



# Licence

## *Environmental Protection Act 1986, Part V*

**Licensee:** BHP Billiton Iron Ore Pty. Ltd.

**Licence:** L8898/2015/1

**Registered office:** 125 St Georges Terrace  
Brookfield Place  
PERTH WA 6000

**ACN:** 008 700 981

**Premises address:** Quarry 2 Sleeper Storage Area  
BHP Billiton Iron Ore Newman Mainline  
Crown Lease I123599  
Via Pippingarra Road  
Indee  
PORT HEDLAND WA 6721  
Being Lot 141 on Deposited Plan 48923 as depicted in Schedule 1.

**Issue date:** Thursday, 17 September 2015

**Commencement date:** Monday, 21 September 2015

**Expiry date:** Sunday, 20 September 2020

**Prescribed premises category**  
Schedule 1 of the *Environmental Protection Regulations 1987*

| Category number | Category description                                                                             | Category production or design capacity | Approved premises production or design capacity |
|-----------------|--------------------------------------------------------------------------------------------------|----------------------------------------|-------------------------------------------------|
| 62              | Solid waste depot – premises on which waste is stored or sorted pending final disposal or re-use | 500 tonnes or more per year            | 10,000 tonnes per annual period                 |

### Conditions

This Licence is subject to the conditions set out in the attached pages.

.....  
Steve Checker  
Manager – Licencing (Waste Industries)  
Officer delegated under section 20  
of the *Environmental Protection Act 1986*



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## Introduction

This Introduction is not part of the Licence conditions.

### DER's industry licensing role

The Department of Environment Regulation (DER) is a government department for the state of Western Australia in the portfolio of the Minister for Environment. DER's purpose is to advise on and implement strategies for a healthy environment for the benefit of all current and future Western Australians.

DER has responsibilities under Part V of the *Environmental Protection Act 1986* (the Act) for the licensing of prescribed premises. Through this process DER regulates to prevent, control and abate pollution and environmental harm to conserve and protect the environment. DER also monitors and audits compliance with works approvals and licence conditions, takes enforcement action as appropriate and develops and implements licensing and industry regulation policy.

### Licence requirements

This Licence is issued under Part V of the Act. Conditions contained within the licence relate to the prevention, reduction or control of emissions and discharges to the environment and to the monitoring and reporting of them.

Where other statutory instruments impose obligations on the Premises/Licensee the intention is not to replicate them in the Licence conditions. You should therefore ensure that you are aware of all your statutory obligations under the Act and any other statutory instrument. Legislation can be accessed through the State Law Publisher website using the following link: <http://www.slp.wa.gov.au/legislation/statutes.nsf/default.html>.

For your Premises relevant statutory instruments include but are not limited to obligations under the:

- *Environmental Protection (Unauthorised Discharges) Regulations 2004* – these Regulations make it an offence to discharge certain materials such as contaminated stormwater into the environment other than in the circumstances set out in the Regulations.
- *Environmental Protection (Controlled Waste) Regulations 2004* - these Regulations place obligations on you if you produce, accept, transport or dispose of controlled waste.
- *Environmental Protection (Noise) Regulations 1997* – these Regulations require noise emissions from the Premises to comply with the assigned noise levels set out in the Regulations.

You must comply with your Licence. Non-compliance with your Licence is an offence and strict penalties exist for those who do not comply.

Licence holders are also reminded of the requirements of section 53 of the Act which places restrictions on making certain changes to prescribed premises unless the changes are in accordance with a works approval, licence, closure notice or environmental protection notice.



### Licence fees

If you have a licence that is issued for more than one year, you are required to pay an annual licence fee prior to the anniversary date of issue of your licence. Non-payment of annual licence fees will result in your licence ceasing to have effect meaning that it will no longer be valid and you will need to apply for a new licence for your Premises.

### Ministerial conditions

If your Premises has been assessed under Part IV of the Act you may have had conditions imposed by the Minister for Environment. You are required to comply with any conditions imposed by the Minister.

### Premises description and Licence summary

BHP Billiton Iron Ore Pty Ltd have constructed a temporary railway sleeper storage area to relocate numerous old timber railway sleepers as a result of various operations to transport product around the Pilbara region via rail networks. Through maintenance and upgrades on the various rail networks, stockpiles of old treated timber railway sleepers are now estimated to be approximately 10,000 tonnes.

The 'Quarry 2 sleeper storage area' is located on Lot 141 on Deposited Plan 48923, Crown Lease I123599, Indee, Port Hedland, adjacent to Quarry 2, located at the 73 chainage marker on the BHP Billiton Iron Ore Newman Mainline. The facility is located approximately 73 kilometers from Port Hedland.

The sleeper storage area is for the temporary storage of up to 60,000 old treated railway sleepers until a preferred final treatment/ disposal solution is determined. The construction of the premises was undertaken through works approval W5851/2015/1. The compliance report was received by DER on 21 August 2015.

The Premises is located on five hectares of an area that was previously utilised as a quarry and stockpile area for the storage of railway ballast and other materials and equipment used in the operation and maintenance of the railway line (in accordance with the *Iron Ore (Mount Newman) Agreement Act, 1964*). The storage area has a 150mm compacted hardstand on which the old timber sleepers are to be placed.

The storage and stacking plan of the timber railway sleepers, consists of:

- each block of sleepers located within the storage area must be at a distance of 15m apart to allow for access between blocks;
- each sleeper stack will consist of approximately 150 bundles (approximate dimensions of 13m x 10m x 3m);
- each sleeper bundle will consist of 20 to 25 sleepers; and
- a minimum 3m firebreak will be maintained around the outer boundary of the sleeper laydown area with a 2m internal firebreak.

Groundwater flow is west-south west across the facility consistent with the surface water drainage of the site as well. The premises is not located within a proclaimed drinking water reserve and depth to groundwater at the site is unknown. A desktop assessment of a groundwater bore 10m south west of the laydown area (Wayeranna Well) identified groundwater to be approximately 3.5m below ground. The well is no longer in use however it was originally used for livestock watering. The soils of the area are defined by the proponent as 'hard setting soils with dispersible clay subsoils.'

The nearest surface water body is 5.7km north east of the storage area (Turner River catchment area).

The closest residential areas to the storage area is Indie and Wallareenya Stations which are located approximately 18km north west and 24km north, north east of the premises respectively. The Great Northern Highway is located approximately 9km west of the premises.

The main potential risks from the premises include fire (air emissions) and potential contamination of land and groundwater.

This Licence is for the operation of a new facility in accordance with the *Environmental Protection Regulations 1987*, for a Category 62 – Solid Waste Depot, for the temporary storage of old/ used timber railway sleepers from various 'BHPBIO Port Hedland Rail Operations'. The Licence has been issued for a five year period for temporary relocation of old timber sleepers from the BHP rail operations, for final disposal to an appropriate licenced landfill or until a preferred final treatment/disposal solution is determined.



The licences and works approvals issued for the Premises, since 2/07/2015, are:

| Instrument log |            |                                                                    |
|----------------|------------|--------------------------------------------------------------------|
| Instrument     | Issued     | Description                                                        |
| W5851/2015/1   | 2/07/2015  | Works approval for construction of temporary sleeper storage area. |
| L8898/2015/1   | 17/09/2015 | New licence application                                            |

### Severance

It is the intent of these Licence conditions that they shall operate so that, if a condition or a part of a condition is beyond the power of this Licence to impose, or is otherwise *ultra vires* or invalid, that condition or part of a condition shall be severed and the remainder of these conditions shall nevertheless be valid to the extent that they are within the power of this Licence to impose and are not otherwise *ultra vires* or invalid.

### END OF INTRODUCTION



# Licence conditions

## 1 General

### 1.1 Interpretation

1.1.1 In the Licence, definitions from the *Environmental Protection Act 1986* apply unless the contrary intention appears.

1.1.2 For the purposes of this Licence, unless the contrary intention appears:

**'Acceptance Criteria'** has the meaning defined in Landfill Definitions;

**'Act'** means the *Environmental Protection Act 1986*;

**'annual period'** means the inclusive period from 1 July until 30 June in the following year;

**'averaging period'** means the time over which a limit or target is measured or a monitoring result is obtained;

**'BHPBIO Port Hedland Operations, Supporting documentation for Licence Application'** means the submission received by DER via email on 5 June 2015;

**'CEO'** means Chief Executive Officer of the Department of Environment Regulation;

**'CEO'** for the purpose of correspondence means;

Chief Executive Officer  
Department Administering the Environmental Protection Act 1986  
Locked Bag 33  
CLOISTERS SQUARE WA 6850  
Email: info@der.wa.gov.au;

**'controlled waste'** has the definition in *Environmental Protection (Controlled Waste) Regulations 2004*;

**'fugitive emissions'** means all emissions not arising from point sources identified in Sections 2.2, 2.3, 2.4 and 2.5;

**'Landfill Definitions'** means the document titled "Landfill Waste Classification and Waste Definitions 1996" published by the Chief Executive Officer of the Department of Environment as amended from time to time;

**'leachate'** means liquid released by or water that has percolated through waste and which contains some of its constituents;

**'Licence'** means this Licence numbered L8898/2015/1 and issued under the Act;

**'Licensee'** means the person or organisation named as Licensee on page 1 of the Licence;

**'NATA'** means the National Association of Testing Authorities, Australia;

**'NATA accredited'** means in relation to the analysis of a sample that the laboratory is NATA accredited for the specified analysis at the time of the analysis;

**'Premises'** means the area defined in the Premises Map in Schedule 1 and listed as the Premises address on page 1 of the Licence;

**'Schedule 1'** means Schedule 1 of this Licence unless otherwise stated;

**'Schedule 2'** means Schedule 2 of this Licence unless otherwise stated; and



**‘spot sample’** means a discrete sample representative at the time and place at which the sample is taken.

- 1.1.3 Any reference to an Australian or other standard in the Licence means the relevant parts of the standard in force from time to time during the term of this Licence.
- 1.1.4 Any reference to a guideline or code of practice in the Licence means the current version of the guideline or code of practice in force from time to time, and shall include any amendments or replacements to that guideline or code of practice made during the term of this Licence.
- 1.1.5 Nothing in the Licence shall be taken to authorise any emission that is not mentioned in the Licence, where the emission amounts to:
- (a) pollution;
  - (b) unreasonable emission;
  - (c) discharge of waste in circumstances likely to cause pollution; or
  - (d) being contrary to any written law.

## 1.2 General conditions

- 1.2.1 The Licensee shall operate and maintain all pollution control and monitoring equipment to the manufacturer's specification or any relevant and effective internal management system.
- 1.2.2 The Licensee, except where storage is prescribed in section 1.3, shall ensure that environmentally hazardous materials are stored in accordance with the code of practice for the storage and handling of dangerous goods.
- 1.2.3 The Licensee shall immediately recover, or remove and dispose of spills of environmentally hazardous materials outside an engineered containment system.
- 1.2.4 The Licensee shall:
- (a) implement all practical measures to prevent stormwater run-off becoming contaminated by the activities on the Premises; and
  - (b) treat contaminated or potentially contaminated stormwater as necessary prior to being discharged from the Premises.<sup>1</sup>
- Note1: The *Environmental Protection (Unauthorised Discharges) Regulations 2004* make it an offence to discharge certain materials into the environment.
- 1.2.5 The Licensee shall maintain permanent markers along the boundary of the sleeper storage laydown area so it can be identified on the ground, as shown in 'Schedule 1: Maps – Premises Map 'L1'.

## 1.3 Premises operation

- 1.3.1 The Licensee shall only accept waste on to the Premises if:
- (a) it is of a type listed in Table 1.3.1; and
  - (b) the quantity accepted is below any quantity limit listed in Table 1.3.1; and
  - (c) it meets any specification listed in Table 1.3.1.

| Table 1.3.1: Waste acceptance |                                 |                                                                                                                                                                                                                                                                                                                                                                            |
|-------------------------------|---------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Waste type                    | Quantity limit                  | Specification                                                                                                                                                                                                                                                                                                                                                              |
| Contaminated Solid Waste      | 10,000 tonnes per annual period | <ul style="list-style-type: none"><li>Acceptance of used/ old timber railway sleepers that have been removed from BHP Billiton Iron Ore associated 'Newman to Port Hedland' rail network, for temporary storage prior to final disposal at a licenced landfill or other suitable disposal option; and</li><li>Received from a licenced controlled waste carrier.</li></ul> |

- 1.3.2 The Licensee shall ensure that where waste does not meet the waste acceptance criteria set out in condition 1.3.1 it is removed from the Premises by the delivery vehicle or, where that is not possible,



stored in a quarantined storage area or container and removed to an appropriately authorised facility as soon as practicable.

- 1.3.3 The Licensee shall ensure that wastes accepted onto the Premises are only subjected to the process(es) set out in Table 1.3.2 and in accordance with any process limits described in that Table.

| Table 1.3.2: Waste processing |                                                 |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |
|-------------------------------|-------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Waste type                    | Process                                         | Process limits                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           |
| Contaminated Solid Waste      | Receipt, handling and storage prior to disposal | <ul style="list-style-type: none"><li>• Stored within the 'Quarry 2 Sleeper Storage Area' in an area where no pooling of any water will occur;</li><li>• Stored on a minimum 150mm compacted fill hardstand;</li><li>• Storage area and firebreak around boundary of storage area to be kept clear of vegetation;</li><li>• Storage:<ul style="list-style-type: none"><li>(a) each block of sleepers located within the storage area must be at a distance of 15m apart to allow for access between blocks;</li><li>(b) each sleeper stack will consist of approximately 150 bundles (approximate dimensions of 13m x 10m x 3m);</li><li>(c) a sleeper bundle will consist of 20 to 25 sleepers; and</li><li>(d) a minimum 3m firebreak will be maintained around the outer boundary of the sleeper laydown area with 2m internal firebreak; and</li></ul></li><li>• All treated timber sleepers to be stored on a temporary basis until final disposal to an appropriate licenced landfill or other suitable disposal option.</li></ul> |

- 1.3.4 The Licensee shall install and maintain a sign at the entrance to the Premises which clearly displays the following information;
- (a) ownership of operation;
  - (b) contact telephone number;
  - (c) warning indicating penalties for people lighting fires; and
  - (d) type of material accepted for storage.

- 1.3.5 The Licensee shall ensure that no waste is burnt on the premises.

## 2 Monitoring

### 2.1 General monitoring

- 2.1.1 The licensee shall ensure that:
- (a) all water samples are collected and preserved in accordance with AS/NZS 5667.1;
  - (b) all groundwater sampling is conducted in accordance with AS/NZS 5667.11;
  - (c) all soil sampling is conducted in accordance with AS 4482.1 and AS 4482.2 as relevant; and
  - (d) all laboratory samples are submitted to and tested by a laboratory with current NATA accreditation for the parameters being measured.
- 2.1.2 The Licensee shall ensure that :
- (a) monthly monitoring is undertaken at least 15 days apart;
  - (b) quarterly monitoring is undertaken at least 45 days apart; and
  - (c) annual monitoring is undertaken at least 9 months apart.
- 2.1.3 The Licensee shall ensure that all monitoring equipment used on the Premises to comply with the conditions of this Licence is calibrated in accordance with the manufacturer's specifications, and the requirements of the Licence.





- 2.1.4 The Licensee shall, where the requirements for calibration cannot be practicably met, or a discrepancy exists in the interpretation of the requirements, bring these issues to the attention of the CEO accompanied with a report comprising details of any modifications to the methods.
- 2.1.5 The Licensee shall ensure that all sampling is undertaken in accordance with the monitoring schedule defined within the "BHPBIO Port Hedland Operations, Supporting documentation for Licence Application, May 2015, Table 3: Sleeper Laydown Area Monitoring Schedule" as submitted, unless otherwise defined within the Licence.

## 2.2 Monitoring of inputs and outputs

- 2.2.1 The Licensee shall undertake the monitoring in Table 2.2.1 according to the specifications in that table.

| Table 2.2.1: Monitoring of inputs and outputs |                                                    |                     |                  |                                                 |
|-----------------------------------------------|----------------------------------------------------|---------------------|------------------|-------------------------------------------------|
| Input/Output                                  | Parameter                                          | Units               | Averaging period | Frequency                                       |
| Waste Inputs                                  | Contaminated Solid Waste                           | Individual sleepers | N/A              | Each load arriving at the Premises              |
| Waste Outputs                                 | Waste type as defined in the Landfill Definitions. |                     |                  | Each load leaving or rejected from the Premises |

## 2.3 Process monitoring

- 2.3.1 The Licensee shall undertake the monitoring in Table 2.3.1 according to the specifications in that table.

| Table 2.3.1: Process monitoring   |                                                |                                      |       |           |                                       |
|-----------------------------------|------------------------------------------------|--------------------------------------|-------|-----------|---------------------------------------|
| Monitoring point reference        | Process description                            | Parameter                            | Units | Frequency | Method                                |
| L1 – Timber sleeper storage area. | Inspection of the timber sleeper storage area. | Fire and/ or damage to storage area. | -     | Weekly    | Visual                                |
|                                   |                                                |                                      |       | Monthly   | Written inspection records to be kept |

## 2.4 Ambient environmental quality monitoring

- 2.4.1 The Licensee shall undertake the monitoring in Tables 2.4.1 and 2.4.2 according to the specifications in those tables.

| Table 2.4.1: Monitoring of ambient groundwater quality |                                               |        |                  |           |
|--------------------------------------------------------|-----------------------------------------------|--------|------------------|-----------|
| Monitoring point reference and location                | Parameter <sup>2</sup>                        | Units  | Averaging period | Frequency |
| MW1 (up gradient bore 1);                              | Standing water level                          | m(AHD) | Spot sample      | Quarterly |
|                                                        | pH <sup>1</sup>                               | pH     |                  |           |
|                                                        | Electrical conductivity                       | µS/cm  |                  |           |
| MW2 (down gradient bore 1);                            | Total Recoverable Hydrocarbons (TRH)          | mg/L   |                  |           |
|                                                        | Total Polycyclic Aromatic Hydrocarbons (PAHs) |        |                  |           |
| MW3 (up gradient bore 2);                              | Arsenic                                       |        |                  |           |
|                                                        | Cyanide                                       |        |                  |           |
| Wayeranna Well.                                        | Cadmium                                       |        |                  |           |
|                                                        | Chromium                                      |        |                  |           |





|  |                    |  |  |  |
|--|--------------------|--|--|--|
|  | Chloride           |  |  |  |
|  | Copper             |  |  |  |
|  | Iron(III) minerals |  |  |  |
|  | Manganese          |  |  |  |
|  | Naphthalene        |  |  |  |
|  | Nickel             |  |  |  |
|  | Nitrate ions       |  |  |  |
|  | Pentachlorophenol  |  |  |  |
|  | Sulphate ions      |  |  |  |
|  | Zinc               |  |  |  |
|  | Benzene            |  |  |  |
|  | Toluene            |  |  |  |
|  | Ethylbenzene       |  |  |  |
|  | Xylenes            |  |  |  |

Note 1: In-situ non-NATA accredited sampling permitted.

Note 2: Defined against the 'Australian and New Zealand Guidelines for Fresh and Marine water quality, 2000', Table 5.2.3.

**Table 2.4.2: Monitoring of ambient soil quality**

| Monitoring point reference and location                                                                                   | Parameter                            | Units       | Averaging period | Frequency |
|---------------------------------------------------------------------------------------------------------------------------|--------------------------------------|-------------|------------------|-----------|
| L2 – Soil sampling (leachates) of the timber sleeper outer drip zone, down gradient of each timber storage laydown block. | pH <sup>1</sup>                      | pH          | Spot sample      | Annually  |
|                                                                                                                           | Total Recoverable Hydrocarbons (TRH) | mg/kg       |                  |           |
|                                                                                                                           | Phenol                               |             |                  |           |
|                                                                                                                           | Pentachlorophenol                    |             |                  |           |
|                                                                                                                           | Aluminium                            | % by weight |                  |           |
|                                                                                                                           | Arsenic                              | mg/kg       |                  |           |
|                                                                                                                           | Antimony                             |             |                  |           |
|                                                                                                                           | Bromate                              | mg/kg       |                  |           |
|                                                                                                                           | Boron                                | % by weight |                  |           |
|                                                                                                                           | Cadmium                              | mg/kg       |                  |           |
|                                                                                                                           | Chromium III & VI                    |             |                  |           |
|                                                                                                                           | Chloride                             |             |                  |           |
|                                                                                                                           | Copper                               | % by weight |                  |           |
|                                                                                                                           | Lead                                 | mg/kg       |                  |           |
|                                                                                                                           | Molybdenum                           | mg/kg       |                  |           |
|                                                                                                                           | Nickel                               |             |                  |           |
|                                                                                                                           | Selenium                             |             |                  |           |
|                                                                                                                           | Vanadium                             | % by weight |                  |           |
|                                                                                                                           | Zinc                                 | % by weight |                  |           |
|                                                                                                                           | Benzene                              | mg/kg       |                  |           |
|                                                                                                                           | Toluene                              | mg/kg       |                  |           |
|                                                                                                                           | Ethylbenzene                         | mg/kg       |                  |           |
|                                                                                                                           | Xylenes                              | mg/kg       |                  |           |

Note 1: In-situ non-NATA accredited sampling permitted.



## 3 Information

### 3.1 Records

3.1.1 All information and records required by the Licence shall:

- (a) be legible;
- (b) if amended, be amended in such a way that the original and subsequent amendments remain legible or are capable of retrieval;
- (c) except for records listed in 3.1.1(d) be retained for at least 6 years from the date the records were made or until the expiry of the Licence or any subsequent licence; and
- (d) for those following records, be retained until the expiry of the Licence and any subsequent licence:
  - (i) off-site environmental effects; or
  - (ii) matters which affect the condition of the land or waters.

3.1.2 The Licensee shall ensure that:

- (a) any person left in charge of the Premises is aware of the conditions of the Licence and has access at all times to the Licence or copies thereof; and
- (b) any person who performs tasks on the Premises is informed of all of the conditions of the Licence that relate to the tasks which that person is performing.

3.1.3 The Licensee shall complete an Annual Audit Compliance Report indicating the extent to which the Licensee has complied with the conditions of the Licence, and any previous licence issued under Part V of the Act for the Premises for the previous annual period.

3.1.4 The Licensee shall implement a complaints management system that as a minimum records the number and details of complaints received concerning the environmental impact of the activities undertaken at the Premises and any action taken in response to the complaint.

### 3.2 Reporting

3.2.1 The Licensee shall submit to the CEO an Annual Environmental Report within 92 calendar days after the end of the annual period. The report shall contain the information listed in Table 3.2.1 in the format or form specified in that table.

| Table 3.2.1: Annual Environmental Report |                                                                                                                                                                            |                                       |
|------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| Condition or table (if relevant)         | Parameter                                                                                                                                                                  | Format or form <sup>1</sup>           |
| -                                        | Summary of any failure or malfunction of any pollution control equipment and any environmental incidents that have occurred during the annual period and any action taken. | None specified                        |
| Table 1.3.2                              | Compliance with process limits                                                                                                                                             |                                       |
| 2.1.5                                    | Details of compliance with monitoring methodology                                                                                                                          |                                       |
| Table 2.2.1                              | Summary of inputs and outputs                                                                                                                                              |                                       |
| Table 2.3.1                              | Summary of process monitoring                                                                                                                                              |                                       |
| Table 2.4.1                              | Summary of ambient groundwater monitoring                                                                                                                                  |                                       |
| Table 2.4.2                              | Summary of ambient soil quality monitoring                                                                                                                                 | Annual Audit Compliance Report (AACR) |
| 3.1.3                                    | Compliance                                                                                                                                                                 |                                       |
| 3.1.4                                    | Complaints summary                                                                                                                                                         | None specified                        |

Note 1: Forms are in Schedule 2



### 3.3 Notification

3.3.1 The Licensee shall ensure that the parameters listed in Table 3.3.1 are notified to the CEO in accordance with the notification requirements of the table.

| Table 3.3.1: Notification requirements |                                              |                                                                                                                           |                             |
|----------------------------------------|----------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| Condition or table (if relevant)       | Parameter                                    | Notification requirement <sup>1</sup>                                                                                     | Format or form <sup>2</sup> |
| 2.1.1                                  | Breach of any limit specified in the Licence | Part A: As soon as practicable but no later than 5pm of the next usual working day.<br><br>Part B: As soon as practicable | N1                          |
| 2.1.3 and 2.1.4                        | Calibration report                           | As soon as practicable.                                                                                                   | None specified              |

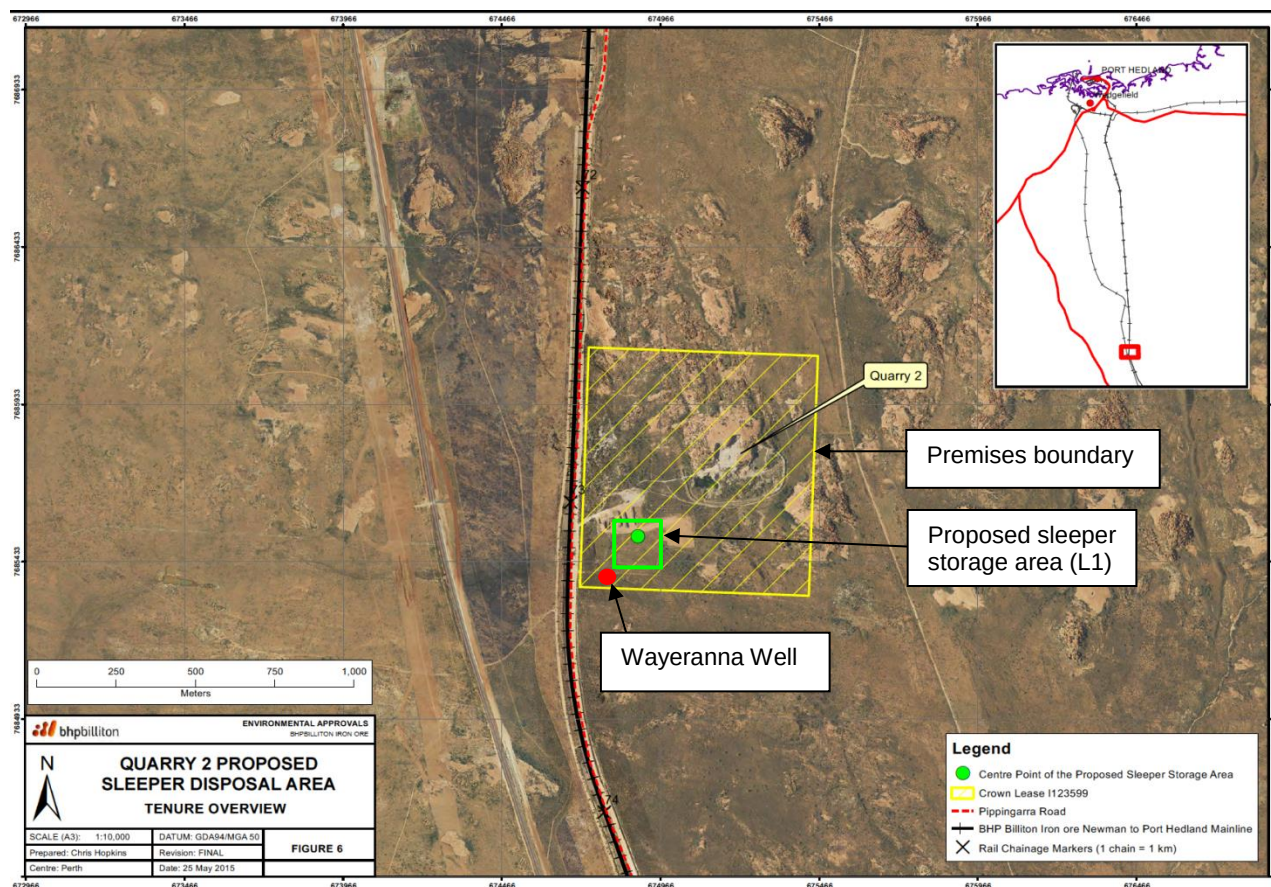
Note 1: Notification requirements in the Licence shall not negate the requirement to comply with s72 of the Act

Note 2: Forms are in Schedule 2

## Schedule 1: Maps

### Premises map

The Premises is shown in the maps below. The yellow line depicts the Premises boundary.



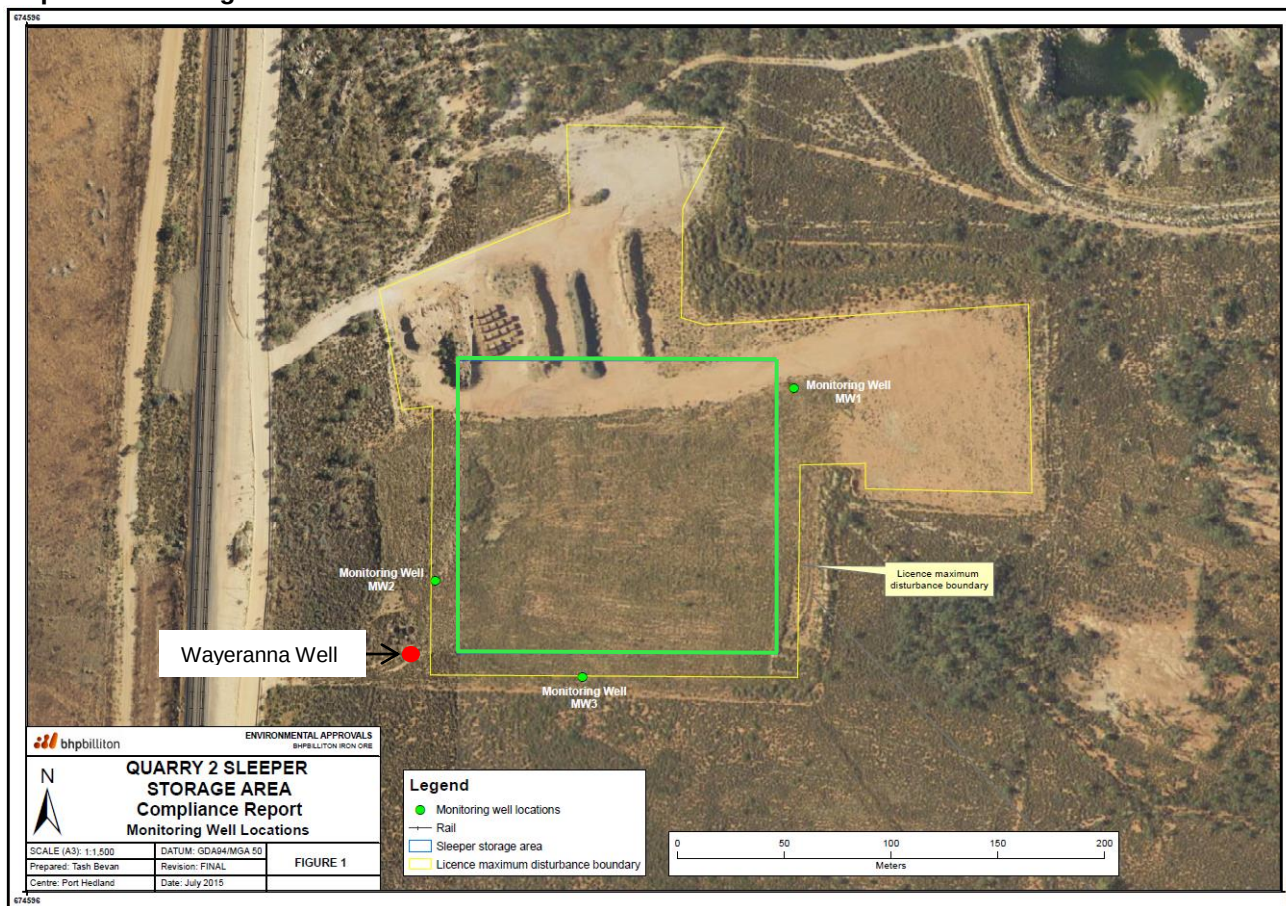
### Map of Sleeper storage area design







## Map of monitoring locations





## Schedule 2: Reporting & notification forms

These forms are provided for the proponent to report monitoring and other data required by the Licence. They can be requested in an electronic format.

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### ANNUAL AUDIT COMPLIANCE REPORT PROFORMA

#### SECTION A LICENCE DETAILS

|                                     |                      |
|-------------------------------------|----------------------|
| Licence Number:                     | Licence File Number: |
| Company Name:<br>Trading as:        | ABN:                 |
| Reporting period:<br>_____ to _____ |                      |

#### STATEMENT OF COMPLIANCE WITH LICENCE CONDITIONS

1. Were all conditions of the Licence complied with within the reporting period? (please tick the appropriate box)

Yes ☐ Please proceed to Section C

No ☐ Please proceed to Section B

Each page must be initialled by the person(s) who signs Section C of this Annual Audit Compliance Report (AACR).

Initial:



## SECTION B

### DETAILS OF NON-COMPLIANCE WITH LICENCE CONDITION.

Please use a separate page for each licence condition that was not complied with.

|                                                                                                                                                                      |                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| a) Licence condition not complied with:                                                                                                                              |                             |
|                                                                                                                                                                      |                             |
| b) Date(s) when the non-compliance occurred, if applicable:                                                                                                          |                             |
|                                                                                                                                                                      |                             |
| c) Was this non-compliance reported to DER?:                                                                                                                         |                             |
| <input type="checkbox"/> Yes<br><input type="checkbox"/> Reported to DER verbally<br>Date _____<br><input type="checkbox"/> Reported to DER in writing<br>Date _____ | <input type="checkbox"/> No |
| d) Has DER taken, or finalised any action in relation to the non-compliance?:                                                                                        |                             |
|                                                                                                                                                                      |                             |
| e) Summary of particulars of the non-compliance, and what was the environmental impact:                                                                              |                             |
|                                                                                                                                                                      |                             |
| f) If relevant, the precise location where the non-compliance occurred (attach map or diagram):                                                                      |                             |
|                                                                                                                                                                      |                             |
| g) Cause of non-compliance:                                                                                                                                          |                             |
|                                                                                                                                                                      |                             |
| h) Action taken, or that will be taken to mitigate any adverse effects of the non-compliance:                                                                        |                             |
|                                                                                                                                                                      |                             |
| i) Action taken or that will be taken to prevent recurrence of the non-compliance:                                                                                   |                             |
|                                                                                                                                                                      |                             |

Each page must be initialled by the person(s) who signs Section C of this AACR

Initial:





## SECTION C

### SIGNATURE AND CERTIFICATION

This Annual Audit Compliance Report (AACR) may only be signed by a person(s) with legal authority to sign it. The ways in which the AACR must be signed and certified, and the people who may sign the statement, are set out below.

Please tick the box next to the category that describes how this AACR is being signed. If you are uncertain about who is entitled to sign or which category to tick, please contact the licensing officer for your premises.

| If the licence holder is                           |                                                                                                                                                                      | The Annual Audit Compliance Report must be signed and certified:                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |
|----------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| An individual                                      | <input type="checkbox"/><br><input type="checkbox"/>                                                                                                                 | by the individual licence holder, or<br>by a person approved in writing by the Chief Executive Officer of the Department of Environment Regulation to sign on the licensee's behalf.                                                                                                                                                                                                                                                                                                                                                                                         |
| A firm or other unincorporated company             | <input type="checkbox"/><br><input type="checkbox"/>                                                                                                                 | by the principal executive officer of the licensee; or<br>by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.                                                                                                                                                                                                                                                                                                                                                 |
| A corporation                                      | <input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/><br><input type="checkbox"/> | by affixing the common seal of the licensee in accordance with the <i>Corporations Act 2001</i> ; or<br>by two directors of the licensee; or<br>by a director and a company secretary of the licensee, or<br>if the licensee is a proprietary company that has a sole director who is also the sole company secretary – by that director, or<br>by the principal executive officer of the licensee; or<br>by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation. |
| A public authority (other than a local government) | <input type="checkbox"/><br><input type="checkbox"/>                                                                                                                 | by the principal executive officer of the licensee; or<br>by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment Regulation.                                                                                                                                                                                                                                                                                                                                                 |
| a local government                                 | <input type="checkbox"/><br><input type="checkbox"/>                                                                                                                 | by the chief executive officer of the licensee; or<br>by affixing the seal of the local government.                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |

It is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give information on this form that to their knowledge is false or misleading in a material particular. There is a maximum penalty of \$50,000 for an individual or body corporate.

I/We declare that the information in this annual audit compliance report is correct and not false or misleading in a material particular.

SIGNATURE: \_\_\_\_\_

NAME:  
(printed) \_\_\_\_\_

POSITION: \_\_\_\_\_

DATE: \_\_\_\_/\_\_\_\_/\_\_\_\_

SEAL (if signing under seal)

SIGNATURE: \_\_\_\_\_

NAME:  
(printed) \_\_\_\_\_

POSITION: \_\_\_\_\_

DATE: \_\_\_\_/\_\_\_\_/\_\_\_\_



Licence: L8898/2015/1  
Form: N1

Licensee: BHP Billiton Iron Ore Pty. Ltd.  
Date of breach:

**Notification of detection of the breach of a limit.**

These pages outline the information that the operator must provide.  
Units of measurement used in information supplied under Part A and B requirements shall be appropriate to the circumstances of the emission. Where appropriate, a comparison should be made of actual emissions and authorised emission limits.

**Part A**

|                                |  |
|--------------------------------|--|
| Licence Number                 |  |
| Name of operator               |  |
| Location of Premises           |  |
| Time and date of the detection |  |

| Notification requirements for the breach of a limit           |  |
|---------------------------------------------------------------|--|
| Emission point reference/ source                              |  |
| Parameter(s)                                                  |  |
| Limit                                                         |  |
| Measured value                                                |  |
| Date and time of monitoring                                   |  |
| Measures taken, or intended to be taken, to stop the emission |  |



## Part B

|                                                                                                                                                         |  |
|---------------------------------------------------------------------------------------------------------------------------------------------------------|--|
| Any more accurate information on the matters for notification under Part A.                                                                             |  |
| Measures taken, or intended to be taken, to prevent a recurrence of the incident.                                                                       |  |
| Measures taken, or intended to be taken, to rectify, limit or prevent any pollution of the environment which has been or may be caused by the emission. |  |
| The dates of any previous N1 notifications for the Premises in the preceding 24 months.                                                                 |  |

|                                                           |  |
|-----------------------------------------------------------|--|
| Name                                                      |  |
| Post                                                      |  |
| Signature on behalf of<br>BHP Billiton Iron Ore Pty. Ltd. |  |
| Date                                                      |  |



# Decision Document

## *Environmental Protection Act 1986, Part V*

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**Proponent:**      **BHP Billiton Iron Ore Pty. Ltd.**

**Licence:**          **L8898/2015/1**

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**Registered office:**      125 St Georges Terrace  
Brookfield Place  
PERTH WA 6000

**ACN:**                      008 700 981

**Premises address:**      Quarry 2 Sleeper Storage Area  
BHP Billiton Iron Ore Newman Mainline  
Crown Lease I123599  
Via Pippingarra Road  
Indee  
PORT HEDLAND WA 6721  
Being Lot 141 on Deposited Plan 48923

**Issue date:**              Thursday, 17 September 2015

**Commencement date:**   Monday, 21 September 2015

**Expiry date:**              Sunday, 20 September 2020

### **Decision**

Based on the assessment detailed in this document the Department of Environment Regulation (DER), has decided to issue a licence. DER considers that in reaching this decision, it has taken into account all relevant considerations.

Decision Document prepared by:                      Caroline Conway-Physick  
Licensing Officer

Decision Document authorised by:                      Steve Checker  
Delegated Officer



## Contents

|                                                |    |
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| 3 Executive summary of proposal and assessment | 4  |
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| 6 Risk Assessment                              | 13 |

## 1 Purpose of this Document

This decision document explains how DER has assessed and determined the application and provides a record of DER's decision-making process and how relevant factors have been taken into account. Stakeholders should note that this document is limited to DER's assessment and decision making under Part V of the *Environmental Protection Act 1986*. Other approvals may be required for the proposal, and it is the proponent's responsibility to ensure they have all relevant approvals for their Premises.





## 2 Administrative summary

| Administrative details                                                                                                                                                                                                   |                                                                                                                                                                                               |                                                                                                                           |
|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------|
| Application type                                                                                                                                                                                                         | Works Approval <input type="checkbox"/><br>New Licence <input checked="" type="checkbox"/><br>Licence amendment <input type="checkbox"/><br>Works Approval amendment <input type="checkbox"/> |                                                                                                                           |
| Activities that cause the premises to become prescribed premises                                                                                                                                                         | <b>Category number(s)</b>                                                                                                                                                                     | <b>Assessed design capacity</b>                                                                                           |
|                                                                                                                                                                                                                          | 62 – Solid waste depot                                                                                                                                                                        | 10,000 tonnes per annual period                                                                                           |
| Application verified                                                                                                                                                                                                     | Date: 1/07/2015                                                                                                                                                                               |                                                                                                                           |
| Application fee paid                                                                                                                                                                                                     | Date: 1/07/2015                                                                                                                                                                               |                                                                                                                           |
| Works Approval has been complied with                                                                                                                                                                                    | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>                                                                                              |                                                                                                                           |
| Compliance Certificate received                                                                                                                                                                                          | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>                                                                                              |                                                                                                                           |
| Commercial-in-confidence claim                                                                                                                                                                                           | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>                                                                                                                           |                                                                                                                           |
| Commercial-in-confidence claim outcome                                                                                                                                                                                   | N/A                                                                                                                                                                                           |                                                                                                                           |
| Is the proposal a Major Resource Project?                                                                                                                                                                                | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>                                                                                                                           |                                                                                                                           |
| Was the proposal referred to the Environmental Protection Authority (EPA) under Part IV of the <i>Environmental Protection Act 1986</i> ?                                                                                | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>                                                                                                                           | Referral decision No:<br>Managed under Part V <input type="checkbox"/><br>Assessed under Part IV <input type="checkbox"/> |
| Is the proposal subject to Ministerial Conditions?                                                                                                                                                                       | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>                                                                                                                           | Ministerial statement No:<br>EPA Report No:                                                                               |
| Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the <i>Environmental Protection Act 1986</i> )?                                                                       | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/><br>Department of Water consulted Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>                      |                                                                                                                           |
| Is the Premises within an Environmental Protection Policy (EPP) Area Yes <input type="checkbox"/> No <input checked="" type="checkbox"/><br>If Yes include details of which EPP(s) here.                                 |                                                                                                                                                                                               |                                                                                                                           |
| Is the Premises subject to any EPP requirements? Yes <input type="checkbox"/> No <input checked="" type="checkbox"/><br>If Yes, include details here, eg Site is subject to SO <sub>2</sub> requirements of Kwinana EPP. |                                                                                                                                                                                               |                                                                                                                           |



### 3 Executive summary of proposal and assessment

BHP Billiton Iron Ore Pty Ltd have constructed a temporary railway sleeper storage area to relocate numerous old timber railway sleepers as a result of various operations to transport product around the Pilbara region via rail networks. Through maintenance and upgrades on the various rail networks, stockpiles of old treated timber railway sleepers are now estimated to be approximately 10,000 tonnes.

The 'Quarry 2 sleeper storage area' is located on Lot 141 on Deposited Plan 48923, Crown Lease I123599, Indee, Port Hedland, adjacent to Quarry 2, located at the 73 chainage marker on the BHP Billiton Iron Ore Newman Mainline. The facility is located approximately 73 kilometers from Port Hedland.

The sleeper storage area is for the temporary storage of up to 60,000 old treated railway sleepers until a preferred final treatment/ disposal solution is determined. The construction of the premises was undertaken through works approval W5851/2015/1. The compliance report was received by DER on 21 August 2015.

The Premises is located on five hectares of an area that was previously utilised as a quarry and stockpile area for the storage of railway ballast and other materials and equipment used in the operation and maintenance of the railway line (in accordance with the *Iron Ore (Mount Newman) Agreement Act, 1964*). The storage area has a 150mm compacted hardstand on which the old timber sleepers are to be placed.

The storage and stacking plan of the timber railway sleepers, consists of:

- each block of sleepers located within the storage area must be at a distance of 15m apart to allow for access between blocks;
- each sleeper stack will consist of approximately 150 bundles (approximate dimensions of 13m x 10m x 3m);
- each sleeper bundle will consist of 20 to 25 sleepers; and
- a minimum 3m firebreak will be maintained around the outer boundary of the sleeper laydown area with a 2m internal firebreak.

Groundwater flow is west-south west across the facility consistent with the surface water drainage of the site as well. The premises is not located within a proclaimed drinking water reserve and depth to groundwater at the site is unknown. A desktop assessment of a groundwater bore 10m south west of the laydown area (Wayeranna Well) identified groundwater to be approximately 3.5m below ground. The well is no longer in use however it was originally used for livestock watering. The soils of the area are defined by the proponent as 'hard setting soils with dispersible clay subsoils.'

The closest residential areas to the storage area is Indie and Wallareenya Stations which are located approximately 18km north west and 24km north, north east of the premises respectively. The Great Northern Highway is located approximately 9km west of the premises. The nearest surface water body is 5.7km north east of the storage area (Turner River catchment area).

The main potential risks from the premises include fire (air emissions) and potential contamination of land and groundwater.

This Licence is for the operation of a new facility in accordance with the *Environmental Protection Regulations 1987*, for a Category 62 – Solid Waste Depot, for the temporary storage of old/ used timber railway sleepers from various 'BHPBIO Port Hedland Rail Operations'. The Licence has been issued for a five year period for temporary relocation of old timber sleepers from the BHP rail operations, for final disposal to an appropriate licenced landfill or until a preferred final treatment/disposal solution is determined.



## 4 Decision table

All applications are assessed in line with the *Environmental Protection Act 1986*, the *Environmental Protection Regulations 1987*, and DER's Operational Procedure on Assessing Emissions and Discharges from Prescribed Premises. Where other references have been used in making the decision they are detailed in the decision document.

| DECISION TABLE     |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                         |
|--------------------|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------|
| Licence section    | Condition number<br>L= Licence | Justification (including risk description & decision methodology where relevant)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                | Reference documents                                                                                                                                     |
| General conditions | L1.2                           | <p><b>Operation</b><br/>General conditions 1.2.1-1.2.4 have been included which are standard licence format conditions.<br/>Condition 1.2.5 requires the proponent to define the boundary of the 'Quarry 2 sleeper storage area' for the purposes of identification and monitoring requirements with the inclusion of boundary markers.</p> <p>The premises is not required to be fenced due to its isolated and remote location which also has restricted access roads. The potential impact to fauna, identified by BHP Biodiversity team, indicated that the placement of a boundary fence around the premises posed a greater risk to local quoll populations than leaving the area unfenced, as there was the potential for animals to be injured trying to access the facility. The sleeper bundles will offer potential temporary means of shelter. It is considered that, in the event of a fire, a fence will also pose a threat to fauna located within the area and it would also restrict the ability of BHP personnel to manage the fire event through restricted access to the area boundary.</p> | Application supporting documentation                                                                                                                    |
| Premises operation | L1.3                           | <p><b>Operation</b><br/>The storage area is a temporary construction until appropriate final disposal of the timber railway sleepers can be carried out at a licenced landfill.</p> <p><u>Emission Description</u><br/><i>Emission:</i> Potential risk of air emissions from arson or accidental fire at the premises and contamination of land and groundwater from leachates.</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             | Application supporting documentation<br><br>General provisions of the <i>Environmental Protection Act 1986</i> .<br><br><i>Environmental Protection</i> |



| DECISION TABLE  |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                               |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  |
|-----------------|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Licence section | Condition number<br>L= Licence | Justification (including risk description & decision methodology where relevant)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Reference documents                                                                                                                                                                                                                                                                                                                                                                                                                                                              |
|                 |                                | <p>DER assessment of the initial 'timber shaving' sampling results of the 65 timber sleepers carried out by 'BHP' (OTEK 2011) using the leachate method (ASLP), identified high levels of Phenol and Naphthalene within the core of the timber sleepers. Additional sampling supplied by BHPBIO (Coffey, ENAUPERT02707AG_L01 EP2015/083) on 24/06/2015 identified that soils where timber sleepers had been stored on in-situ soils for up to 10 years, had shown negligible leachability of relevant contaminants to the maximum depth of leachate penetration (0.2m) (GHD Pty Ltd., 61/32193/150756, pg. 2). GHD have stated that "where present, impacts to surface soils were limited to pesticides (Aldrin, Dieldrin) and mid-range total petroleum hydrocarbons (TRH<sub>16-40</sub>) and some PAHs, and all were close to the reporting limits. None of the detections exceeded relevant investigation levels. Further, phenols and naphthalene were not detected in soils."</p> <p><i>Impact:</i> Contamination of surrounding air, land and groundwater drainage systems from the accidental burning or laydown of treated timber sleepers respectively which contain remnants of insecticides (dieldrin), preservatives (creosote) and heavy metals (as fungicide and UV protection).</p> <p>The old/ used timber railway sleepers have been removed as part of maintenance along the Newman Rail and surrounding networks and are at least 30-50 years old and are considered to have low leachability levels remaining.</p> <p>The premises is located on an isolated, remote and relatively flat area with a slight fall to the south western corner of the premises which will flow towards a previously disturbed, contaminated area of the railway formations.</p> <p><i>Controls:</i> Whole sleepers will be placed on concrete rail sleepers to raise them off the ground, with broken sleepers being placed within an area at the site that will not allow for surface water pooling/ ponding. The site is adjacent to an already identified 'potentially contaminated site' (<i>Contaminated Sites Act 2003</i>). BHP Billiton Iron Ore Pty Ltd will ensure that the sleeper storage area is operated and decommissioned in accordance with the requirements of the <i>Contaminated Sites Act 2003</i>, and will undertake monitoring</p> | <p>(<i>Unauthorised Discharges</i>) Regulations 2004.</p> <p><i>Environmental Protection (Controlled Waste) Regulations 2004.</i></p> <p>Contaminated Sites Management Series - Bioremediation of hydrocarbon-contaminated soils in Western Australia , 2004</p> <p><i>Contaminated Sites Act, 2003.</i></p> <p>Landfill Waste Classification and Waste Definitions 1996 (as amended).</p> <p>Australian and New Zealand Guideline for Fresh and Marine Water Quality, 2000.</p> |



| DECISION TABLE     |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        |                                      |
|--------------------|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------|
| Licence section    | Condition number<br>L= Licence | Justification (including risk description & decision methodology where relevant)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                       | Reference documents                  |
|                    |                                | <p>of the site as per a predefined monitoring schedule supplied by DER accredited, Contaminated Sites Auditor (John Throssell) and as defined in the Licence, section 2, 'Monitoring'.</p> <p>The sleepers will be transported to site by a controlled waste carrier and the site will be registered as a controlled waste disposal site by the proponent. Soil permeability testing has not been carried out at the proposed site, however soil types have been defined as 'hard setting soils with dispersible clay subsoils'.</p> <p>The proponent will inspect the site on a weekly (general) and monthly (detailed) basis for fire risk, security or any other issues identified.</p> <p><u>Risk Assessment</u><br/>Consequence: Minor<br/>Likelihood: Possible<br/>Risk Rating: Moderate</p> <p><u>Regulatory Controls</u><br/>Condition 1.3.1-1.3.5 has been added to the Licence to ensure appropriate acceptance and processing of timber sleepers at the facility.</p> <p><u>Residual Risk</u><br/>Consequence: Minor<br/>Likelihood: Possible<br/>Risk Rating: Moderate</p> |                                      |
| Monitoring general | L2.1                           | <p><b>Operation</b><br/>Conditions 2.1.1-2.1.2 includes administrative requirements for sampling standards, monitoring frequency timeframes and calibration requirements for monitoring purposes. Condition 2.1.3-2.1.4 is a general condition which ensures all monitoring equipment is calibrated for the purposes of monitoring requirements.<br/>Condition 2.1.5 requires the proponent to ensure that the monitoring schedule</p>                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 | Application supporting documentation |



| DECISION TABLE                   |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          |                                                                                                                                                                                                                                                                                                                                                            |
|----------------------------------|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Licence section                  | Condition number<br>L= Licence | Justification (including risk description & decision methodology where relevant)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         | Reference documents                                                                                                                                                                                                                                                                                                                                        |
|                                  |                                | requirements (as defined within the submission documentation) is complied with, as defined by the Contaminated Sites accredited auditor (John Throssell).                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                |                                                                                                                                                                                                                                                                                                                                                            |
| Monitoring of inputs and outputs | L2.2                           | <b>Operation</b><br>Condition 2.2.1 has been included within the Licence to ensure effective recording of total numbers of timber sleepers received or removed from the Premises occurs.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                 |                                                                                                                                                                                                                                                                                                                                                            |
| Process monitoring               | L2.3                           | <b>Operation</b><br>Condition 2.3.1 requires the Licensee to inspect the Premises weekly (visually) and monthly (written report) as defined within their submission documentation and in support of ongoing risk assessment and management of the facility.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              | Application supporting documentation                                                                                                                                                                                                                                                                                                                       |
| Ambient quality monitoring       | L2.4                           | <b>Operation</b><br>The storage area is a temporary construction until appropriate final disposal of the timber railway sleepers can be carried out at a licenced landfill.<br><br><u>Emission Description</u><br><i>Emission:</i> Potential risk of emissions from leachates being released from the treated timber sleepers to land.<br><i>Impact:</i> Contamination of localised soils from the laydown of treated timber sleeper leachates which contain remnants of insecticides (dieldrin), preservatives (creosote) and heavy metals (as fungicide and UV protection). The old/ used timber railway sleepers have been removed as part of maintenance along the Newman Rail and surrounding networks and are at least 30-50 years old and are considered to have low leachability levels remaining.<br><i>Controls:</i> The premises is located on an isolated, remote and relatively flat area with a slight fall to the south western corner of the premises which will flow towards a previously disturbed, contaminated area of the railway formations. Whole sleepers will be placed on concrete rail sleepers to raise them off the ground, with broken sleepers being placed within an area at the site that will not allow for surface water pooling. The site is adjacent to an already identified 'potentially contaminated site' ( <i>Contaminated</i> | Application supporting documentation.<br><br>Contaminated Sites Management Series - Assessment levels for Soil, Sediment and Water, 2010<br><br>Australian and New Zealand Guidelines for Fresh and Marine water quality, 2000'.<br><br>Landfill Waste Classifications and Waste Definitions 1996 (as amended)', Table 3 for 'Class II landfill disposal'. |





| DECISION TABLE  |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     |                     |
|-----------------|--------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| Licence section | Condition number<br>L= Licence | Justification (including risk description & decision methodology where relevant)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                    | Reference documents |
|                 |                                | <p><i>Sites Act 2003</i>). BHP Billiton Iron Ore Ltd will ensure that the sleeper storage area is operated and decommissioned in accordance with the requirements of the <i>Contaminated Sites Act 2003</i>, and will undertake monitoring of the site as per a predefined monitoring schedule supplied by DER accredited, Contaminated Sites Auditor (John Throssell) and as defined in the Licence, section 3.</p> <p>Broken sleepers will be placed directly onto the 150mm compacted hardstand surface above the in-situ soils of the premises for temporary storage until final disposal to a licenced landfill. Whole sleepers will be raised above ground and placed upon concrete sleepers.</p> <p>The sleepers will be transported to site by a controlled waste carrier and the site will be registered as a controlled waste disposal site by the proponent. Soil permeability testing has not been carried out at the proposed site, however soil types have been defined as 'hard setting soils with dispersible clay subsoils'.</p> <p>The proponent will inspect the site on a weekly (general) and monthly (detailed) basis for fire risk, security or any other issues identified.</p> <p>An assessment report by Coffey Environmental (submitted by BHP, 25/06/2015) of the drip zone around sleepers at other BHP sites, stated that sleepers on in-situ soils between three to ten years showed that leachates were entering the soil to a depth of 0.2m, with no identified parameters triggering ANZECC (2000) Guidelines for Fresh and Marine water quality, Table 5.2.3.</p> <p>There are three monitoring bores (MW1-MW3) installed at the premises for the purposes of monitoring groundwater. Ambient monitoring results undertaken during the works period (JBS&amp;G and Coffey Environments Pty Ltd) identified elevated levels of TRH contaminants, with slightly elevated copper levels (0.12mg/L) in MW2 against ANZECC 2000 guidelines, table 5.2.3. ALS environmental analysed the results against NEPM 2013, schedule B(3).</p> |                     |



| DECISION TABLE   |                                |                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |                                       |
|------------------|--------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------------------------|
| Licence section  | Condition number<br>L= Licence | Justification (including risk description & decision methodology where relevant)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                        | Reference documents                   |
|                  |                                | <p><u>Risk Assessment</u><br/>Consequence: Minor<br/>Likelihood: Possible<br/>Risk Rating: Moderate</p> <p><u>Regulatory Controls</u><br/>Condition 2.4.1 defines monitoring location, parameters and frequency for the premises for monitoring emissions to groundwater.</p> <p>Condition 2.4.2 defines monitoring location, parameters and frequency for the premises for monitoring ambient soil quality.</p> <p><u>Residual Risk</u><br/>Consequence: Minor<br/>Likelihood: Possible<br/>Risk Rating: Moderate</p>                                                                                                                                                                  |                                       |
| Information      | L3.1.1-L3.1.4                  | Standard administrative conditions have been included within the Licence for reporting, including complaints management and Annual Audit Compliance reporting requirements.                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                             |                                       |
| Licence Duration | N/A                            | <p>The Licence is being proposed for a period of five years. The application was requested for a five year period by the proponent for the temporary storage of treated timber railway sleepers until disposal to a licenced landfill or other suitable disposal option is determined.</p> <p>As part of BHP's risk management, redundant old sleepers have been consolidated and relocated to one site for improved management of the old timber sleepers.</p> <p>The 30-50 year old timber sleepers were previously treated with creosote, dieldrin, UV and fungicide protectors and have been progressively removed from the BHP Newman Rail networks through maintenance works.</p> | Application supporting documentation. |



| DECISION TABLE  |                                |                                                                                                                                                          |                     |
|-----------------|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------|---------------------|
| Licence section | Condition number<br>L= Licence | Justification (including risk description & decision methodology where relevant)                                                                         | Reference documents |
|                 |                                | Storage at previous locations identified contaminants from the stored sleepers penetrated soil to a depth of 0.2m when left in-situ, between 3-10 years. |                     |



## 5 Advertisement and consultation table

| Date       | Event                                                                                  | Comments received/Notes                                                                | How comments were taken into consideration                                                                                                                                                                                                                                                                                                                                                                                                                                                               |
|------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 22/06/2015 | Application advertised in West Australian (or other relevant newspaper).               | Nil                                                                                    | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |
| 01/09/2015 | Proponent sent a copy of draft instrument.                                             | Comments received from proponent 09/09/2015. Response sent to proponent on 10/09/2015. | Minor changes required to Licence:<br>Pg. 1: Update of address change;<br>Pg. 3: Design of storage area changed;<br>Pg. 4: Addition of disposal options;<br>Pg. 5: Reporting period changed to BHP reporting period 1 July – 30 June;<br>Pg. 6: Addition of disposal option;<br>Pg. 7: Update of storage design and disposal option;<br>Pg. 7: Monitoring frequency definitions updated;<br>Pg. 10: Submission of report changed to 92 days after reporting period;<br>Pg. 13: Update of storage design. |
| 01/09/2015 | Department of State Development (Paul Platt) contacted by phone to inform of proposal. | No comments or additional considerations proposed.                                     | N/A                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      |



## 6 Risk Assessment

*Note: This matrix is taken from the DER Corporate Policy Statement No. 07 - Operational Risk Management*

**Table 1: Emissions Risk Matrix**

| 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    |