



**Licence Number** L8454/2010/2

**Licence Holder** Chichester Metals Pty Ltd

**ACN** 109 264 262

**File Number:** 2010/003105

**Premises** Christmas Creek Mine Site  
E46/610, E46/612, M46/320, M46/321, M46/322,  
M46/323, M46/324, M46/325, M46/326, M46/327,  
M46/328, M46/329, M46/330, M46/331, M46/332,  
M46/333, M46/334, M46/335, M46/336, M46/337,  
M46/338, M46/339, M46/340, M46/341, M46/342,  
M46/343, M46/344, M46/345, M46/346, M46/347,  
M46/348, M46/349, M46/350, M46/351, M46/352,  
M46/353, M46/354, M46/355, M46/403, M46/406,  
M46/412, M46/413, M46/414, M46/415, M46/416,  
M46/417, M46/418, M46/419, M46/420, M46/421,  
M46/422, M46/423, M46/424, G46/7, L46/49, L46/56,  
L46/58, L46/86, L46/87, L46/106, L46/111, E46/566  
and L46/66  
MULGA DOWNS WA 6751

**Date of Amendment** 07/08/2020

## Amendment

The Chief Executive Officer (CEO) of the Department of Water and Environmental Regulation (DWER) has amended the above Licence in accordance with section 59 of the *Environmental Protection Act 1986* (EP Act) as set out in this Amendment Report. This Amendment Report constitutes written notice of the amendment in accordance with section 59B(9) of the EP Act.

**ALANA KIDD**

**MANAGER, RESOURCE INDUSTRIES**

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

# 1. Definitions and interpretation

## Definitions

In this Amendment Notice, the terms in Table 1 have the meanings defined.

**Table 1: Definitions**

Term	Definition
AACR	Annual Audit Compliance Report
ACN	Australian Company Number
AER	Annual Environment Report
Amendment Report	refers to this document
Category/ Categories/ Cat.	categories of Prescribed Premises as set out in Schedule 1 of the EP Regulations
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department Administering the <i>Environmental Protection Act 1986</i> Locked Bag 10 Joondalup DC WA 6919 <a href="mailto:info@dwer.wa.gov.au">info@dwer.wa.gov.au</a>
CS Act	<i>Contaminated Sites Act 2003</i> (WA)
Delegated Officer	an officer under section 20 of the EP Act
Department	means the department established under section 35 of the <i>Public Sector Management Act 1994</i> and designated as responsible for the administration of Part V, Division 3 of the EP Act.
DWER	Department of Water and Environmental Regulation
EPA	Environmental Protection Authority
EP Act	<i>Environmental Protection Act 1986</i> (WA)
EP Regulations	<i>Environmental Protection Regulations 1987</i> (WA)
EPBC Act	<i>Environment Protection and Biodiversity Conservation Act 1999</i> (Cth)
Existing Licence	The Licence issued under Part V, Division 3 of the EP Act and in force prior to the commencement of and during this Review
Licence Holder	Chichester Metals Pty Ltd
m <sup>3</sup>	cubic metres

Minister	the Minister responsible for the EP Act and associated regulations
MS	Ministerial Statement
mtpa	million tonnes per annum
NEPM	National Environmental Protection Measure
Noise Regulations	<i>Environmental Protection (Noise) Regulations 1997</i> (WA)
NPI	National Pollutant Inventory
Occupier	has the same meaning given to that term under the EP Act.
OWS	Oily Water Separator
PM	Particulate Matter
PM <sub>10</sub>	used to describe particulate matter that is smaller than 10 microns (µm) in diameter.
Prescribed Premises	has the same meaning given to that term under the EP Act.
Premises	refers to the premises to which this Decision Report applies, as specified at the front of this Decision Report.
Risk Event	as described in <i>Guidance Statement: Risk Assessment</i>
RO	Reverse Osmosis
TDS	Total Dissolved Solids
TRH	Total Recoverable Hydrocarbons
UDR	<i>Environmental Protection (Unauthorised Discharges) Regulations 2004</i> (WA)
µg/m <sup>3</sup>	micrograms per cubic metre
µg/L	micrograms per litre

## 2. Amendment Report

This amendment is made pursuant to section 59 of the *Environmental Protection Act 1986* (EP Act) to amend the Licence issued under the EP Act for a prescribed premises as set out below. This amendment is given under section 59B(9) of the EP Act. This report is limited only to an amendment for Category 6 and Category 52.

The following guidance statements have informed the decision made on this amendment:

- *Guidance Statement: Regulatory Principles (July 2015);*
- *Guidance Statement: Setting Conditions (October 2015);*
- *Guidance Statement: Land Use Planning (February 2017);*
- *Guidance Statement: Licence Duration (August 2016);*
- *Guidance Statement: Decision Making (June 2019);*
- *Guidance Statement: Risk Assessment (February 2017); and*
- *Guidance Statement: Environmental Siting (November 2016).*

### 2.1. Amendment description

#### Increase electrical generation capacity

The existing generators approved to service the V-WHIMS (5 x Caterpillar XQ2000 IPP), described in the previous amendment (issued 30/01/2020) have a greater capacity than that described in the previous amendment application. Lower figures previously provided were due to the de-rating (reduced capacity) with hotter ambient conditions. With favourable ambient conditions the units are capable of producing 1.6 MW, rather than the 1.4 MW approved in the previous application. The Applicant proposes to increase the licensed capacity of each unit to allow for potential higher capacity in MW under more favourable ambient conditions.

The Applicant has identified that an additional generator (A33) is required to support the V-WHIMS, bringing the total number of generators supporting this system to six. This will increase the total number of generators on site to 33 and the total generation capacity under Category 52 will increase to 63.6 MW. The additional generator will be identical to those already approved for V-WHIMS support (A28 - A32), a Caterpillar XQ2000 IPP.

Each generator will have an exhaust, with key emissions will be by-products of diesel combustion being particulates (PM), carbon monoxide (CO), sulphur dioxide (SO<sub>x</sub>) and oxides of nitrogen (NO<sub>x</sub>).

The Applicant assessed emissions outputs of the generator using NPI methodology, and highest possible fuel consumption maximum annual emissions have been calculated per unit, per year, these are compared to 18-19 NPI reported figures from the site. In comparison to overall site emissions, the maximum emissions from these generators is low as outlined in Table 2.

**Table 2: Estimated emissions from the proposed generator**

Analytes	Annual Emissions (kg)	Total 18-19 Site NPI Emissions (kg)	As a Percentage of 18-19 Site NPI Emissions
PM <sub>2.5</sub>	5,120	270,367	1.89%
PM <sub>10</sub>	5,248	24,042,264	0.02%
Oxides of nitrogen (NO <sub>x</sub> )	99,841	4,954,752	2.01%
Carbon monoxide (CO)	44,800	2,604,690	1.72%
Oxides of sulphur (SO <sub>x</sub> )	53	3,162	1.67%
VOC	4,224	264,438	1.59%

Table 3 below outlines the proposed changes to the Licence.

**Table 3: Proposed design capacity changes**

Category	Current design capacity	Proposed design capacity	Description of proposed amendment
52: Electric Power Generation	61 MWe	Increase of 2.6 MWe	Total to 63.6 MWe

The Applicant also proposes to relocate the power generation infrastructure that supports the V-WHIMS, to a location closer to the existing power station location. These locations are within existing disturbed ground, in close proximity to the current locations of generators A1-A27.

#### Drill and commission new groundwater emission points

The Applicant is proposing the creation of five new groundwater emission points (SAI38, SAI39, SAI40, SAI41 and SAI42) to cover the proposed expansion of the re-injection network at Christmas Creek.

At Christmas Creek, groundwater abstraction is undertaken to enable below water table mining and for mine site water supply. Abstracted groundwater is used for general mine site purposes including dust suppression, construction, ore processing and camp water supply; with surplus water returned via injection back to suitable aquifers.

Current licensed capacity under Category 6: Mine dewatering is 43,000,000 tonnes per Annual Period (injected). It is predicted an additional 200 L/s of injection capacity is required to support planned dewatering increases to the east of Cloudbreak mine and west of Christmas Creek mine. In the 2019 reporting period, a total of 19,220 ML was reinjected, which is 45% of the Category 6 capacity. The requested increase does not impact the overall Category 6 capacity of 43,000,000 tonnes.

There will be a small amount of clearing/vegetation disturbance associated with the development of the five new proposed saline injection bores but this clearing/disturbance will be managed within the clearing limits defined in MS 1033.

Abstracted water will be source from the nearby Long and proposed Forrest dewatering borefields. Abstracted water is transferred to saline transfer ponds prior to injection into the aquifer.

The pipeline servicing the new injection bores will be managed in accordance with the existing pipeline network. A leak detection system is in place and daily visual inspections are undertaken to identify any potential water leaks.

#### Additional emission to land point from power station pond

Two emission points are currently included within the Licence, L1 – Karntama irrigation area and L2 – Construction Camp irrigation area. The Applicant proposes the addition of a new emission to land point from the power station pond, which is currently listed as a storage pond, to allow for discharge during high rainfall events.

Under the current licence, potentially contaminated stormwater from the power station and bulk diesel storage facility bunds is diverted and treated through an oily water separator into the existing power station pond listed in the licence in Table 1.2.1: Containment Infrastructure.

This pond includes a minimum vertical freeboard requirement of 200 mm, with no outflow other than an existing rock drop overflow to allow water to overflow into drainage infrastructure connected to the TLO Settlement Pond.

The Applicant has identified that during periods of high rainfall there may be insufficient pond capacity to maintain the required 200 mm vertical freeboard requirement from the Power Station Pond as inflow (storm water) cannot be controlled and there is no alternative outflow.

The freeboard requirement at the TLO Settlement Pond is maintained via a pump system that pumps water back to the OPF dust suppression system. The pump can be operated in manual and automatic mode. The TLO Settlement Pond is an earthen pond with a 100 mm freeboard requirement as per Condition 1.2.2, Table 1.2.1 of the licence. The capacity is estimated to be 18,000 m<sup>3</sup>.

A new emissions to land discharge point is proposed (L3), for the discharge of oily water from the water separator (Figure 1). The discharge point is a gravity fed overflow from the pond through a low point in the southern embankment wall. Rock armouring is present at the overflow point to prevent erosion of the embankment wall. The water is then directed into a diversion channel that flows into the TLO Settlement Pond. The 200 mm freeboard requirement for the Power Station Pond is to be removed.

The Applicant will conduct quarterly monitoring for TRH from L3 emission point to land.

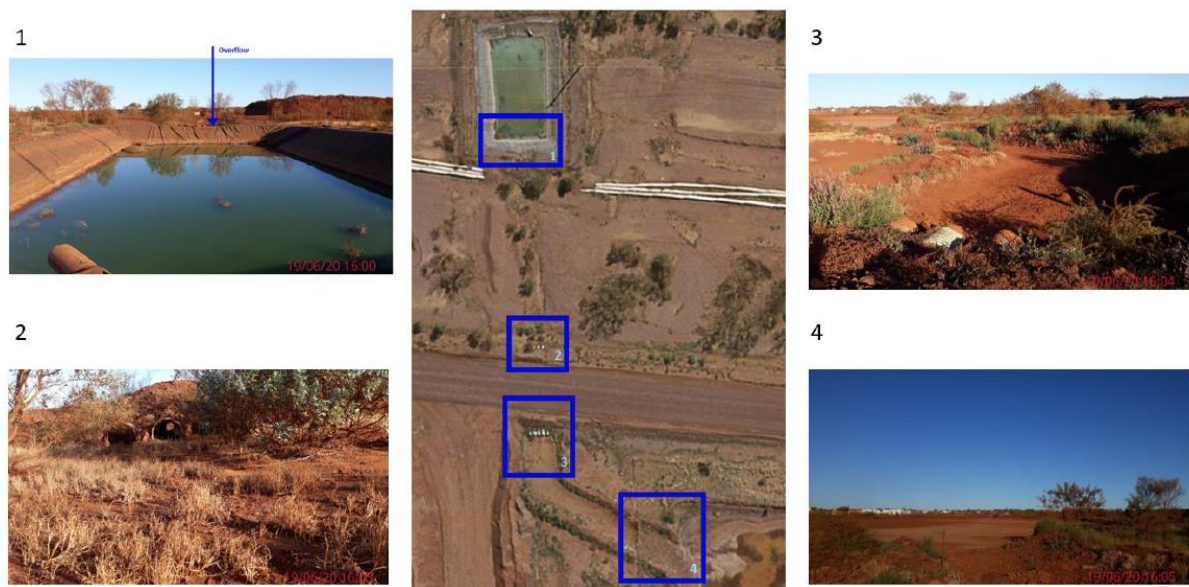


Figure 1 – New proposed L3 emission point to land

### Changes to reference nomenclature and mapping

The Applicant proposes to make the following administrative changes to the Licence to reflect current mine operations:

- Renaming of contingency discharge point to surface water DP11 to CCDP04 in the Christmas Creek licence to avoid confusion with a discharge point at another site with the same name; and
- Renaming sample point CCSP001 to CCSP0001, to align with internal naming conventions.

The update of several maps which are appended to the licence in order to reflect the most recent information regarding Christmas Creek infrastructure and operations. Mapping changes include:

- Removal of page 38 map as the Flinders In-Pit TSF complex has been constructed, with the final compliance document was submitted 20th of November 2019;
- Update of page 42 map with Figure 6 to reflect current operations with regard to tyre disposal locations and mine pit zones; and
- Update of page 46 map with Figure 7 to show the new Windich monitoring bore (WDM18), which was replaced for WDM26 in the previous licence amendment.

### Changes to containment infrastructure

The Applicant proposes to remove references to Erin Turkey's Nest and M16, as these have both been decommissioned. Remote Crushing Hub 2 Evaporation Pond (RCH2) is utilised as an evaporation pond and drying pad and is not a water storage facility. There is no designated inflow or outflow from this facility.

## 3. Other approvals

The Licence Holder has provided the following information relating to other approvals as outlined in Table 4.

**Table 4: Relevant approvals**

Legislation	Number	Approval
<i>EP Act 1986 – Part IV</i>	MS 1033	The Christmas Creek Iron Ore Mine Expansion, approved 8/08/2016, to allow the expansion of the existing mining footprint, permanent waste landforms, tailings disposal, conveyors, roads, drainage and other associated mine infrastructure.
<i>Iron Ore (FMG Chichester Pty Ltd) Agreement Act 2006</i>	--	The Premises is subject to the <i>Iron Ore (FMG Chichester Pty Ltd) Agreement Act 2006</i> , which ratifies and authorises the development of mining of iron ore by the licence holder within a defined area of the Chichester Ranges, and defines the assistance to be provided by the State government. The Department of Jobs, Tourism, Science and Innovation is responsible for administering this Act.
<i>EPBC Act</i>	EPBC 2013/7055	On 13 November 2013, the Christmas Creek Iron Ore Mine Expansion project was determined to be a controlled action under the EPBC Act due to potential impact on Matters of National Environmental Significance; listed threatened species and communities, and listed migratory species. The proposal was assessed according to the Bilateral Agreement between the Commonwealth and Western Australian governments. The Christmas Creek Iron Ore Mine Expansion was approved under the EPBC Act on 3 January 2017 (EPBC 2013/7055).



<i>Rights in Water and Irrigation Act 1914</i>	-	Christmas Creek Groundwater Operating Strategy (CC-PH-HY-0002, Revision 6, April 2016).
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## 4. Amendment history

Table 5 provides the amendment history for L8454/2010/2.

**Table 5: Licence amendments**

Instrument	Issued	Amendment
L8454/2010/2	7/7/2016	Licence amendment for approval to construction the Flinders Strip 12 In-Pit TSF, Windich Above-Ground TSF and the Karntama Village WWTP sludge handling unit, update prescribed premises boundary, increase category 73 approved design capacity, replace category 89 with category 64, inclusion of conditions for the reinjection of mine dewater and removal of requirement to implement the Water Management Scheme, and inclusion of a 2 MW Caterpillar C175 generator as an emission point to air
L8454/2010/2	28/02/2017	Amendment Notice 1 Approval to construct and operate the Flinders In-Pit TSF (below water table tailings deposition), update the Vasse and Windich TSF groundwater monitoring requirements, changes to the requirements for controls on sewage pipelines, update the containment infrastructure requirements, changes to the used tyre storage requirements and include total dissolved solids in the WWTP monitoring suite
L8454/2010/2	14/07/2017	Licence amendment to update the containment infrastructure requirements in Table 1.2.1, include a provision in Table 1.2.3 to allow clean fill to be used as cover material, remove reference to the Mobile Crushing and Screening Environmental Management Procedure, remove reference to infrastructure which has been constructed, removal of the Flinders In-Pit TSF deposition limit, removal of the air emission monitoring requirements
L8454/2010/2	16/07/2018	Licence amendment to combine the two existing TSFs at Flinders, being the Flinders Strip 12 TSF and the Flinders In-Pit TSF into one consolidated landform (Flinders In-Pit TSF Complex); reduce the capacity of category 52 from 56 MW to 54 MW; update condition 1.2.1 to include the high risk saline pipelines; remove condition 1.2.11; update condition 4.3.1 to remove reference to the leak detection system; and remove the pipeline sample CCSP0011 and include CCSP0024
L8454/2010/2	15/01/2019	Licence amendment to allow the disposal of reverse osmosis reject water to be discharged to the existing Construction Camp irrigation area; construction of the Lefroy Turkey's Nest; and installation and operation of 11 saline injection bores
L8454/2010/2	30/01/2020	Licence amendment to include alterations at the processing plant, increase the capacity of the power station, install an additional Reverse Osmosis plant, make changes to the groundwater monitoring at the tailings storage facility, and alter the operational requirements at the Ruby Turkey Nest.
L8454/2010/2	7/08/2020	Licence amendment for installation of a new 1600kW Diesel Generator,



		increase in capacity of 5 existing generators (1600kW), construction of five additional saline injection bores and addition of a new emission to land point (L3). Minor administrative amendments to mapping and terminology within Licence.
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## 5. Location and receptors

Table 6 below lists the relevant sensitive land uses in the vicinity of the Prescribed Premises which may be receptors relevant to the proposed amendment.

**Table 6: Receptors and distance from activity boundary**

Residential and sensitive premises	Distance from Prescribed Premises
Construction camp and Operations camp	These camps are located within the prescribed premise boundary. Potential impacts of mine operations on these areas are governed by health and safety legislation and as such these are screened out as a sensitive premise.
Townsites and Homesteads	Nullagine is the nearest town, located over 60 km away from the prescribed premise boundary. Screened out as sufficient distance to avoid potential impacts. Roy Hill Station is located 30 km away. Marillana Homestead is located more than 40 km away. Screened out due to sufficient distance from emission premises.

Table 7 below lists the relevant environmental receptors in the vicinity of the Prescribed Premises which may be receptors relevant to the proposed amendment.

**Table 7: Environmental receptors and distance from activity boundary**

Environmental receptors	Distance from Prescribed Premises
Surface water	The premises are situated approximately 1 km from the boundary of Fortescue Marsh. Fortescue Marsh is a nationally important and the largest ephemeral wetland in the Pilbara region, a Priority Ecological Community, and is listed on the Directory of Important Wetlands of Australia as a wetland of national significance.
Flora and Vegetation	There are no Threatened flora species listed under the <i>Environment Protection and Biodiversity Conservation Act 1999</i> (EPBC Act) or Declared Rare Flora (DRF) listed under the <i>Biodiversity Conservation Act 2016</i> (BC Act) recorded within the premises boundary.  Groundwater sensitive vegetation within or near the premises includes Mulga, Samphire and Coolibah / River Red Gum.
Livestock bores	Three livestock bores are located within the premises boundary, 22 Mile Bore, Rick's Bore and Gorge Bore. A fourth bore is over 3 km outside of the premises.
Groundwater	Groundwater in the project area is generally brackish (>1,000 mg/L TDS) and becomes increasingly saline towards the Fortescue Marsh and with depth (>100,000 mg/L TDS).  The Premises sits over three main connected aquifers, the fresh-brackish Tertiary Detritals, brackish Marra Mamba formation and the hypersaline

	Oakover formation. The Oakover Formation is approximately 20 m thick and is confined to semi-confined by overlying clays and silts. Current injection at Christmas Creek has confirmed hydraulic disconnection between the Oakover Formation and overlying watertable. To the south of the premises, the MMF is overlain by Alluvial Clays and Tertiary Detritals consisting of layers of clays, silts and minor sandy gravels.
Fauna	Significant fauna identified a potentially occurring within the premises are the Northern Quoll, Night Parrot and Greater Bilby, Pilbara Leaf-nosed Bat and Pilbara Olive Python. Screened out as the proposed amendment is not expected to alter the risks to fauna species outside that addressed within MS 1033.

## 6. Risk assessment

Tables 8 and 9 below describe the Risk Events associated with the amendment consistent with the *Guidance Statement: Risk Assessments*. Both tables identify whether the emissions present a material risk to public health or the environment, requiring regulatory controls.

**Table 8: Risk assessment for proposed amendments during construction**

Risk Event						Consequence rating	Likelihood rating	Risk	Reasoning
Source/Activities		Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts				
Cat 6 new saline bores construction and Cat 52 new discharge location works and generator installation.	Construction of additional infrastructure	<b>Dust:</b> associated with drilling and construction activities	Vegetation	Transport through air	N/A	Slight	Possible	Low	Short term elevated dust from drilling and construction is unlikely to be significant due to background dust levels within the premises associated with mining activities.
		<b>Noise</b> Associated with drilling and construction activities.	N/A	Airborne	N/A	Slight	Rare	Low	No sensitive receptors are in proximity to the premises.

**Table 9: Risk assessment for proposed amendments during operation**

Risk Event						Consequence rating	Likelihood rating	Risk	Reasoning
Source/Activities		Potential emissions	Potential receptors	Potential pathway	Potential adverse impacts				
Cat 6 Mine dewatering: premises on which water is extracted and discharged into the environment to allow mining of ore.	Five additional re-injection network bores	Water: Saline Water	Oakover aquifer  Groundwater dependent vegetation	Groundwater	N/A	Minor	Unlikely	Medium	<p>The Applicant anticipates that there will be no additional/different impacts on native vegetation as a result of the additional saline water that is proposed to be injected into the Oakover aquifer. Injection activities are currently approved under MS 1033.</p> <p>Modelling provided by the Applicant to date for the existing saline injection system shows that there are no adverse impacts on the aquifer and/or groundwater dependent vegetation from injection activities. The new bores are at the north-western extent of the premises, between the brackish injection borefield and existing saline injection bores.</p> <p>Conditions 6-1 and 7-1 in Ministerial Statement</p>

									<p>871 contain thresholds for groundwater levels, to protect Mulga and Samphire. Condition 7 is imposed to maintain the health Mulga, Samphire and Coolibah/River Red Gum vegetation (including a plan that addresses impacts from changes to groundwater levels and quality, and changes to surface flows); and Condition 10 is imposed which includes a monitoring framework for groundwater levels and groundwater quality post-mining once dewatering and injection ceases.</p> <p>Condition 1.2.9, Table 1.2.6 has been updated to include the new saline reinjection bores.</p> <p>Condition 2.3.1, Table 2.3.1 has been updated to include the new saline reinjection bores.</p> <p>Condition 3.3.1, Table 3.3.1 has monitoring requirements for saline reinjection water to groundwater, which includes the new saline reinjection bores.</p>
	Operation of pipelines	Water: Saline Water	Soil Fortescue Marsh	Spill to ground	Spill of saline water direct to ground in the event of a leak or rupture. Can alter soil composition or composition of surface water runoff.	Moderate	Unlikely	Medium	<p>The Applicant will manage the pipelines servicing the new injection bores in accordance with the existing pipeline network. An existing leak detection system is in place and daily visual inspections are undertaken to identify any potential water leaks.</p> <p>The Applicant is required to comply with the requirements of Licence Condition 1.2.1 and 1.2.3 with regards to telemetry, automatic cut-outs and secondary containment.</p> <p>The Applicant is required to comply with the requirements of Licence Condition 1.2.3, Table 1.2.2 for saline water infrastructure daily visual integrity inspections.</p>
<b>Cat 52</b> <i>Electric power generation; premises (other than premises within category</i>	New emission to land discharge location L3 – Power station	Stormwater overflow of treated oily and saline water	Soil Fortescue Marsh	Surface water runoff from emission point	Contamination of surface water and groundwater may impact water sensitive vegetation	Moderate	Unlikely	Medium	<p>The proposed L3 emission point to land is located more than 1 km from the Fortescue Marsh boundary. The gravity overflow will discharge into existing drainage lines, which drain into the TLO Settlement Pond.</p>

53 or an emergency or standby power generating plant) on which electrical power is generated using a fuel.	treated water pond				including Mulga, Samphire and Coolibah / River Red Gum.				<p>The TLO Settlement Pond is an earthen pond with a 100 mm freeboard requirement as per Condition 1.2.2, Table 1.2.1 of the licence. The capacity is estimated to be 18,000 m<sup>3</sup>. Discharge is unlikely to occur unless during a significant rainfall event. Discharged water will be low salinity and have been treated via an OWS, with discharge away from natural drainage lines.</p> <p>Condition 2.4.2, Table 2.4.2 included for TRH limit of 15 mg/L from L3 emission point to land.</p> <p>Condition 3.4.1, Table 3.4.1 updated to include TRH quarterly monitoring with requirements following limit exceedances.</p> <p>Condition 1.2.2, Table 1.2.1 has been updated to remove the 200mm freeboard on the Power Station Pond.</p> <p>Condition 2.4.1, Table 2.4.1 has been updated to include L3 emission point to land.</p> <p>Condition 3.4.1, Table 3.4.1 updated to include TRH monitoring at L3 emission point to land.</p>
	Increase of electrical generation capacity of existing generators, and installation of an additional generator.	By products of diesel combustion being particulates (PM), carbon monoxide (CO), sulfur dioxide (SOx) and oxides of nitrogen (NOx).	Marillana Homestead	Direct to air	Contribution to greenhouse gas emissions	Minor	Likely	Medium	<p>The Licence Holder has not provided revised modelling data however the increase in power generation capacity at the premises is not expected to significantly change the emissions profile during normal operations given the separation distance from sensitive receptors. The NEPM criteria is expected to be met during normal operations.</p> <p>Emissions of Nox, CO and PM are expected to be very low as a percentage of current emissions on the premises.</p> <p>See Table 2 Estimated emissions from the proposed generator as a percentage of 18-19 Site NPI Emissions.</p> <p>Condition 1.2.8, Table 1.2.5 has been updated</p>

									for the increased production or design capacity limits.
		Direct discharge to land – TRH / Diesel fuel	Fortescue Marsh Vegetation Surface water	Spills to ground, stormwater runoff over spill contaminated ground.	Contamination of soil and/or surface water	Moderate	Unlikely	Medium	Condition 2.1.1, Table 2.1.1 updated to the diesel generators sizing. The generator to be installed and the other five approved units supporting the V-WHIMS are designed so as to be banded to 110% of internal storage capacity, minimizing the risk of liquid spills and impacts to surface water. The Applicant will maintain suitable spill kits nearby to manage any spills from the generators.



## 7. Consultation

**Table 8: Summary of consultation**

Method	Comments received	DWER response
Email	Comments on the application were invited from the Department of Mines Industry Regulation and Safety (DMIRS) on 16 May 2020	No comments received
Email	Draft documents provided to the Applicant on 24 July 2020 and comments from Applicant received on 29 July 2020	See Appendix 2

## 8. Conclusion

Based on the assessment in this Amendment Report, the Delegated Officer has determined that licence amendment will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

### 8.1. Summary of amendments

Table 9 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the revised Licence as part of the amendment process.

Condition No.	Proposed amendments
Prescribed premises category description	Changed 61 Mwe to 63.6 Mwe
Condition 1.2.2, Table 1.2.1	Table 1.2.1 amended to remove Remote Crushing Hub 2 Evaporation Pond, M16, Erin Turkey's Nest and freeboard requirement of the Power Station Pond
Condition 1.2.8, Table 1.2.5:	Changed 61 Mwe to 63.6 Mwe
Condition 1.2.9, Table 1.2.6	Included 5 new saline injection bores and amended total number of bores to 15 – correction from previous licence where the total was listed as 11 rather than 10.  Increase of number and output of generators. Amended map reference title. Changed 61 Mwe to 63.6 Mwe
Condition 1.2.10	Removal of Lefroy Turkey's Nest as the final compliance document was submitted on 3 May 2019 ref: 2010/003105-4. The Lefroy Turkey's Nest is constructed.
Condition 1.2.11	Updated to new referencing of the ANZECC/ARMCANZ NWQMS, Australian and New Zealand Guidelines for Fresh and Marine Water Quality, Livestock drinking water quality
Condition 2.1.1, Table 2.1.1	Change A32 to A33. Change 5 x 1400 kW to 6 x 1600 kW
Condition 2.2.1,	Replaced DP11 (W1) with CCDP04 (W1)

Table 2.2.1	
Condition 2.3.1, Table 2.3.1	Inclusion of five new saline bore references <b><u>SAI38, SAI39, SAI40, SAI41, SAI42</u></b>
Condition 2.4.1, Table 2.4.1	Addition of L3 emission point to land
Conditions 3.1.2, 3.1.3, 3.1.4	Conditions updated to new standardized wording
Table 3.2.1	Replaced DP11 (W1) with CCDP04 (W1). Replaced CCSP001 with CCSP0001.
Condition 3.4.1 Table 3.4.1	Updated to include TRH quarterly monitoring with requirements following limit exceedances.
Conditions 4.1.1, 4.1.2, 4.1.4, 4.2.1	Conditions updated to new standardized wording
Condition 4.2.1, Table 4.2.1	Updated to include L3 emission point to land sampling.
Schedule 1 Maps	Replacement of maps
	Amendment of wording to reflect that V-WHIMS Plant is approved and that mapping does not show Diesel Generator Sets <b>Map showing location of proposed V-WHIMS Plant</b>

## Appendix 1: Key documents

	Document title	In text ref	Availability
1	L8454/2010/2 - Christmas Creek Mine Site	L8454/2010/2	accessed at <a href="http://www.dwer.wa.gov.au">www.dwer.wa.gov.au</a>
2	Application Supporting Document provided by Applicant dated March 2020	-	DWERDT266763
3	Christmas Creek Iron Ore Mine Expansion Public Environmental Review – March 2015	-	accessed at <a href="http://www.epa.wa.gov.au/">www.epa.wa.gov.au/</a>
4	Ministerial Statement 1033	MS 1033	accessed at <a href="http://www.epa.wa.gov.au/">www.epa.wa.gov.au/</a>
5	EPA Report and recommendations Christmas Creek Iron Ore Mine Expansion – May 2016	EPA 2016	
6	DER, July 2015. Guidance Statement: Regulatory principles. Department of Environment Regulation, Perth.	N/A	accessed at <a href="http://www.dwer.wa.gov.au">www.dwer.wa.gov.au</a>
7	DER, October 2015. Guidance Statement: Setting conditions. Department of Environment Regulation, Perth.	N/A	
8	DER, August 2016. Guidance Statement: Licence duration. Department of Environment Regulation, Perth.	N/A	
9	DER, November 2016. Guidance Statement: Risk Assessments. Department of Environment Regulation, Perth.	N/A	
10	DER, November 2016. Guidance Statement: Decision Making. Department of Environment Regulation, Perth.	N/A	
11	Email titled “Christmas Creek Mine Part V Licence amendment (L8454/2010/2) Submission” dated 25/03/2020 3:39pm and authored by Fortescue Metals Group Ltd	N/A	DWER records (DWERDT266763)
12	RFI Application for an Amendment to Licence (L8454) Under the <i>Environmental Protection Act 1986</i> – Provision of Further Information dated 29 June 2020 and authored by Fortescue Metals Group Ltd	N/A	DWER records (A1913366)

## Appendix 2: Summary of Licence Holder comments

The Licence Holder was provided with the draft Amendment Report on 24 July 2020 for review and comment. The Licence Holder responded on 29 July 2020 waiving the remaining comment period and providing the following comments.

Condition	Summary of Licence Holder comment	DWER response
Condition 1.2.6, Table 1.2.9 Infrastructure requirements	Remove SAI10A, SAI29, SAI30, SAI31 and SAI32 saline injections bores from the construction infrastructure requirements table as these bores have been installed and commissioned	Updated as requested
Condition 2.3.1, Table 2.3.1 Emissions to groundwater	Change in numbers of saline injection bores from the previous numbering SRP213-217 to new numbering SAI38-42	Updated as requested
Condition 3.4.1, Table 3.4.1 Monitoring of emissions to land	There is no timeframe for how long the discharge must cease in the proposed wording and requests that the discharge will cease "until such time as the trigger is no longer exceeded"	Updated as requested
Condition 4.2.1, Table 4.2.1 Annual Environmental Report	Proposed wording seems to be cut off and it is unclear what the "representative" wording is referring to	Updated as requested