



Decision Document

Environmental Protection Act 1986, Part V

Licensee: Hanson Construction Materials Pty Ltd

Licence: L4414/1968/12

Registered office: Level 6,
35 Clarence Street
SYDNEY NSW 2000

ACN: 009 679 734

Premises address: Hanson Construction Materials Pty Ltd - Herne Hill/Red Hill
RED HILL
WA 6056
Being Lot 11 on Plan 3047 as depicted in Schedule 1

Issue date: 25 September 2015

Commencement date: 1 October 2015

Expiry date: 30 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 and legal requirements and that the Licence and its conditions will ensure that an appropriate level of environmental protection is provided.

Decision Document prepared by:

Louise Lavery
Licensing Officer

Decision Document authorised by:

Danielle Eyre
Delegated Officer



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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"/> New Licence <input checked="" type="checkbox"/> Licence amendment <input type="checkbox"/> Works Approval amendment <input type="checkbox"/> | |
| Activities that cause the premises to become prescribed premises | Category number(s) | Assessed design capacity |
| | 12 | 2 000 000 tonnes per year |
| Application verified | Date: 19/08/2015 | |
| Application fee paid | Date: 31/08/2015 | |
| Works Approval has been complied with | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> | |
| Compliance Certificate received | Yes <input type="checkbox"/> No <input type="checkbox"/> N/A <input checked="" type="checkbox"/> | |
| Commercial-in-confidence claim | Yes <input type="checkbox"/> No <input checked="" type="checkbox"/> | |
| Commercial-in-confidence claim outcome | | |
| 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 checked="" type="checkbox"/> No <input type="checkbox"/> | Referral decision No: Managed under Part V <input type="checkbox"/> Assessed under Part IV <input checked="" type="checkbox"/> |
| Is the proposal subject to Ministerial Conditions? | Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> | Ministerial statement No: 199, 912 |



| | |
|--|--|
| | EPA Report No:510, 1381 |
| 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"/> 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"/> 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"/> If Yes, include details here, eg Site is subject to SO ₂ requirements of Kwinana EPP. | |

3 Executive summary of proposal and assessment

Hanson Construction Materials Pty Ltd (Hanson) operates Red Hill Quarry (quarry), extracting hard rock from the Red Hill pit. The quarry lies within an area of the Darling Scarp on the eastern outskirts of the Perth Metropolitan Area. The quarry and associated infrastructure are located on Lot 11 Toodyay Road between Susannah Brook and Toodyay Road. The quarry was opened and brought into production in 1998. The lot is located in the City of Swan and covers an area of 800 hectares.

Hanson has been operating at Lot 11 since 1963, currently as the Red Hill Pit and previously as the Herne Hill Pit. The Herne Hill Quarry (located to the south west of Red Hill Quarry within the Premises boundary) has not been operated since 1998 and has been retained pending decisions on future land use.

The Red Hill Quarry was granted approval to be constructed and operated by the Minister for the Environment on 4 December 1991, in Ministerial Statement 199. An extension to the Red Hill Quarry to the north and west was approved by the Minister on 9 October 2012 in Ministerial Statement 912.

The quarry extracts and processes granite and diorite. Product stockpiles are retained on site. The main emissions from the quarrying activities are dust, noise and potential impact to surface water from site run-off. Dust monitoring is carried out visually and directional dust collectors allow for the analysis of dust and verification of Hanson's dust mitigations methods. These include regular watering of all roads, sprinkler systems in the stockpile areas and automatic water sprays on the crushers. Noise sources on site include drilling and blasting, crushing and screening and transport movements. Plant is fitted with shields or noise suppression devices and trucks are restricted to designated roads. Blasts are designed and monitored by consultants to ensure they meet the requirements of the *Environmental Protection (Noise) Regulations 1997*.

Susannah Brook traverses through the Premises from east to west. A number of other water courses and drainage lines are located on the Premises and also drain to the west including Strelly Brook which feeds into a tributary of Jane Brook. Two water storage dams, the north water storage dam and the south west storage dam are located on the Premises. These dams collect stormwater run-off and also provide water for dust suppression. No water discharges occur from the south west storage dam. The north water storage dam overflows in times of high rainfall to Susannah Brook. A surface water monitoring program and management plan is in place under Ministerial Statement 199 to monitor and manage the water quality of these discharges.

This is partial decision document for licence L4414/1968/12 and is a new template licence. It includes an increase to the processing capacity authorised under category 12, which was applied for on 24 July 2014 and a subsequent application to increase the authorised production or design capacity to 2 million tonnes, applied for on 16 April 2015.



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 | | | |
|--|---|---|---|
| Works Approval / Licence section | Condition number W = Works Approval L = Licence | Justification (including risk description & decision methodology where relevant) | Reference documents |
| Premises Category | N/A | The Premises category throughput has been increased by 100% from 1 000 000 tpa to 2 000 000 tpa. There is no associated change in the quarry footprint approved under Ministerial Statements 705 (Herne Hill - not currently operating) and 912 (Red Hill) or additional/upsized processing sections or equipment. | |
| Premises operation | L1.3.1 | The storage dams have been listed on the Licence as containment infrastructure. | General provisions of the <i>Environmental Protection Act 1986</i> |
| | L1.3.2, L1.3.3 | These conditions have not been reassessed. L1.3.2 replaces previous licence condition W1 and L1.3.3 replaces previous condition W4. | |
| Emissions general | L2.1.1 | Descriptive limits will be set through condition 2.6.2 of the licence and therefore condition regarding recording and investigation of exceedances of limits has been included. | N/A |
| Point source emissions to surface water including monitoring | L2.2.1, L3.2.1 | L2.2.1 and L3.2.1 replace previous conditions W2(a)- W2 (e) and W3. The previous reference to monitoring bores has been corrected to refer to monitoring sites. L3.2.1 requires that water quality parameters are monitored, but a compliance inspection on 20 January 2015 has identified that there is no requirement to monitor the volume discharged which is required to assess the impacts, including total nutrient loading, on the receiving environment. A requirement to investigate and report to DER on potential methods for monitoring the volume of discharge has been added to table 4.1.1 (IR1 and IR2). | Hanson (2013) Summary of <i>Water Management – Hanson Red Hill Quarry</i> , June 2013 |
| Fugitive emissions | L2.3.1, Table 2.3.1 | DER's assessment and decision making is included in Appendix A | Refer Appendix A |
| Noise | L2.4.1, L3.2.2 | These conditions have not been reassessed. L2.4.1 replaces previous licence | |



| DECISION TABLE | | | |
|----------------------------------|--|---|--|
| Works Approval / Licence section | Condition number W = Works Approval L= Licence | Justification (including risk description & decision methodology where relevant) | Reference documents |
| | | conditions N2(a)and N2(b). L3.2.2 replaces previous conditions N1(a),N3(a), N3(b) | |
| Information | L5.2.1 | An addition to the reporting requirements for the AER is to provide a summary of failures or malfunctions of pollution control equipment and any environmental incidents. | General provisions of the <i>Environmental Protection Act 1986</i> |
| Licence Duration | N/A | The licence has been reissued for a five year period. | N/A |



5 Advertisement and consultation table

| Date | Event | Comments received/Notes | How comments were taken into consideration |
|------------|------------------------|-------------------------|--|
| 31/08/2015 | Application advertised | None received | 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 |



Appendix A

Fugitive dust emissions

Normal Operations

Emission Description

Emission: Fugitive dust from quarry operations, specifically from:

- physical disturbance of the land surface during clearing
- drilling and blasting of rock to establish the quarry face and enable extraction of rock
- vehicle movement on unsealed roads and movement of heavy vehicles with uncovered loads
- crushing and screening to grade aggregate
- wind erosion of dry exposed surfaces such as open pit areas, stockpiles, unsealed roads.
- movement of trucks offsite

Impact: Reduced local air quality. Dust can smother vegetation and create nuisance at nearby residences. The nearest sensitive receptor as identified by Ministerial Statement 912 is approximately 1100m from the most western boundary of the pit. This sensitive receptor location is identified in Figure 3 of Ministerial Statement 912. The closest residence is approximately 2km to the north. There are also adjacent businesses and activities that contribute to dust in local area.

Controls: The Licensee has developed and implemented dust suppression methods, including induction training for employees, visual observations and management procedures, use of water carts, automatic sprinkler systems, enclosed conveyors and bag houses on the screening plant. A progressive rehabilitation program is also in progress to minimise total area of exposed surfaces.

Risk Assessment

Consequence: Moderate

Likelihood: Possible

Risk Rating: Moderate

Regulatory Controls

A Dust Management Plan has been developed by the Licensee to manage dust emissions. This dust management plan prescribes targets for overall performance, management actions, a monitoring program and contingency actions to be adopted in the event of adverse results from the monitoring program. The monitoring program includes visual observations as well as a directional deposition dust monitoring program at 4 sites on the Premises and ambient air quality monitoring at the sensitive receptor nominated in Ministerial Statement 912. This monitoring program is conducted in accordance with Australian Standard AS/NZS3580.9.11:2008 and DER dust guidelines.

This dust management plan is required to be implemented as per condition L2.3.1. Data from the monitoring program is required to be reported through the Annual Environmental Report as per condition L5.2.1.

Ministerial Statement 912 condition 9-2 imposes an ambient air quality target concentration for PM10 at the western sensitive receptor location as nominated in Figure 3 of Ministerial Statement 912.

Residual Risk Rating

Consequence: Moderate

Likelihood: Possible

Risk Rating: Moderate



References

AS/NZS 3580.9.11:2008 *Methods for sampling and analysis of suspended particulate matter – PM10 beta attenuation monitors*

DER (2011) *A guideline for managing the impacts of dust and associated contaminants from land development sites, contaminated sites remediation and other related activities*, January 2011

Hanson Construction Materials (2013) *Dust Management Plan – Red Hill Quarry*, version 2.05, 22/3/2013, Sections 3.4 – 3.6

Ministerial Statement 912