclusion

This assessment of the risks of activities on the premises has been undertaken with due consideration of a number of factors, including the documents and policies specified in this decision report (summarized in Appendix 2).

Based on this assessment, it has been determined that the Revised Licence will be granted subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

Michael Christensen
Executive Advisor

delegated Officer under section 20 of the *Environmental Protection Act 1986*

Appendix 1: Compliance History Check

The following incidents have been recorded within DER's Incident Complaints Management System (ICMS) since 2010.

No.	Date	Incident details	Incident Close Out
30802	22/11/2013	Department of Health contacted DER to advise that a member of the public was swimming in Cockburn Sound and reported strong diesel odour and stinging of the eyes following bathing. Following investigation it was found to be a pinhole leak from diesel pipeline at KBJ.	Status closed.
35105	5/11/2014	Complainant states that at KBJ, forklifts being used to lift black concrete-like powder from ships over to containers on the beach during loading of trucks. Complainant reports that the black powder is going all over the beach and into the ocean.	Complaint not substantiated Status closed.
35619	5/01/2015	Complainant states that unloading of 'black stuff' from a ship spilling onto beach.	Complaint not substantiated Status closed.

Note there has been 4 other incidents logged within ICMS since 2010 for CSBP (3 logged) and BIS (1 logged).

Appendix 2: Key Documents

	Document Title	Availability
1	Licence: L4474/1976/14 – Kwinana Bulk Jetty	der.wa.gov.au
2	Licensee Common Use Agreement	DER records (confidential)
3	DER <i>Guidance Statement on Regulatory principles</i> (July 2015)	der.wa.gov.au
4	DER <i>Guidance Statement on Setting conditions</i> (September 2015)	
5	DER <i>Guidance Statement on Licence duration</i> (November 2014)	
6	DER <i>Guidance Statement on Licensing and works approvals processes</i> (September 2015)	
7	Ministerial Statement 610	Ministerial Statements accessed at http://www.epa.wa.gov.au/
8	Ministerial Statement 852	
9	Ministerial Statement 559	
10	The <i>Environmental Protection (Kwinana) (Atmospheric Wastes) Policy Approval Order 1999 and Environmental Protection (Kwinana) (Atmospheric Wastes) Regulations</i>	Environmental Protection Policies: Kwinana Atmospheric Waste found accessed at http://www.epa.wa.gov.au/
11	State Environmental (Cockburn Sound) Policy 2015	EPA Policies and Guidelines accessed at http://www.epa.wa.gov.au/
12	Annual Environmental Report and Annual Audit Compliance Report for 1 July 2014 – 30 June 2015	DER records
13	Annual Environmental Report (AER) and Annual Audit Compliance Report (AACR) – 1 July 2013 – 30 June 2014	DER records
14	Compliance Inspection Report - 16 January 2014	DER records
15	Kwinana Bulk Jetty Environmental Improvement Plan September 2012	DER records
16	Environmental Quality Criteria Reference Document for Cockburn Sound (March 2015)	EPA Policies and Guidelines accessed at http://www.epa.wa.gov.au/
17	Manual of Standard Operating Procedures for Environmental Monitoring against the Cockburn Sound Environmental Quality Criteria (2003-2004)	EPA Policies and Guidelines accessed at http://www.epa.wa.gov.au/

Appendix 3: Summary of Applicant's Comments Draft Licence

Cockburn Sound Monitoring and Reporting		
1.	Applicants comment and suggested change to Condition 7	FPA changed ' <i>Emission</i> ' in the column 1 heading to ' <i>Parameter</i> '
	DER Response	Noted and accepted.
2.	Applicants comment and suggested change to Condition 7	FPA changed ' <i>Averaging</i> ' in the column 3 heading to ' <i>Reporting</i> '. Averaging periods listed in all rows of column 3 have been replaced with a single sampling date between Jan-March each year. A reporting date of 30 September has been added.
	DER Response	Noted and accepted. The frequency of marine monitoring will be based on FPA's current program.
3.	Applicants comment and suggested change to Condition 7	FPA changed ' <i>Frequency</i> ' in the column 4 heading to ' <i>Method</i> '
	DER Response	Noted and partially accepted. The heading has been changed to ' <i>Sample</i> ' as the column relates to sample size/number.
4.	Applicants comment and suggested change to Condition 7	FPA have clarified in the text in column 4, row 1 that the single sample from surface water and seabed is for nutrients and added " <i>Single sample for biological response and organics from surface water</i> "
	DER Response	Noted and accepted.
5.	Applicants comment and suggested change to Condition 7	FPA have deleted the sampling method details listed in column 5, row 1.
	DER Response	DER notes that the sampling method outlined in the condition was based on Fremantle Ports Marine Quality Monitoring Programme (Oceanica). Following consideration the proposed amendment has been accepted.
6.	Applicants comment and suggested change to Condition 7	FPA have removed the words ' <i>Sentinel</i> ' and ' <i>for Metals</i> ' in the bold text of the second row of column 1.
	DER Response	Noted and accepted.
7.	Applicants comment and suggested change to Condition 7	FPA have removed the requirement to sample for mussels for coliform bacteria, aerobic plate count, coliforms and <i>Escherichia coli</i> commenting that these are only tested for at Fremantle sites due to livestock trade.
	DER Response	Noted and accepted. As no livestock goes through KBT, DER agrees that

		the requirement for bacteriological sampling be removed. Note that the parameter was used as it is currently being monitored through Fremantle Ports Marine Quality Monitoring Programme (Oceanica).
8.	Applicants comment and suggested change to Condition 7	FPA have removed the word "pylons" from column 2, row 2 and added "or sentinel mussels"
	DER Response	Noted and accepted.
9.	Applicants comment and suggested change to Condition 7	FPA have removed prescriptions regarding the number and size of mussels to be sampled and added "or using sentinel mussels" to column 4, row 2
	DER Response	DER notes that these specifications were derived from Fremantle Ports Marine Quality Monitoring Programme (Oceanica). Following consideration the proposed amendment has been accepted.
10.		In column 5, row 2 FPA have removed "by SCUBA divers", added "or from sentinel mussel cage", added "NATA accredited laboratory(s)..." and changed "shucking" to "processing"
	DER Response	DER notes that these specifications were derived from Fremantle Ports Marine Quality Monitoring Programme (Oceanica). Following consideration the proposed amendment has been accepted.
11.		FPA have removed the clarification that the annual grab sample consists of a "single sample from surface of water and bottom of Sound" from column 5, row 3.
	DER Response	Noted and accepted.
12.		FPA suggested amending <i>from Annual grab sample (single sample from surface of water and bottom of Sound)</i> to Annual grab sample <i>'of sediment'</i> . With Column 5 changing from <i>'Polycarbonate corers (100mm diameter) - make up a composite sample of the top 3-5 cm of three sediment cores. Transfer to glass sample jar and store on ice until sent to relevant laboratories NATA accredited for the respective analyses.'</i> to <i>'EPA (2005) Manual of Standard Operating Procedures - For Environmental Monitoring Against Cockburn Sound Environmental Quality Criteria (2003-2004) - A Supporting Document to the State Environmental (Cockburn Sound) Policy 2005. Environmental Protection Authority, Report 21, Perth,</i>

		<i>Western Australia, January 2005.</i>
	DER Response	Noted and partially accepted. The methods used must be in accordance with Section 6.4 of the EPA Manual – this section contains procedures for sediment collection for testing of toxicants (including metals/metalloids) in sediment.

Definition and Interpretation		
13.	Applicants comment and suggested change to BTEX	FPA suggests removing BTEX and outline it in the Monitoring table of Condition 8 what BTEX is (i.e. benzene, toluene, ethylbenzene and xylenes).
	DER Response	Noted and accepted.
14.	Applicants comment and suggested change to NMI	FPA suggests removing NMI as deleted by FPA in the Monitoring table of Condition 8 to only to send sampling of mussels to NATA accredited laboratory.
	DER Response	Noted and accepted.

Schedule 2: General Description		
15.	Applicants comment and suggested change to Bulk Materials loaded and unloaded	FPA have removed Ammonium Nitrate from a list of commodities handled at KBJ, commenting that it is not a bulk cargo but packed into 'bulka bags'. FPA have also deleted the exported volume.
	DER Response	Noted and accepted. DER does not consider that 'bulka bagged' product meets the description of Category 58 prescribed premises (Schedule 1 of the <i>Environmental Protection Regulations 1987</i>) as it is a packaged and not handled through an 'open materials handling system'. The decision report already discusses that there are no bulk granular exports from KBJ.
16.	Applicants comment and suggested change to Bulk Materials loaded and unloaded	FPA have removed Alumina and Coal from the list of commodities handled at KBJ, commenting that these are spot cargoes and not routinely handled at KBJ
	DER Response	DER notes FPA request to remove Alumina and Coal from the list of commodities. Subsequently DER has removed all reference to this material in the licence and decision document. Should FPA wish to add these materials in any future licence it may require a material change notification and possible reassessment by the DER through a licence amendment.
17.	Applicants comment and suggested change to Bulk Materials loaded and unloaded	FPA have amended the volumes of other materials handled at KBJ.
	DER Response	Noted and accepted.

Schedule 3: Infrastructure and Equipment		
18.	Applicants comment and suggested change to Dust Management	FPA have corrected the spelling of Siwertell Ship Unloader
	DER Response	Noted and accepted.
19.	Applicants comment and suggested change Dust Management	FPA have amended the requirement to use a dust extraction system so that it only applies at the gantry conveyor and is only used for suitable dusty products. FPA have commented that the dust extraction system can only be used for fertiliser product and not sulfur due to the risk of explosion. Water sprays are used for sulfur.
	DER Response	Noted and partially accepted. DER considers that only requiring dust extraction system to be 'available' does not treat the risk. Amended to: <i>'Dust extraction system at the gantry conveyor must be on, operating and not full or blocked when loading or unloading dusty products (excl. sulfur). For the loading/unloading of sulfur, water sprays must be used to minimise dust generation.'</i>
20.	Applicants comment and suggested change Spill Management	FPA have deleted the word "all" in row 2 and commented that it is impractical to for deflector plates to deflect all spills due to a gap between the ship and deflector plates which cannot sit up against the ship.
	DER Response	Noted and accepted.
21.	Applicants comment and suggested change Spill Management	FPA have deleted the word "unloader" and pluralised the word "grab" in row 2.
	DER Response	Noted and accepted.
22.	Applicants comment and suggested change Spill Management	FPA have removed the words "fully enclosed" in row 4 and commented that there are some gaps in the transfer stations. FPA have also changed the wall and roof material from steel to fibreglass.
	DER Response	Noted and partially accepted. Amended to ' <i>Enclosed transfer stations</i> '.
23.	Applicants comment and suggested change to Spill Management	FPA have removed the word 'main' and replaced with 'Jetty Neck' in row 5 to describe the section of the jetty connecting the berths to the shore.
	DER Response	Noted and accepted.
24.	Applicants comment and suggested change Washwater and stormwater management	FPA have added the words "product contaminated" to row 6 to reflect that only contaminated stormwater/washwater needs to be collected or contained.
	DER Response	Noted and accepted.
25.	Applicants comment and suggested change to	FPA have deleted the requirement to direct stormwater/wastewater to a centrally located drain

	Washwater and stormwater management	(one on either side) and sump point. FPA have commented that stormwater drain inlets are located across both berths.
	DER Response	Noted and partially accepted. The text has been clarified to remove prescription on drain locations.

Schedule 4: Monitoring		
26.	Applicants comment and suggested change to Monitoring Reports	FPA have changed “on and one [1] day prior” to “24 hours prior” in relation to reporting of the activities being undertaken on KBJ around the time of sampling.
	DER Response	Noted and accepted.
27.	Applicants comment and suggested change to Cockburn Sound reporting frequency	FPA have removed the requirement for quarterly reporting of water quality data. FPA have amended the requirement to include annual reporting of sediment, water quality and mussels by the last day of September.
	DER Response	Noted and accepted. The frequency of marine monitoring will be based on FPA’s current program.
28.	Applicants comment and suggested change Map	FPA have added the word “Location” to the titled of the Marine Monitoring Map.
	DER Response	Noted and accepted.
29.	Applicants comment and suggested change Map	FPA have provided an updated marine monitoring location map applicable to both KBT and KBJ (though no changes to KBJ locations).
	DER Response	Noted and accepted.

Following a request by Fremantle Port Authority, an updated Licence and decision report was provided for their review on 17 May 2016. The following table details comments which were received on 3 June 2016 and DER’s response.

Second round comments		
30.	Applicants comment and suggested change to Condition 6	Minor formatting change proposed.
	DER Response	Noted and accepted.
31.	Applicants comment and suggested change to Condition 8, Table 2	Amended description of General Emissions
	DER Response	Noted and accepted.
32.	Applicants comment and suggested change to Schedule 2, Table 3	Amendments proposed to description of infrastructure. As follows: <ul style="list-style-type: none"> • Hoppers
	DER Response	Noted and accepted.
33.	Applicants comment and	Proposed amendment to clarify responsibility for CSBP

	suggested change to Schedule 2, Operating Arrangements	conveyor system.
	DER Response	Noted. Reference to Schedule 1: Maps made given that two exclusions to materials handling systems are identified on premises map.
34.	Applicants comment and suggested change to Schedule 2, Table 4	Proposed additional paragraph to enable an increase in the volume of individual commodities imported where there is a corresponding decrease in other commodities provided Licensee complies with Condition 8.
	DER Response	Noted. DER has documented the volumes within Table 4, based on the volumes of material that have been handled at the premises. This is reflected in the decision report and the risk assessment which considered the frequency and volumes of the material handling in determining the risk. To change the combined volume of material would not reflect the risk assessment that was undertaken and the current activity at the premises.
35.	Applicants comment and suggested change to Schedule 2, Examples of material change	Proposed amended the second bullet point to clarify that an increase exceeding 10% of the volume of individual commodities is a material change.
	DER Response	Noted. DER considers that the existing dot point is sufficiently clear and relates to exceedance (ie above) above 10% of the volumes specified, both individual and combined.
36.	Applicants comment and suggested change to Schedule 2, Non-material change	Proposed amended to the words ' <i>decrease the risk of emissions</i> ' by substituting with ' <i>do not increase the risk of emissions</i> '. Proposed additional dot point to clarify where increased volumes don't constitute a material change
	DER Response	Noted. DER considers that the intent is in relation to improvements made to reduce the risk and not maintain or increase the risk. Refer above regarding volumes.
37.	Applicants comment and suggested change to Schedule 3, Table 5	Corrections tracked with comments, as follows: <ul style="list-style-type: none"> The Siwertell unloads material only
	DER Response	Noted. Amendments made reflecting the comments
38.	Applicants comment and suggested change to Schedule 4	Corrected a typographical error in the fourth bullet point
	DER Response	Noted and accepted.

The Licence was issued on 9 June 2016. Following this the Licensee raised a number of administrative errors and one comment. This and DER's consideration of the matters raised is detailed in the following table.

Comments on issued Licence		
1.	Licensee comment	Condition 5, should refer to Table 5 and not Table 6.
	DER Response	Noted and accepted. Amendment made.

Attachment 1: Licence L4474/1976/14 – Kwinana Bulk Jetty