



Application for Works Approval Amendment

Part V Division 3 of the *Environmental Protection Act 1986*

Works Approval Number	W6427/2020/1
Works Approval Holder	Fremantle Port Authority
File Number	DER2020/000324
Premises	Kwinana Bulk Terminal Riseley Road, NAVAL BASE WA 6165 Legal description Lot 452 on Deposited Plan 220690, Part of Lot 11 on Deposited Plan 39572 and Lot A within Lot 251 and Lot C within Lot 250 on Deposited Plan 415974
Date of Report	14 July 2022
Decision	Revised works approval granted

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

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1. Decision summary

Works Approval W6427/2020/1 is held by Fremantle Port Authority (Works Approval Holder) for the Kwinana Bulk Terminal (the Premises).

This Amendment Report documents the assessment of potential risks to the environment and public health from proposed changes to the emissions and discharges during the construction and operation of the Premises. As a result of this assessment, Revised Works Approval W6427/2020/1 has been granted.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this Amendment Report, the department has considered and given due regard to its Regulatory Framework and relevant policy documents which are available at <https://dwer.wa.gov.au/regulatory-documents>.

2.2 Application summary

On 12 April 2022, the Works Approval Holder applied to the department to amend Works Approval W6427/2020/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The following amendments are being sought:

- changes in infrastructure and layout of the Cement Clinker Import Circuit design.
 - change to the conveyor cover design from ‘top and side wind shields’ to Gough all-weather roof style ‘top wind shields’.
 - a reduction in the number of transfer towers (three to two).
 - the replacement of the storage shed with an import storage dome, and
 - increased storage capacity at the truck loadout facility (from 110 to 200 tonnes).
- change to Condition 2 which requires submission of an Environmental Compliance Report (ECR).

This amendment is limited only to changes to infrastructure in W6427/2020/1. No changes to the aspects of the existing Works Approval relating to the capacity of Category 58 or 58A have been requested by the Works Approval Holder.

2.3 Proposed amendment to infrastructure

The amended cement clinker import circuit will continue to tie into the existing IC01 conveyor, which accepts cement clinker from AL05 ship unloader, jetty conveyor JC01 and transfer tower 1. The circuit is proposed to consist of four conveyors, two transfer stations, one import storage dome and one truck load out facility.

From W6427/2020/1, the main change is the removal of transfer tower CC01/EC01, and the planned upgrade of EC01. The Works Approval Holder now propose to run conveyor CC01 from transfer tower T12 through to import storage dome transfer tower T14, reducing the number of transfer towers by 1, and no longer requiring the upgrade of conveyor EC01.

The original storage shed is now to be a fully enclosed import storage dome with the same capacity of 40,000 tonnes, and the storage capacity of the truck loadout system is increasing from 110 tonnes to 200 tonnes, refer to Figure 1.

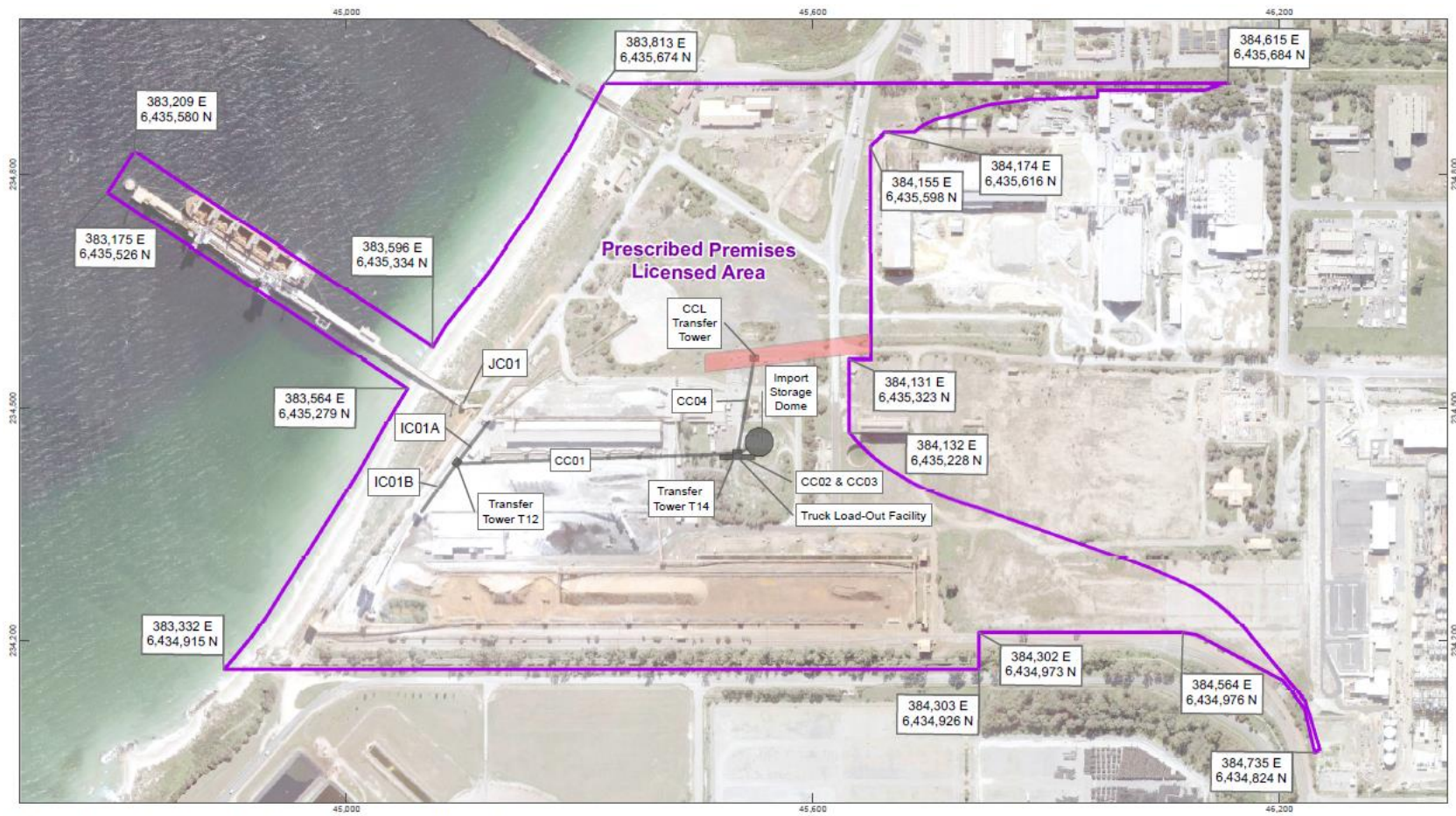
As previously assessed in W6427/2020/1, granulated slag imports will follow the same process flow as described for cement clinker above but will bypass the import storage dome and be transported along CC04 to the Cockburn Cement's (CCL) transfer station in CCL's leased area.

BGC's granulated slag will follow the existing import circuit route and be stored in the existing granulated slag stockpile (i.e., not associated with the new infrastructure).

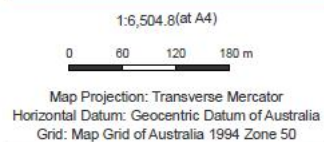
2.4 Proposed change to Environmental Compliance Reporting

In addition to changes in design, the Works Approval Holder also requests a change to Condition 2 which requires submission of an Environmental Compliance Report (ECR) to be submitted following construction of an item of infrastructure. The Works Approval Holder would like to submit a ECR once all infrastructure items have been constructed.

The Works Approval does not authorise commissioning or operation, and the Delegated Officer understands that sections of infrastructure will be constructed in stages. The Delegated Officer does not consider that allowing the Works Approval Holder to submit a single ECR for all infrastructure and equipment listed in W6427/2020/1 increases environmental risk. It is also noted to likely reduce the regulatory reporting burden on the Works Approval Holder. The Delegated Officer has agreed to make this change in the amended works approval.



FPA Infrastructure Upgrade & Cockburn Cement Lease Area



- Legend
- Premise Boundary
 - Cockburn Cement lease
 - FPA Infrastructure Upgrade



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Figure 1: Amended location and detail of proposed upgraded infrastructure

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3. Risk assessment

The department assesses the risks of emissions from prescribed premises and identifies the potential source, pathway, and impact to receptors in accordance with the *Guideline: Risk assessments* (DWER 2020).

To establish a Risk Event there must be an emission, a receptor which may be exposed to that emission through an identified actual or likely pathway, and a potential adverse effect to the receptor from exposure to that emission.

3.1 Source-pathways and receptors

3.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises construction which have been considered in this Amendment Report are detailed in Table 1 below. Table 1 also details the proposed control measures the Works Approval Holder has proposed to assist in controlling these emissions, where necessary.

Table 1: Works Approval Holder controls

Emission	Sources	Potential pathways	Proposed controls
Dust	<p>Construction work of circuit including vehicle movement</p> <p>Product movement through transfer & conveyors (cement clinker, granulated slag)</p> <p>Product handling at truck load out station, storage shed (cement clinker, granulated slag)</p> <p>Truck movements</p>	Air/windborne pathway	<ul style="list-style-type: none"> Sweeper trucks to remove dust, spilt and accumulated material from all trafficable areas within prescribed premises Water cart onsite and operational to wet all trafficable areas Long distance of construction and operational area from sensitive receptors Inspected by on-site personnel Total suspended particles (TSP) boundary dust monitoring network and reporting in accordance with L4476/1984/12 Real-time dust alarms on TSP boundary dust monitors in accordance with L4476/1984/12 Construction Environmental Management Plan to be provided by contractor and approved by Fremantle Ports prior to works commencing Transfer stations and import storage dome will be fully enclosed, and the conveyors covered with Gough all-weather roof style 'top wind shields' Dust extraction units on truck load out station Dust collectors will be installed on transfer stations, the import storage

Emission	Sources	Potential pathways	Proposed controls
			dome and truck load out facility. <ul style="list-style-type: none"> Reclaim conveyor (CC03) in enclosed import storage dome collects dust via gravity downdraw Truck load out station building will be enclosed KBT Dust Management Strategy including operational response to dust alarm Granulated slag has a high moisture content (4-6%) therefore dust emissions are unlikely to occur.
Noise			<ul style="list-style-type: none"> Long distance of operations from the nearest sensitive receptors Complaints management system in place OHS and premises noise limits and personnel noise monitoring program
Surface water runoff	Contaminated stormwater	Direct discharge	<ul style="list-style-type: none"> Site stormwater drainage network (no direct discharge to Cockburn sound). EC04 pad drains to Area D stormwater infiltration basin Stormwater drainage network inspected by licensee personnel Annual water quality monitoring of Cockburn Sound as per Licence

3.1.2 Receptors

In accordance with the *Guideline: Risk assessments* (DWER 2020), the Delegated Officer has excluded employees, visitors, and contractors of the Works Approval Holder's from its assessment. Protection of these parties often involves different exposure risks and prevention strategies and is provided for under other state legislation.

Table 2 below provides a summary of potential human and environmental receptors that may be impacted because of activities upon or emission and discharges from the prescribed premises (*Guideline: Environmental siting* (DWER 2020)).

Table 2: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	Distance from prescribed activity
Closest residential receptor	3,130 m to the south-east
Closest industrial receptor	600 m to the north-east
Environmental receptors	Distance from prescribed activity

Cockburn Sound	Within and directly adjacent to the premises
Groundwater area proclaimed under Rights in Water Irrigation Act 1914	<p>Lies within and surrounded by Cockburn Groundwater Area Groundwater monitoring (2007) resulted in Contaminated site – restrictive use classification.</p> <p>One groundwater bore on site:</p> <ul style="list-style-type: none"> • GWL170950(3) - Fremantle Ports Authority for dust suppression for earthworks and construction purposes (40,000 kL) (DWERDT170950)

3.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for those emission sources which are proposed to change and considers potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are in-complete they have not been considered further in the risk assessment.

Where the Works Approval Holder has proposed mitigation measures/controls (as detailed in Section 3.1), these have been considered when determining the final risk rating. Where the Delegated Officer considers the Works Approval Holder's proposed controls to be critical to maintaining an acceptable level of risk, these will be incorporated into the works approval as regulatory controls.

Additional regulatory controls may be imposed where the Works Approval Holder's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 3.

The Revised Works Approval W6427/2020/1 that accompanies this Amendment Report authorises construction only. The conditions in the Revised Works Approval have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

An amendment to Works Approval W6427/2020/1 or Licence L4476/1984/12 is required following the construction authorised under the works approval to authorise emissions associated with the commissioning and ongoing operation of the new infrastructure i.e., bulk materials loading and unloading activities. A risk assessment for the operational phase has been included in this Amendment Report, however licence conditions will not be finalised until the department assesses the works approval or licence amendment application.

Table 3. Risk assessment of potential emissions and discharges from the Premises during construction and operation

Risk Event					Risk rating ¹ C = consequence L = likelihood	Works Approval Holder's controls sufficient?	Conditions ² of works approval	Justification for additional regulatory controls
Source/Activities	Potential emission	Potential pathways and impact	Receptors	Works Approval Holder's controls				
Construction								
Construction of cement clinker import circuit, including vehicle movements	Dust	Air/windborne pathway causing impacts to health and amenity	Residences about 3 km from premises, and industrial office about 600 m	Refer to Section 3.1.1	C = Moderate L = Unlikely Medium Risk	Y	Condition 1 <u>Condition 2 and 3</u>	Standard construction conditions, and conditions related to compliance reporting apply.
	Noise				C = Minor L = Rare Low Risk	Y	N/A	N/A
Operation								
Product movement through transfer & conveyors (cement clinker and granulated slag)	Dust	Air/windborne pathway causing impacts to health and amenity	Residences about 3 km from premises, and industrial office about 600 m	Refer to Section 3.1.1	C = Moderate L = Unlikely Medium Risk	Y	N/A	No commissioning and/or operation of infrastructure is approved under this works approval at this time
Product handling at truck load-out station, storage shed (cement clinker, granulated slag)	Noise			Refer to Section 3.1.1	C = Minor L = Rare Low Risk	Y	N/A	
Truck movements	Contaminated stormwater and surface water runoff	Direct discharge resulting in adverse impacts on water quality and ecology	Cockburn Sound marine environment	Refer to Section 3.1.1	C = Minor L = Unlikely Low Risk	Y	N/A	

Note 1: Consequence ratings, likelihood ratings and risk descriptions are detailed in the *Guideline: Risk assessments* (DWER 2020).

Note 2: Proposed Works Approval Holder's controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by department.

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4. Consultation

Table 4 provides a summary of the consultation undertaken by the department.

Table 4: Consultation

Consultation method	Comments received	Department response
Local Government Authority (City of Kwinana) advised of proposal 17 May 2022	None received	N/A
Works Approval Holder was provided with draft amendment on 17 June 2022 and provided comment on 8 July 2022	<p>The Works Approval Holder has indicated that since the works approval amendment application was submitted the proposed location of conveyor CC03 and Truck load out facility has changed.</p> <p>Due to the location change, the integrated dust collector (fitted with bag filter) on Transfer Tower 14 (T14) extracts dust from T14, the Truck load out facility and the Import Storage Dome.</p> <p>The storage capacity of the truck load out facility has also been reduced from 300 to 200 tonnes.</p> <p>The Works Approval Holder has supplied updated design document which has been referenced in the revised Works Approval.</p>	<p>The Delegated Officer believes these changes to be minor and operational in nature.</p> <p>The proposed controls listed in Table 1 are unchanged and the Delegated Officer considers these to be adequate in managing potential emission from construction activities.</p> <p>The Delegated Officer has accepted the proposed changes and has updated the revised Works Approval.</p>

5. Conclusion

Based on the assessment in this Amendment Report, the Delegated Officer has determined that an amended works approval will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements. The works approval only permits construction of the works.

The application stated that an Environmental Commissioning Plan will be submitted to support commissioning and time limited operations under the works approval. As such, an amendment to the works approval will be required to allow for commissioning and time-limited operations upon receipt of the Environmental Commissioning Plan.

5.1 Summary of amendments

Table 5 provides a summary of the proposed amendments and will act as record of implemented changes. All proposed changes have been incorporated into the Revised Works Approval as part of the amendment process.

Table 5: Summary of works approval amendments

Condition no.	Proposed amendments
Cover page	Add amendment date
Works approval history	Add

	<i>Change to infrastructure and layout of the Cement Clinker Import Circuit, change to Condition 2.</i>
Table 1, infrastructure item 1	Update infrastructure description, and design document
Table 1, infrastructure item 2	Update description of wind shield, and design document
Table 1, infrastructure item 3	Deleted infrastructure
Table 1, infrastructure item 4	Deleted infrastructure
Table 1, infrastructure item 5	Renumbered to #3. Update infrastructure description and dust collector system.
Table 1, infrastructure item 6	Renumbered to #4. Update infrastructure description, update description of wind shield, and design document
Table 1, infrastructure item 7	Renumbered to #5. Update infrastructure description and dust collector system, and design document
Table 1, infrastructure item 8	Renumbered to #6. Update infrastructure description
Table 1, infrastructure item 9	Renumbered to #7. Update infrastructure capacity and dust collector system
Table 1, infrastructure item 10	Renumbered to #8. Update description of wind shield
Condition 2	<p>Replace</p> <p><i>The works approval holder must within 30 calendar days of an item of infrastructure or equipment required by condition 1 being constructed and/or installed</i></p> <p>With</p> <p><i>The works approval holder must within 30 calendar days of the final item of infrastructure or equipment required by condition 1 being constructed and/or installed</i></p>
Schedule 1: Maps	Update Figure 1 and Figure 2.

References

1. Fremantle Ports (2022), *Application for works approval amendment and supporting information*, Fremantle WA
2. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth WA
3. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Joondalup WA
4. DWER 2020, *Guideline: Risk Assessments*, Perth WA

Appendix 1: Application validation summary

SECTION 1: APPLICATION SUMMARY			
Application type			
Amendment to works approval	<input checked="" type="checkbox"/>	Current works approval number:	W6427/2020/1
Date application received	11 April 2022		
Applicant and Premises details			
Applicant name/s (full legal name/s)	Fremantle Port Authority		
Premises name	Kwinana Bulk Jetty		
Premises location	Lot 4552 on Plan 220690; and Portion of Lot 497 on Plan 35196		
Local Government Authority	City of Kwinana		
Application documents			
HPCM file reference number:	DER2020/000324~2		
Key application documents (additional to application form):	<ul style="list-style-type: none"> • Application letter and works approval amendment application form • Risk assessment - Construction of cement clinker import circuit at Kwinana Bulk Terminal 		
Scope of application/assessment			
Summary of proposed activities or changes to existing operations.	<p>Works approval amendment</p> <p>Changes to infrastructure and layout of the Cement Clinker Import Circuit at the Kwinana Bulk Terminal premises.</p> <p>The changes include a reduction in conveyors (five to four), a reduction in transfer towers (three to two), the replacement of the storage shed with an import storage dome, increased storage capacity at the truck load out facility (110 to 200 tonnes) and a change to conveyor cover design from 'top and side wind shields' to <i>Gough all-weather roof</i> style 'top wind shields'.</p> <p>The application also requests a change to Condition 2, which requires submission of an Environmental Compliance Report to be submitted following construction of an item of infrastructure. The applicant requests that an Environmental Compliance Report is submitted following the construction of all infrastructure items.</p>		

Category number/s (activities that cause the premises to become prescribed premises)

Table 1: Prescribed premises categories

Prescribed premises category and description	Assessed production or design capacity	Proposed changes to the production or design capacity
Category 58: Bulk material loading and unloading. Premises on which clinker, coal, ore concentrate, or any other bulk granular material (other than salt) is loaded or unloaded from vessels	55,000 tonnes per day	N/A
Category 58A: Bulk material loading and unloading. Premises on which salt is loaded or unloaded from vessels		

Legislative context and other approvals

Has the applicant referred, or do they intend to refer, their proposal to the EPA under Part IV of the EP Act as a significant proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A
Does the applicant hold any existing Part IV Ministerial Statements relevant to the application?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A
Has the proposal been referred and/or assessed under the EPBC Act?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A
Has the applicant demonstrated occupancy (proof of occupier status)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A
Has the applicant obtained all relevant planning approvals?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/> N/A <input type="checkbox"/>	The proposal was approved by the Western Australian Planning Commission (WAPC) on 10 July 2020 reference DAP/20/1785.
Has the applicant applied for, or have an existing EP Act clearing permit in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No clearing is proposed.
Has the applicant applied for, or have an existing CAWS Act clearing licence in relation to this proposal?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	No clearing is proposed.
Has the applicant applied for, or have an existing RIWI Act licence or permit in relation to this proposal?	Yes <input type="checkbox"/> No <input type="checkbox"/>	Licence / permit not required. Valid licence applies (GWL65541(4))
Does the proposal involve a discharge of waste into a designated area (as defined in section 57 of the EP Act)?	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A
Is the Premises situated in a Public	Yes <input type="checkbox"/> No <input checked="" type="checkbox"/>	N/A

Drinking Water Source Area (PDWSA)?		
Is the Premises subject to any other Acts or subsidiary regulations (e.g. <i>Dangerous Goods Safety Act 2004, Environmental Protection (Controlled Waste) Regulations 2004, State Agreement Act xxxx</i>)	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Environmental Protection (Kwinana) (Atmospheric Wastes) Regulation 1992 State Environmental (Cockburn Sound) Policy 2015
Is the Premises within an Environmental Protection Policy (EPP) Area?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Environmental Protection (Kwinana) (Atmospheric Wastes) Regulation 1992
Is the Premises subject to any EPP requirements?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Ambient air quality standards and ambient air quality limits for concentration of atmospheric wastes; EPP defines 3 areas (A, B, C); premises is located within Area A (heavy industry); TSP standard & limit
Is the Premises a known or suspected contaminated site under the <i>Contaminated Sites Act 2003</i> ?	Yes <input checked="" type="checkbox"/> No <input type="checkbox"/>	Classification contaminated – restricted use (C–RU) Date of classification: 29/05/2018