



Decision Document

Environmental Protection Act 1986, Part V

Licensee: Fortescue Metals Group Limited

Licence: L8700/2012/1

Registered office: Level 2
87 Adelaide Terrace
EAST PERTH WA 6892

ACN: 002 594 872

Premises address: Kanyirri Fuel Facility
Special Rail Licence L1SA
Within the area bounded by coordinates: 663,881E, 7,740,665N;
663,739E, 7,740,603N; 663,421E, 7,741,250N; 663633E, 7741169N
(MGA Zone 50).
BOODARIE WA 6172

Issue date: Friday, 25 January 2013

Commencement date: Friday, 25 January 2013

Expiry date: Wednesday, 24 January 2024

Decision

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

Decision Document prepared by: Fiona Roser
Licensing Officer

Decision Document authorised by: Jonathan Bailes
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 type="checkbox"/> Licence amendment <input type="checkbox"/> Works Approval amendment <input checked="" type="checkbox"/>
Activities that cause the premises to become prescribed premises	Category number(s)
	Assessed design capacity
	73 6,100 cubic metres
Application verified	Date: NA
Application fee paid	Date: NA
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 checked="" 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 checked="" type="checkbox"/> No <input 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"/>
	Part of port and rail project. Ministerial statement No: 690 EPA Report No: 1173



Administrative details	
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 checked="" type="checkbox"/> No <input 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"/>
Is the Premises subject to any EPP requirements?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>

3 Executive summary of proposal and assessment

Fortescue Metals Group Limited (FMG) operates the Kanyirri Fuel Facility, a permanent bulk diesel storage and locomotive provisioning facility along the FMG mainline railway, to meet the increased diesel supply requirements of FMG's Christmas Creek, Cloudbreak and Solomon mines. The facility is located 6.5 km south of the Herb Elliot Port Facility, between Chainage 6.2 and 7.4 of the North-South Railway, which is 12km south of Port Hedland, 6km south-south-west of Wedgefield and 4km south-west of South Hedland.

The Kanyirri Fuel Facility has a fuel storage capacity of 6.1ML, consisting of two 3ML and one 110KL fuel storage tanks. The tanks are filled by triple road trains from Port Hedland, with the fuel supplying diesel for FMG's mine operations by rail.

FMG has been undertaking biannual groundwater monitoring since the commencement of the Licence in 2013. This licence is the result of an amendment sought by FMG to remove conditions relating to groundwater monitoring.

Where changes have been made to the Licence, they are detailed in Section 4.



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
General conditions	Previously conditions 1.2.1 – 1.2.4	DER's risk assessment is detailed in Appendix A.	See Appendix A
Fugitive emissions	Previously L2.6.1	<p><u>Emission Description</u> <i>Emission:</i> Dust generated from the movement of vehicles and machinery. <i>Impact:</i> Nuisance dust and reduction of local air quality. South Hedland is located 3km to the north east. <i>Controls:</i> All roads within the Kanyirri Fuel Facility are sealed with the exception of one access track which is subject to speed restriction. Water carts are also utilised where required.</p> <p><u>Risk Assessment</u> <i>Consequence:</i> Insignificant <i>Likelihood:</i> Rare <i>Risk Rating:</i> Low</p> <p><u>Regulatory Controls</u> Condition 2.6.1 relating to dust has been removed from the licence. Emissions were originally assessed as no regulation required, as other management mechanisms were sufficient to control the risk. However, standard generic fugitive emission conditions were added to the licence. In accordance with administrative changes implemented within the Department of Environment Regulation, generic fugitive emission conditions will not be used in relation to dust, which can constitute a substantive offence under the EP Act. Given the low risk, no specific regulatory controls are required in the licence</p>	<p>Application for licence – October 2012</p> <p><i>Environmental Protection Act 1986</i></p> <p>Guidance Statement: Setting conditions</p>



DECISION TABLE			
Works Approval / Licence section	Condition number W = Works Approval L = Licence	Justification (including risk description & decision methodology where relevant)	Reference documents
		and the emissions can be sufficiently regulated under section 49 of the EP Act. <u>Residual Risk</u> <i>Consequence:</i> Insignificant <i>Likelihood:</i> Rare <i>Risk Rating:</i> Low	
Monitoring general	L3.1.1	Conditions have been updated to remove Australian Standards that are relevant to groundwater sampling as groundwater monitoring is no longer required under the Licence.	N/A
Ambient quality monitoring	N/A	Conditions relating to groundwater monitoring have been removed from the licence (Refer to Appendix A).	Application supporting documentation
Information	L4.2.1.	Reporting conditions have been updated to remove requirements to report groundwater monitoring. Submission of external monitoring reports (e.g. laboratory reports) has been converted to a non-annual reporting requirement in accordance with the current licence template.	N/A
Licence Duration	N/A	The licence duration has been extended by DER in accordance with Guidance Statement: Licence Duration. Tenure for the Premises expires in 2056.	Guidance Statement: Licence Duration.



5 Advertisement and consultation table

Date	Event	Comments received/Notes	How comments were taken into consideration
21/04/2016	Proponent sent a copy of draft instrument	Proponent requested that definition for 'quarterly' be amended to read as follows: <i>'quarterly' means the 4 inclusive periods from 1 January to 31 March, 1 April to 30 June, 1 July to 30 September and 1 October to 31 December.</i>	Accepted – quarterly periods align with the annual period defined in the licence.

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



7 Appendix A

General Conditions

Hydrocarbon Storage

Emission Description

Emission: Seepage of hydrocarbons to soil or groundwater from leaking bulk fuel facilities.

Impact: Depth to groundwater at the site is approximately 5m below ground level. Groundwater quality in the area varies, with measured salinities ranging from 1,400mg/L to 7,100mg/L. Groundwater generally flows south to north (towards the coast).

Controls: Tanks are contained within concrete bunding compliant with Australian Standard 1940 - storage and handling of flammable and combustible material. Contaminated runoff from the facility is directed via catch basins to an oil/water separator. Fuel unloading facilities are contained on concrete aprons with collection points. Dry breakaway couplings are installed for loading/unloading of fuel. High-level alarms are also present.

All tanks are located above ground and the majority of piping is above ground with two small sections situated below ground. Pipes are constructed so that regular pressure testing of the void between the outer and inner pipes can be undertaken to test the integrity of the inner pipe through the below ground sections.

Daily maintenance checks occur at the facility to identify spills/leaks and maintenance issues and a fuel delivery specialist technician undertakes weekly checks of tanks, pumps, pipes, and fittings. Internal tank integrity inspections are carried out every ten years in accordance with AS1940.

Monitoring results from biannual groundwater monitoring have not recorded the presence of hydrocarbons in groundwater since 2013. Initial samples collected during 2013 at two bores (KFMB05 and KFMB01 – southern bores) indicated the presence of hydrocarbons however investigations identified contamination of the gravel packing and/or a source during the drilling process to be the likely cause. Subsequent monitoring undertaken in 2013 showed a continuous decline in hydrocarbon levels and monitoring since 2013 has not yielded any results of elevated hydrocarbons.

Risk Assessment

Consequence: Minor

Likelihood: Rare.

Risk Rating: Low

Regulatory controls

Storage of environmentally hazardous material is regulated under Dangerous Goods legislation and as such condition 1.2.2 has been removed from the Licence to avoid duplication.

Unauthorised discharges of environmentally hazardous materials are subject to the provisions of the *Environmental Protection (Unauthorised Discharges) Regulations 2004* and as such condition 1.2.3 has been removed from the licence. The general provisions of the *Environmental Protection Act 1986* relating to causing pollution and environmental harm also apply.

Appropriate controls are in place to ensure that groundwater contamination does not occur and as such groundwater monitoring conditions have been removed from the Licence. Should the site become contaminated, contamination is regulated under the *Contaminated Sites Act 2003*.

Residual risk

Consequence: Minor

Likelihood: Rare

Risk Rating: Low



Stormwater

Emission Description

Emission: Stormwater contaminated with hydrocarbons being discharged to the environment.

Impact: Contamination of surrounding land and surface water drainage systems. Minor tributaries to South West Creek are located on the eastern side of the existing rail alignment, within 500m of the Kanyirri Fuel Facility. Depth to groundwater at the Kanyirri Fuel Facility site is approximately 5m below ground level.

Controls: Diesel storage tanks are bunded in accordance with Australia Standard AS1940. Fuel loading and unloading areas are located on concrete aprons with kerbing to contain spills. Spills and stormwater are captured in sumps, and oily water from the bunded tank area, truck unloading facility, fuel wagon loading facility, and pump areas are directed to an oily water treatment system. Treated stormwater is discharged to a lined holding pond.

The oily water system is designed to operate normally up to a 20-year annual recurrence interval (ARI) rainfall event. In the case of a 50 year ARI rainfall event, water collected from within the facility will bypass the oily water treatment system to the oily water holding pond, and any overflow from this pond will be directed directly to the environment. Prior to high rainfall events, the oily water containment area is emptied and oily water treated to minimise the risk of hydrocarbon contaminated water entering the environment. The treated oily water pond would also be emptied to allow for maximum capacity to hold water which has bypassed the treatment system.

Risk Assessment

Consequence: Minor

Likelihood: Unlikely

Risk Rating: Moderate

Regulatory Controls

Guidance Statement: Setting conditions stipulates that licences may be granted subject to conditions that are valid, enforceable and risk-based. General condition 1.2.4 is not considered to be consistent with the Guidance Statement: Setting Conditions as is not sufficiently clear or certain. Accordingly, this condition has been removed from the Licence.

Unauthorised discharges of environmentally hazardous materials are subject to the provisions of the *Environmental Protection (Unauthorised Discharges) Regulations 2004*. The general provisions of the *Environmental Protection Act 1986* relating to causing pollution and environmental harm also apply.

Discharge of treated stormwater via the holding pond is regulated in the Licence under the emissions to land section. No changes to these conditions are proposed as part of this Licence amendment.

Risk Assessment

Consequence: Minor

Likelihood: Unlikely

Risk Rating: Moderate