Amendment Report

Application for Works Approval Amendment

Part V Division 3 of the Environmental Protection Act 1986

Works Approval Number

W6510/2021/1

Works Approval

Holder

Blue Phoenix Western Australia Pty Ltd

ACN 641 506 318

File Number DER2021/000046~4

Premises Hope Valley IBA Facility

67 Investigator Drive

Hope Valley WA 6165

Legal description -

Lot 1074 on Deposited Plan 420130

Certificate of Title Volume 4001 Folio 816

As defined by the premises map attached to the revised

works approval

Date of Report 13 December 2024

Decision Revised works approval granted

Grace Heydon

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

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Table of Contents

1.	Decis	Decision summary1					
2.	Scope	e of as	sessment	1			
	2.1	Regulatory framework					
	2.2	Applica	ation summary	1			
3.	Risk a	assess	ment	2			
	3.1 Source-pathways and receptors						
		3.1.1	Emissions and controls	2			
		3.1.2	Receptors	2			
	3.2	Risk ra	ntings	2			
	3.3	Detaile	ed risk assessment for dust emissions	5			
		3.3.1	Dust emissions – vehicle tracking	5			
		3.3.2	Dust emissions – stockpile management	5			
4.	Consi	ultatio	n	6			
5 .	Concl	usion		6			
	5.1	Summ	ary of amendments	6			
Refe	rences	S		9			
			mary of works approval holder's comments on risk draft conditions	.10			
Table	: 1: Wo	rks app	roval holder proposed controls	2			
Table	2: Sen	sitive h	uman and environmental receptors and distance from prescribed activit	y.2			
			sment of potential emissions and discharges from the premises during operation	3			
Table	4: Cor	sultatio	on	6			
Table	5: Sun	nmary o	of works approval amendments	6			
Figur	e 1: Dis	stance t	o sensitive human and environmental receptors	1			

1. Decision summary

Works approval W6510/2021/1 is held by Blue Phoenix Western Australia Pty Ltd (works approval holder) for the Hope Valley Incinerator Bottom Ash Facility (the premises), located at 67 Investigator Drive, Hope Valley.

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 environmental commissioning and time limited operation of the premises. As a result of this assessment, revised works approval W6510/2021/1 has been granted.

The revised works approval issued as a result of this amendment consolidates and supersedes the existing works approval previously granted in relation to the premises. The revised works approval has been granted in a new format with existing conditions being transferred, but not reassessed, to the new format.

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 2 September 2024, the works approval holder applied to the department to amend works approval W6510/2021/1 under section 59 and 59B of the *Environmental Protection Act 1986* (EP Act). The application requested an amendment to the works approval to "correct an error with the misdescription of the quantity of incinerator bottom ash (IBA) and incinerator bottom ash aggregate (IBAA) that can be stored on site". Upon validation, the delegated officer determined that emissions associated with the 16,000-tonne quantity of stockpiled Incinerator Bottom Ash and Incinerator Bottom Ash Aggregate described had not been risk assessed at the time of the original works approval.

The following amendments are therefore required to correctly capture the operations of the premises:

- increase the volume of Incinerator Bottom Ash (IBA) approved to be accepted and stored on site at any one time; and
- increase the volume of Incinerator Bottom Ash Aggregate (IBAA) approved to be stored on site at any one time.

Condition 17 of the current works approval authorises 2,000 tonnes of IBA only to be stored on site at any one time. However, site infrastructure was designed to store up to 16,000 tonnes of stockpiled IBA derived material on-site, specifically:

- IBA storage bunker for in-specification IBA (10,000 tonne capacity);
- Quarantine storage bunker for Quarantine IBA (2000 tonne capacity);
- Oversize IBA storage bunker for oversized IBA (2000 tonne capacity); and
- IBAA storage bunker to store IBAA produced on-site (2000 tonne capacity).

The works approval holder requires the amendment to correct the discrepancy between the volume of IBA and IBAA the facility is designed to accept and store, and the approved storage volume in the current works approval.

The facility has been constructed, and the Environmental Compliance Report and supporting documentation required on completion of construction under the existing works approval conditions has been submitted to the department. The compliance assessment of these submissions against the conditions of the existing works approval is ongoing. On 1 October 2024, the works approval holder advised the department that the commissioning of the premises had commenced. Time limited operations are currently expected to commence December 2024.

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 environmental commissioning and time limited operations 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 proposed controls.

Emission	Sources	Potential pathways	Proposed controls
IBA dust and particulate emissions	Delivery, handling, unloading, processing, and storage of IBA and IBAA during environmental commissioning and time limited operations.	Vehicle tracking off premises Air/windborne pathway	Installation of additional water cannons as per Figure 4 of the revised works approval. No changes to existing controls for dust emissions are proposed.
Noise	Delivery, handling, unloading, and processing of IBA and IBAA during environmental commissioning and time limited operations.	Air/windborne pathway	No changes or additions to existing controls for noise emissions are proposed.

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 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
Naval Base industrial estate	Approximately 430 m northwest from the northwestern corner of the prescribed premises boundary to the eastern border of the estate.
Deltatech International (Steel distributor) 55 Investigator Drive, Hope Valley	Immediately neighbouring premises boundary - 0 km west.
Freo Group Kwinana (Crane hire company) 91 Investigator Drive, Hope Valley	Approximately 35 m east of premises boundary. Premises boundaries separated by Armstrong Road.
Industrial premises on Lot 1070 on Plan 420130 Carpentaria Link, Hope Valley	Immediately neighbouring premises boundary - 0 km north and northwest.
Private residence or commercial property (freehold lot) – Lot 303 on Plan 88389 Conway Road, Hope Valley	Approximately 300 m southwest of the prescribed premises boundary.
Perth MotorPlex (Car racing track) Corner of Rockingham and Anketell Road, Kwinana Beach	Approximately 620 m south of the prescribed premises boundary.
Medina residential suburb - residents	Approximately 2.5 km southeast of the prescribed premises boundary, measured to the northwestern corner of the cadastral boundary of the closest residence.
Rural property (freehold lot) - Lot 112 on Plan 88143 Abercrombie Road, Hope Valley	Approximately 1.2 km east-southeast of the prescribed premises boundary.
Environmental receptors	Distance from prescribed activity
Crown Reserve (Type 3R; Parcel Identifier R 54030). Remnant vegetation to the south, south-	Remnant vegetation to the south separated from the premises by Investigator Road.
west, west, northwest and southeast of the premises (Swan Coastal Plain Geomorphic Wetland 6379 is within the western portion of the reserve and threatened/endangered fauna identified in the area south of the premises).	Measured distances from premises boundaries to Crown Reserve are 20 m south, 35 m south-west, 55 m southeast, 138 m west, northwest and, 172 m northwest and 380 m east.
Perth Regional Ecological Linkage	Approximately 420 m east of the premises, measured from the eastern prescribed premises boundary to the western ecological linkage boundary.
Swan Coastal Plain Geomorphic Wetland 6379 (Resource enhancement dampland)	Closest mapped extent is approximately 200 m west of the prescribed premises boundary.
Swan Coastal Plain Geomorphic Wetland 6380 (Resource enhancement dampland basin)	Approximately 920 m east of the prescribed premises boundary.

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Swan Coastal Plain Wetland 15391 (Long Swamp - conservation category sumpland basin)	Approximately 1.1 km northeast of the prescribed premises boundary.	
Swan Coastal Plain Geomorphic Wetland 6381 (multiple use dampland basin)	Approximately 760 m east of the prescribed premises boundary.	
Priority 3 and Critically Endangered Threatened Ecological Community buffer zone - Tuart (Eucalyptus gomphocephala) woodlands and forests of the Swan Coastal Plain	Located within 800 m of the prescribed premises boundary.	
 Threatened fauna Quenda (Isoodon fusciventer) – Priority 4 Perth slider (Lerista lineata) Endangered/Threatened Carnaby's cockatoo (Zanda latirostris) 	Isoodon fusciventer and Lerista lineata closest recorded locations within 80 m of premises boundary. Zanda latirostris recorded within 700 m of premises boundary.	
State Environmental (Cockburn Sound) Policy 2015	Premises is within the policy catchment boundary and the policy's 'Moderate Ecological Protection Area' is approximately 1.8 km west from the premises boundary.	

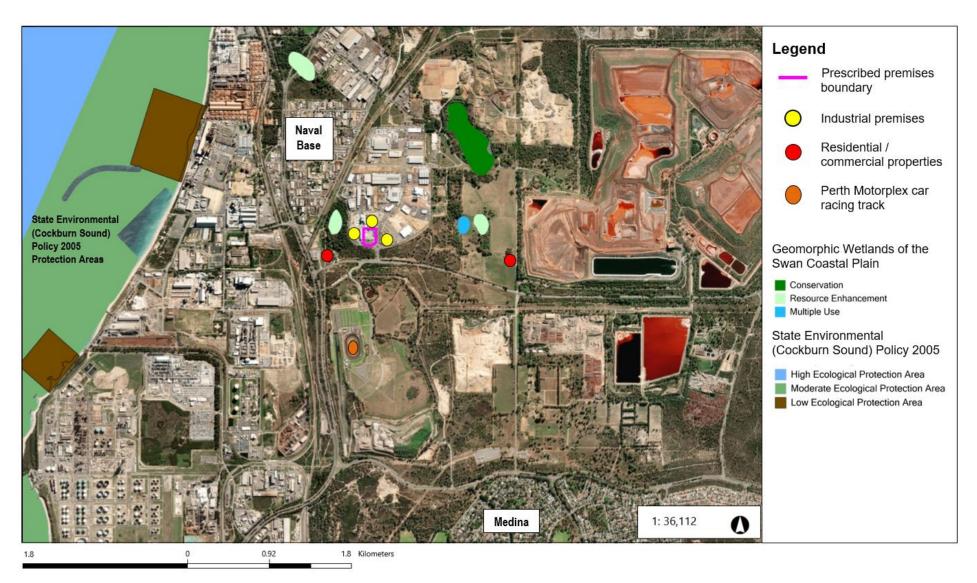


Figure 1: Distance to sensitive human and environmental receptors

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 takes into account potential source-pathway and receptor linkages as identified in Section 3.1. Where linkages are incomplete 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 W6510/2021/1 that accompanies this amendment report authorises construction, environmental commissioning and time-limited operations. The conditions in the revised works approval have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

A licence is required following the time-limited operational phase authorised under the works approval to authorise emissions associated with the ongoing operation of the premises i.e. category 62 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 licence application.

Table 3. Risk assessment of potential emissions and discharges from the premises during commissioning and operation

Risk Event	Risk Event					Works		
Source / Activities			Receptors	Works approval Holder's controls	Risk rating ¹ C = consequence L = likelihood	approval Holder's controls sufficient?	Conditions ² of works approval	Justification for additional regulatory controls
Commissioning	9							
Increased storage volume of IBA Increased storage volume of IBAA Additional handling / processing of IBA and IBAA	Dust	Vehicle tracking Air/windborne pathway causing impacts to business and/or health and amenity	Industrial premises immediately north, northwest and north Industrial premises - 35 m east Residences and commercial properties – closest is 300m east southeast Naval Base industrial suburb - closest premises is 430 m northwest Medina suburb residential properties – closest is 2.5 km southeast	Refer to Section 3.1.1	C = Moderate L = Possible Medium Risk	N	Conditions 1, 2 to 8, and 14 to 16, 17, 18, 19, 20, 21, 22, 23, 24, 25 and 26.	Refer to section 3.3
		Vehicle tracking Air/windborne pathway causing deposition of windblown dust (containing contaminants) onto surface water bodies and native vegetation	Swan Coastal Plain Geomorphic Wetlands – closest is 200 m west Threatened Ecological Community – closest within 800 m Fauna habitat (Reserve 54030) - 20 m south at closest point State Environmental (Cockburn Sound) Policy 2015 – Ecological Protection Area	Refer to Section 3.1.1	C = Moderate L = Possible Medium Risk	N	Conditions 1, 2 to 8, and 14 to 16, 17, 18, 19, 20, 21, 22, 23, 24, 25 and 26.	Refer to section 3.3
	Sediment laden stormwater	Overland runoff and infiltration into soil and groundwater potentially causing decline in surface water quality and ecosystem disturbance	Swan Coastal Plain Geomorphic Wetlands – closest is 200 m west Threatened Ecological Community – closest within 800 m Fauna habitat (Reserve 54030) - 20 m south at closest point State Environmental (Cockburn Sound) Policy 2015 – Ecological Protection Area	Refer to Section 3.1.1	C = Slight L = Possible Low Risk	Y	Conditions 1 to 8 and 27 to 29	N/A

Risk Event					Risk rating ¹ Works				
Source / Activities	Potential emission	Potential pathways and impact	Receptors	Works approval Holder's controls	C = consequence L = likelihood	approval Holder's controls sufficient?	Conditions ² of works approval	Justification for additional regulatory controls	
Operation				•					
(including time	-limited-opera	ations operations)							
Increased storage volume of IBA Increased	Dust Sediment laden stormwater	Vehicle tracking Air/windborne pathway causing impacts business and/or health and amenity	ne pathway oacts nd/or health Residences and commercial properties – closest is 300m east southeast Naval Base industrial suburb - closest		C = Moderate L = Possible Medium Risk	N	Conditions 1, 2, 3, 9 to 16, 17, 18, 19, 20, 21 & 22 to 26.	Refer to section 3.3	
storage volume of IBAA Additional handling / processing of IBA and IBAA		causing deposition windblown dust (containing contaminants) onto surface water bodi	Air/windborne pathway causing deposition of windblown dust	Swan Coastal Plain Geomorphic Wetlands – closest is 200 m west Threatened Ecological Community – closest within 800 m	Refer to Section 3.1.1	C = Moderate L = Possible Medium Risk	N	Conditions 1, 2, 3, 9 to 16, 17, 18, 19, 20, 21 & 22 to 26.	Refer to section 3.3
		Overland runoff and infiltration into soil and groundwater potentially causing decline in surface water quality and ecosystem disturbance	Fauna habitat (Reserve 54030) - 20 m south at closest point State Environmental (Cockburn Sound) Policy 2015 – Ecological Protection Area	Refer to Section 3.1.1	C = Slight L = Possible Low Risk	Y	Conditions 1 to 3, 9 to 13 and 27 to 29.	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.

3.3 Detailed risk assessment for dust emissions

3.3.1 Dust emissions – vehicle tracking

Conditions 20 and 21

Stockpiled material within the storage bunkers (as depicted in Figure 4 of the revised works approval) is disturbed during delivery of IBA, removal of IBAA, and when stockpiled IBA and IBAA is moved to and from stockpiles during handling and processing. As a result, there is potential for stockpiled IBA and IBAA dust to migrate to paved areas outside the storage bunkers. The hardstand area within the centre of the stockpiles is the area used by the bobcat to move IBA and IBAA within the site and is also a one-way vehicle access route which is the only entry and exit point for vehicles collecting and delivering stockpiled materials. The use of overhead sprinklers for dust-suppression within this area has the potential to generate IBA sludge, which can adhere to truck wheels and be tracked offsite.

The works approval application submitted on 19 January 2021 stated that rumble strips were to be installed at the vehicle exit point of the premises as a control to minimise the risk of dust tracking via vehicle movements. The decision report for the works approval considered rumble strips as a proposed control in the risk assessment. However, the proposed rumble strips were not installed by the works approval holder, and therefore the risk of dust and/or IBA sludge leaving the premises via vehicle movements is considered greater than was assessed when the works approval was first granted.

The works approval holder's controls to minimise dust accumulation on paved areas outside the storage bunkers include sweeping the on-site paved areas (including the vehicle access route) using an onsite sweeper. However, given the volume of IBA and IBAA stored on-site, and the unknown's surrounding frequency of vehicle movements and sweeping activities, these controls may not be sufficient to prevent IBA sludge leaving the premises via vehicle tracking.

As accumulated dust and/or IBA sludge along Investigator Drive has potential to impact nearby sensitive receptors and receptors further afield via dust or IBA sludge migration, the Delegated Officer considers conditions 20 and 21 necessary to ensure that IBA sludge and/or dust does not leave the premises via vehicle tracking. Monitoring required by condition 21 will enable a prompt response to mitigate emissions if tracked dust or IBA sludge is identified on Investigator Drive, and will inform future requirements for ongoing management of premises dust emissions.

3.3.2 Dust emissions – stockpile management

Conditions 1 and 17

The proposed volumes of IBA to be stored within the IBA storage area and the IBA quarantine storage area is significantly greater than the volumes stated in the current works approval; despite these volumes being captured on the originally submitted plans. Additionally, regulatory controls related to IBAA storage are not included in condition 17 of the current works approval.

The Delegated Officer therefore considers additional controls under condition 17 necessary to clarify the type and volume of IBA derived waste material approved be stored in each designated storage bunker on-site. This is because the differing types, heights, and volumes of IBA or IBA derived material stored within the storage bunkers impact the likelihood and extent of dust generated when stockpiles are stored and handled.

Due to the increased volumes approved for storage, limits will be imposed on stockpile height in condition 17. Limiting stockpile height will reduce exposure of the stockpiled material to wind and reduce dust lift-off. The heights adopted have been taken from the originally submitted premises plans, which set out the configuration, volume, and height of onsite stockpiles. To ensure compliance with height limits by delivery vehicles and staff, condition 1 (item 7) requires installation of clearly visible maximum stockpile height markers within each storage bunker.

The proposed Oversize IBA storage area has not been previously assessed for storage of this material. The Oversize IBA storage bunker wall was constructed to a height of 2.5 m and an additional sprinkler has been recently installed to ensure the entire storage area is able to be wetted down for dust suppression. As the oversized IBA particles are larger than IBA and IBAA, dust migration via air/windborne pathways is less likely; therefore, the wall height and dust suppression methods are deemed sufficient to mitigate the risk of dust emissions originating from IBA stored within the Oversize IBA storage area.

4. Consultation

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

Table 4: Consultation

Consultation method	Comments received	Department response
City of Kwinana advised of proposal (10/09/2024)	No comments received	N/A
Mr James Mumme (appellant) advised of proposal (10/09/2024)	No comments received	N/A
Works approval holder was provided with draft amendment on (27 September 2024)	Refer to Appendix 1	Refer to Appendix 1

5. Conclusion

Based on the assessment in this amendment report, the Delegated Officer has determined that a revised works approval will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements.

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		
All	Date of amendment updated. Correction of grammatical errors.		
Licence history table	Table updated to include this amendment.		
Condition 1	Reference to Figure 2 updated to Figure 4 and IBAA and IBA storage areas renamed in Table 1, item 2, column 4.		
	Reference to 'corresponding timeframe' removed from condition wording as no timeframes for construction specified.		

Condition 10(a)	Duration of approved time-limited operation period increased toa period not exceeding 210 days (previously 180 days) (Refer to comments in Appendix 1).
Condition 15	Standard condition requiring the monitoring and recording of all loads of material accepted at, and removed from, the premises during commissioning and time limited operations inserted. Corresponding Table 3: <i>Material monitoring</i> inserted.
Condition 17,	Table title amended to 'Waste processing and storage'.
Table 3	Site map reference column added to Table 3 to indicate location of storage areas.
	Column 3 heading updated to include storage specifications:
	Reference to Figure 2 updated to Figure 4
	 IBAA and IBA storage areas renamed to reflect naming in Figure 4 and for clarification
	 2,000 tonnes amended to 10,000 tonnes
	 Stockpile height requirement added
	Site map reference location added
	Process limits and storage specifications and site map reference locations for Quarantine IBA, Oversize IBA, IBAA, Ferrous materials and Non-ferrous materials added to Table 3 (rows 2 to 6).
	Note 1 footnote added to Table 3 to clarify stockpile height measurement requirements.
	Incinerator Bottom Ash (IBA) - within specification approved process amended to include processing via process plant.
Condition 20	New condition added.
Condition 21	New condition added.
Condition 22 -	Condition renumbered.
Previously condition 20	Reference to Figure 4 in Table 4column 1 updated to Figure 2.
	The unit of measurement for particulate metals in Table 4, row 2, column 3 updated to ug/m³ as per current air emissions guidelines.
Condition 23 -	Condition renumbered.
Previously condition 21	
Condition 24 -	Condition renumbered.
Previously condition 22	
Condition 25 -	Condition renumbered.
Previously condition 23	
Condition 26 -	Condition renumbered.
Previously condition 24	

Condition 27 - Previously condition 25	Condition renumbered.
Condition 28 - Previously condition 26	Condition renumbered.
Condition 29 - Previously condition 27	Condition renumbered.
Condition 30 - Previously condition 28	Condition renumbered. Noise survey submission timeframe extended from 30 to 90 days from the commencement of time operations (Refer to comments in Appendix 1)
Condition 31 - Previously condition 29	Condition renumbered.
Condition 32 - Previously condition 30	Condition renumbered.
Condition 33 - Previously condition 31	Condition renumbered.
Condition 34 and 35	Construction condition (34) added specify stockpile height marker installation requirements. Condition 35 requires photographic evidence of construction to be submitted to the CEO.
Condition 36 - Previously condition 32	Condition renumbered.
Condition 37 - Previously condition 33	Condition renumbered. Reference to monitoring condition 15 inserted.
Condition 38 - Previously condition 34	Condition renumbered.
Table 8, Definitions	Definitions added: Bulka bag, IBA sludge. Quarantine Incinerator Bottom Ash (IBA, Oversize Incinerator Bottom Ash (IBA)
Schedule 1, Figure 2: Premises site map showing location of infrastructure and elevation Previously Figure 4	Revised Figure 2 inserted. Original Figure 2 and Figure 4 show the same infrastructure; therefore 'Figure 4: Site plan with air quality monitoring locations' replaced Figure 2. Error in Figure 2 (previously Figure 4) corrected, and image updated to improve readability. Figure label updated to 'Premises site map showing location of infrastructure and air monitoring equipment locations'.

Schedule 1, Figure 3	Figure 3 updated to include recent addition of water cannons. Figure 3 label amended to 'Dust suppression/sprinkler layout'.
Schedule 1: Figure 4 Figure added	Figure 4 added to show designated on-site waste storage bunkers.

References

- 1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.
- 2. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
- 3. DWER 2020, Guideline: Risk Assessments, Perth, Western Australia.

Appendix 1: Summary of works approval holder's comments on risk assessment and draft conditions

Comment number	Condition	Detail or excerpt from the draft amended works approval	Summary of works approval holder's comments	Department's response
1	Works approval history table	Works approval history. "Amendment to increase the volume of Incinerator Bottom Ash (IBA) Incinerator Bottom Ash Aggregate (IBAA) approved to be stored on site at any one time in accordance with premises design."	Blue Phoenix made an application to correct a misdescription of the quantity of IBA and IBAA to be stored on site. An application to store more IBA and IBAA was not made. Please correct this in accordance with the application that was made.	The nature of the submitted application is detailed in section 2.2 of this decision report. As emissions and discharges associated with the 16,000-tonne quantity of stockpiled Incinerator Bottom Ash and Incinerator Bottom Ash Aggregate had not been risk assessed at the time of the original works approval, this amendment application therefore authorises an increase in approved storage volumes in accordance with premises design. The description of condition revisions made under this amendment application is therefore accurately reflected in the Departments statement. It is common practice for the Department to reflect changes made through amendment applications in this descriptive text regardless of whether the changes were applied for in the application. The 'works approval history' sections provide a summarised history of amendments made to an instrument, not a summary of what was applied for. The original text to remain within the works approval.
2	Condition 1(c) and (d)	Highlighted corrections to Condition 1, removing 1(d).	Alteration accepted.	Noted.
3	Table 1	Highlighted corrections to Table 1 updating references and improving annotations.	Alteration accepted.	Noted.
N/A	Table 1	Design and construction / installation requirements for	Amendments to construction phase	The construction phase of the works approval is complete, the amendment of construction-specific conditions will not

Comment number	Condition	Detail or excerpt from the draft amended works approval	Summary of works approval holder's comments	Department's response
		premises infrastructure		enable compliance with operational conditions. The retention of original works approval conditions is also required to facilitate potential compliance actions.
4	Table 1, Row 1, Dot point 2,	"Conveyors and screens to be enclosed"	Not all conveyors are fully enclosed. As discussed, and agreed, conveyors 20, 30, 50, 60, 80, 150, 180 and 200 are not fully enclosed and do not need to be fully enclosed. Could you please amend this condition accordingly.	The works approval holder submitted an Environmental Compliance Report (ECR) to DWER on 10 February 2023 detailing that conveyors 20, 30, 50, 60, 80, 150, 180 and 200 had not been constructed so as to be fully enclosed, as required by works approval conditions. The works approval holder submitted an additional ECR to DWER on 8 August 2024 in accordance with Condition 2 of the works approval. DWER is currently undertaking a compliance assessment of the ECR's, which is yet to be finalised; however if the conveyors and screens have been constructed not in accordance with the specifications of condition 1, this may constitute a non-compliance with works approval conditions. This will be followed up by DWER through the finalisation of the compliance assessment. The original condition wording to be retained within the works approval. If any or all of the conveyors ultimately remain unenclosed, the works approval holder should reflect this change in the subsequent licence application, and the operation of the conveyors without covers will be assessed.
5	Table 1, Row 2 Dot point 1,	"Separate windrows surrounded by 3.5 m high concrete panels topped by windshields."	The IBA and IBAA storage areas are surrounded bunker walls that are at least 2.5m high. This has been accepted by DWER as an acceptable alteration. Could you please amend this condition accordingly.	Department acknowledges that walls have been constructed to a lower height. In line with above comments, the original condition wording will be retained within the works approval. As the construction phase of the works approval is complete, the amendment of construction specific conditions will not render compliance with operational conditions. As such a retrospective amendment to the works table is not warranted.
6	Condition 2, 3	Environmental Compliance	The report required by Condition 2 has	The works approval holder submitted an Environment

Comment number	Condition	Detail or excerpt from the draft amended works approval	Summary of works approval holder's comments	Department's response
	and 4.	Reporting and commencement of commissioning.	been submitted. Commission of the plant commenced on 1 October 2024. Please consider removing Conditions 2, 3 and 4.	Compliance Report (ECR) to the Department on 8 August 2024 in accordance with Condition 2 of the works approval. However, DWER is currently undertaking a compliance assessment of the ECR which is yet to be finalised. Conditions 2 and 3 need to remain, to retain original works approval conditions, which will support proper Assurance processes. Condition 4 permits the commencement of environmental commissioning. A removal of this condition will remove the authority for commissioning to be undertaken at the premises. Because of this, this condition also needs to remain.
7	Condition 9	The works approval holder may only commence time limited operations for all items of infrastructure identified in condition 1 where the Environmental Commissioning Report required by condition 7 has been submitted by the works approval holder."	Condition 7 affords 30 days to provide an Environmental Commissioning Report at the completion of the commission period though, time-limited-operations are not permitted to start until the report has been provided. The arrangement does not allow for the smooth transition from the commissioning period to time-limited-operations without interruption.	The Delegated Officer has amended the condition as requested – 'The works approval holder must provide written notification to the CEO outlining the date that time limited operations have commenced at the premises, within 7 calendar days of time limited operations commencing'.
			Could you please amend this condition(s) to allow for a smooth transition from the end of the commissioning period to the time-limited-operations without an interruption. Alternatively, please consider removing	
			the limitation of providing a report from this condition.	
8	Condition 14 and Table 2.	Table 2 column 3 has the heading, "Volume (tonnes/annum)."	Condition 14 sets out the quantity of IBA that may be brought onto the premises during the commissioning and time-limited-operations (240 days) whereas the heading of column 3 notes	Noted and amended as requested.

Comment number	Condition	Detail or excerpt from the draft amended works approval	Summary of works approval holder's comments	Department's response
			an annual amount. Could you please amend this condition by removing the word "annual"	
9	Condition 15	"The works approval holder must monitor and record both the type and total tonnage of each load of waste accepted at, and removed from, the premises."	This condition is difficult to understand as there is only one waste type listed in Table 2 and the meaning of "total tonnage of each load" is not clear. Blue Phoenix considers that a more appropriate condition would be to record and have available the monthly quantity of IBA accepted for processing etc. This might be a better type of condition. Could you please consider amending this condition accordingly.	Noted. The condition requirement to monitor and record the weight of each load of material accepted at or removed from the premises is a standard condition used across department issued instruments. This condition also relates to both conditions 14, and 17. The condition has been amended so that 'the works approval holder must record the weight of each load accepted at, and removed from the premises, for each material type listed in table 3, in the corresponding unit, and for each corresponding time period, as set out in table 3.' Table 3 includes material monitoring specifications for each material relevant to the premises. This will assist in interpretation of condition requirements.
10	Condition 16	"The works approval holder must ensure that any waste that does not meet the waste acceptance criteria set out in condition 14 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."	IBA that is quarantined and not processed is returned to the source that generated the material for reprocessing. Could you please amend this condition to reflect the operational practices on site.	This is a standard condition appertaining to the handling of non-conforming wastes. However, the Delegated Officer has amended condition wording as requested to: "The works approval holder must ensure that any waste that does not meet the waste acceptance criteria set out in condition 14 is removed from the premises by the delivery vehicle or, where that is not possible, stored in a quarantined storage area or container and returned to the premises where the waste was generated as soon as practicable."
11	Condition 17	"The works approval holder must ensure that wastes accepted onto and stored at the premises are only subjected to the processes set out in Table 3, and in accordance with any	Condition 17 and its associated table, itemise recovered IBAA, ferrous metals and non-ferrous metals as waste materials. These are valuable resources recovered from IBA and not	The condition outlines the requirements for the storage of unprocessed waste (IBA) and waste derived materials. Recovered ferrous and non-ferrous materials are considered waste until materially transformed, with non-ferrous material considered a hazardous waste (Basel code

Comment number	Condition	Detail or excerpt from the draft amended works approval	Summary of works approval holder's comments	Department's response
	Condition		waste materials. Ferrous and non-ferrous metals recovered from IBA do not pose a risk to the environment (not a source for dust emission) and therefore it is unreasonable to impose regulatory control conditions where there is no need to do so. Blue Phoenix considers that the proposed conditions relating to storage of ferrous and non-ferrous metals are not necessary for preventing, controlling, abating or mitigating the likelihood of pollution or environmental harm. Further, non-ferrous metals may from time to time be placed into ~1 tonne bulka bags and stored in convenient locations around the plant until such time are there are marketable quantities available for shipment. Please remove IBAA, ferrous and nonferrous metals from Table 3. Further clarification was provided on 15 November 2024, requesting that nonferrous materials may also be stored in a range of packages as markets may dictate from time to time, within shipping containers and within the hardstand area of the plant. The applicant also stated that Blue Phoenix and its international partners	P47). Stockpiling of recovered ferrous and non-ferrous material on premises due to changing market conditions presents a fire hazard, with piles of oxidized dissimilar metal fragments presenting a combustion risk. Whilst acknowledging the applicant's statement that "Blue Phoenix and its international partners have no record of a fire event in ferrous metal stockpiles or non-ferrous metals stockpiles after 20 years of operation", the department still considers that the practice of stockpiling ferrous and non-ferrous material presents a combustion risk. Additionally, the stockpiling of IBAA has capacity to generate dust emissions. To minimise risk, the department implements maximum stockpile heights for these materials. The department does not give consideration to whether stockpiled material is a waste or a product when setting conditions, as the department regulates emissions and discharges arising from prescribed activities. If a material has potential to generate emissions and discharges, then appropriate controls will be set through conditions. This is common practice within DWER's issued instruments across a range of prescribed premises and activities that result in a useable product, such as construction and demolition recycling facilities. As such, process limits and storage specifications will remain on the works approval for IBAA, ferrous, and non-ferrous metals. Allowance for the storage of non-ferrous materials in packaged containment receptacles within the hardstand yard area has been incorporated into works approval conditions as requested.
			have no record of a fire event in ferrous metal stockpiles or non-ferrous metals stockpiles after 20 years of operation, thus requesting that oxidized dissimilar metal fragments do not pose a combustion risk at the premises.	conditions as requested.

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N/A	Table 3, Rows 5 and 6	Storage specifications for ferrous and non-ferrous materials	Blue Phoenix considers that the proposed conditions relating to storage of ferrous and non-ferrous metals are not necessary for preventing, controlling, abating or mitigating the likelihood of pollution or environmental harm (as per comment 11 above).	DWER has requested that the works approval hold provide storage volumes and stockpile heights for ferrous and nonferrous metals, to ensure consistency across material storage requirements and as a regulatory control in relation to combustion risk and contamination to stormwater. The Delegated Officer notes that the storage volumes for ferrous and non-ferrous metal were not considered in the original submission of this amendment application. However, the Delegated Officer will incorporate the additional volume to accurate reflect the storage of all materials across the premises. This will correct the total storage capacity of materials at the premises to 18,000 tonnes per annual period. The department has set the maximum height for the Nonferrous materials stockpiles within the Non-ferrous materials storage bunker to be 5 metres, which is aligned with the IBAA stockpile heights proposed. The department has accepted the applicant's proposed storage volumes for ferrous and non-ferrous materials at a combined 2,000 tonnes at any one time, aligning with the IBA and IBAA volumes proposed.
12	Table 3, Row 1, Column 3, Dot point 1	"Must only be stored within the designated IBA storage bunker IBAA Store and Raw IBA Storage as depicted in Figure 4: Site plan with air quality monitoring locations."	Please consider replacing this with, "Must only be stored withing the designated IBA storage bunker	This is the intention of modification. Must only be stored within the designated IBA storage bunker as depicted Figure 4 of Schedule 1. As such, no further amendments to the condition are required.
13	Table 3, Row 1, Column 3, Dot point 2.	"Figure 4 of Schedule 1."	Please consider removing this as it duplicates the preceding condition and the reference map location detail in Table 3, Row 1, Column 4.	This is a formatting error – deleted as requested.

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14	Table 3, Row 1, Column 3, Dot point 3	"A maximum of 2,000 10,000 tonnes to be stored in the IBA storage bunker at any one time.	Please consider replacing this with, "A maximum of 10,000 tonnes at any one time."	Amended as requested as this does not materially change existing condition requirements.
15	Table 3, Row 1, Column 3, Dot point 4.	"IBA stockpiles within the IBA storage bunker not to exceed 6 metres in height at any point1;"	Blue Phoenix considers that the limitation of 10,000 tonnes of IBA is sufficient. Please remove this proposed condition.	The Delegated Officer notes that 6 m stockpile heights were proposed within originally submitted premises plans, which is why this requirement has been incorporated into revised works approval conditions. Stockpile height limitations are imposed by the Department to prevent dust lift off. Additionally, stockpile height
				limitations will help prevent the egress of stockpiled materials into trafficable areas, where clearance is required for fire management purposes.
				Compliance with tonnage storage requirements cannot be visually assessed.
				This condition needs to be retained.
				Across a range of industries, this is a commonly imposed requirement when stockpiling of materials is proposed.
16	Table 3, Row 1, Column 3, Dot point 4	"Must be wetted down and managed such that a crust forms on each stockpile."	This condition contains subjective requirements and lacks technical precision to be auditable in any meaningful way. There are outcome-based conditions in the form of ambient air monitoring	The Delegated Officer notes that a primary dust emissions control proposed by the works approval holder in the original application documents was the pozzolanic nature of the IBA an IBAA material, the properties of which means that the surface of the material rapidly forms a stable crust. Wording provided in the application is as follows:
			requirements and limits that Blue Phoenix considers sufficient control conditions for dust emissions.	"The automatic fixed water cannon system will regularly wet the surface of the stockpiles to reinforce the surface crust and assist with dust control."
			Please remove this condition.	As the Delated Officer has considered this statement as a regulatory control for dust emissions, it should be carried through as a condition in the works approval.
				Requirements for the 'maintenance of a crust' are applied in DWER-issued licences and are confirmed to be present during compliance inspections through visual inspections. The Delegated Officer foresees no issue with a crust forming on each stockpile being confirmed in the same

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				manner. Dust monitoring requirements are not always outcomes based. They can be highly specific, measurable and auditable, and can include specified management response requirements.
17	Table 3, Row 2, Column 3.	"Must only be stored within the designated Quarantine IBA storage bunker as depicted in Figure 4 of Schedule 1; a maximum of 2000 tonnes of Quarantine IBA to be stored within the Quarantine storage bunker at any one time; IBA stockpile within the Quarantine IBA storage bunker not to exceed X metres [Please specify the expected stockpile height] in height at any point1; must be wetted down and managed such that a crust forms on each stockpile; and removed to an appropriately authorised facility as soon as practicable in accordance with condition 16."	Consistent with comments 10, 12, 14, 15, and 16 above please consider replacing these conditions with: • Must only be stored in the designated quarantine IBA storage bunker • A maximum of 2,000 tonnes at any one time	Please see above responses to comments 10, 12, 14, 15, and 16. For IBA storage, the original condition wording will be amended as requested as this does not materially change existing condition requirements. For maximum storage, requirements are amended as requested as this does not materially change existing condition requirements. The department has set the maximum height for the IBA stockpile within the Quarantine IBA storage bunker to be 6 metres, as proposed by the applicant.
18	Table 3, Row 3, Column 3	"Must only be stored within the designated Oversize IBA storage bunker as depicted in Figure 4 of Schedule 1; • a maximum of 2000 tonnes of Oversize IBA to be stored within the quarantine storage bunker at any one time; and • IBA stockpile within the	Consistent with comments 10, 12, 14, 15, 16 and 17 above please consider replacing these conditions with: • Must only be stored in the designated oversize IBA storage bunker • A maximum of 2,000 tonnes at any one time	Please see above responses to comments 10, 12, 14, 15, 16 and 17. For IBA storage, the original condition wording will be amended as requested as this does not materially change existing condition requirements. For maximum storage, requirements are amended as requested as this does not materially change existing condition requirements.

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		Oversize IBA storage bunker not to exceed X metres [Please specify the expected stockpile height] in height at any point1; and		The department has set the maximum height for the IBA stockpile within the Oversize IBA storage bunker to be 6 metres, as proposed by the applicant.
		must be wetted down and managed such that a crust forms on each stockpile."		
19	Table 3, Row 4	IBAA Storage controls.	Consistent with comments 10, 12, 14, 15, 16, 17 and 18 above please consider replacing column 3 with these conditions: • Must only be stored in the designated IBAA storage bunker • A maximum of 2,000 tonnes at any one time Further, we strongly oppose the notion that IBAA is a waste material and any heading, subheading or refence to it being a waste either directly or indirectly in conditions, tables, table headings or subparagraphs etc. should be removed. We are not opposed to the IBAA storage conditions noted above and would prefer them to be included in a separate condition with its own table	Please see above responses to comments 10, 12, 14, 15, 16, 17 and 18. For IBA storage, the original condition wording will be amended as requested as this does not materially change existing condition requirements. For maximum storage, requirements are amended as requested as this does not materially change existing condition requirements. To avoid any confusion between 'waste' and 'waste derived material', the Delegated Officer has changed the column 1 heading in table 3 to 'Material' and the table heading to 'Material processing and storage'. With this change, IBA, IBAA, non-ferrous and ferrous metal can be considered in the same table for ease of interpretation. This change 'waste' to 'material' is applied throughout the works approval.
20	Table 3, Note 1	"Note 1: The stockpile height is the measurement from the concrete hardstand at the base of the stockpile to the top of the stockpile at the highest point"	(not inferring IBAA is a waste material). Consistent with comments 10, 12, 14, 15, 16, 17 and 18 above please remove this proposed note to the condition.	Stockpile height limitations are imposed by the Department to prevent dust lift off. Additionally, stockpile height limitations will help prevent the egress of stockpiled materials into trafficable areas, where clearance is required for fire management purposes. This is a commonly imposed requirement across a range of industries where stockpiling of materials is proposed.

Comment number	Condition	Detail or excerpt from the draft amended works approval	Summary of works approval holder's comments	Department's response
				Additionally, compliance with tonnage storage requirements cannot be visually assessed.
				Specifications on how stockpile heights should be measured are required to confirm compliance with stockpile height restrictions.
				This condition will therefore be retained on the Licence.
				It is noted that stockpile height restrictions were originally proposed in the works approval application documents for IBA and IBAA.
21	Condition 20	"The works approval holder must ensure that no visible dust generated from the primary activities crosses the boundary of the premises."	Blue Phoenix considers that this condition lacks sufficient technical specification to be meaningful. Blue Phoenix also notes that there are outcome-based conditions in the form of ambient air monitoring requirements and limits which Blue Phoenix considers provides sufficient control conditions for dust emissions. Please remove this proposed condition.	This condition is a standard outcomes-based condition applied commonly to potentially dust emitting premises. For clarity, outcomes-based conditions are conditions which require an 'outcome' be obtained, whilst allowing an operator to achieve that outcome by whatever means are most appropriate. For this condition, the 'outcome' is that no dust should be emitted from the premises. This condition will therefore remain on the works approval.
22	Condition 21	"The works approval holder must: (a) undertake weekly visual inspections of the premises entrance road, Investigator Drive, to confirm that IBA sludge or IBA dust resulting from vehicle movements has not crossed the premises boundary; (b) where any inspection identifies evidence of IBA sludge or IBA dust being tracked off site onto Investigator Drive, the works approval holder must engage a street sweeper to remove the IBA sludge or IBA	Blue Phoenix does not consider that the operations of the premises will cause wheel tracked wastes to be carried outside of its premises. Blue Phoenix also notes that there are outcome-based conditions in the form of ambient air monitoring requirements and limits which Blue Phoenix considers provides sufficient control conditions for dust emissions. Please remove this proposed condition. Subsequent to the above, the applicant provided correspondence on 15 November 2024 stating that a photographic record of weekly visual	DWER is aware that the tracking of material off site has been identified as an emission of concern at the majority of bulk material storage facilities that hold instruments, especially were material is wet down and has the potential to 'stick' to vehicles. Given that heavy-haulage vehicles will be traversing active hardstand area where bobcats loading IBA and overhead sprays will be in operation, the Delegated Officer considers that there is potential for the tracking of material off site to occur. It is also noted that and the works approval holder's original application for the premises detailed the installation of rumble strips to prevent material being tracked off site. This requirement was not carried across into works approval conditions initially as storage volumes at the premises were assessed to be no more than 2,000 tonnes. As an increase

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		dust as soon as practicable; and (c) maintain a record of all inspections and any remedial actions undertaken."	inspections of the entry area to the plant will be retained.	to storage volumes is now required, and rumble strips have not been constructed at the premises, the Delegated Officer consider that a condition requiring inspections for material tracked off site, and it's removal if identified, is appropriate. Ambient dust monitoring and outcomes have no bearing on wheel-tracked waste.
23	Page 10, Table 4	Updates to references and units of measurement	Alteration accepted.	Noted.
24	Condition 26	"The works approval holder must ensure that all monitoring equipment used to comply with conditions 22 and 25 is operated and calibrated in accordance with the manufacturer's specifications, and is maintained to provide valid data for:"	Blue Phoenix is periodically supplied with meteorological monitoring data from KIC pursuant to condition 25 of the works approval but, it does not have the capacity ensure the equipment is calibrated. This is a responsibility that rests with KIC. Please remove, "and 25" from this condition.	Noted. Reference to condition 25 deleted from condition.
25	Conditions 34 and 35	Installation of height markers on storage bunkers.	As mentioned in above commentary, this requirement is unnecessary because there are outcome-based conditions in the form of ambient air monitoring requirements and triggers in the works approval conditions. Please remove these conditions. Subsequent to the above, the applicant provided correspondence on 15 November 2024 stating that stockpile height markers will be installed in accordance with the works approval.	Please refer to above comments on decision making surrounding stockpile height restrictions. Stockpile height cannot be gauged visually by premises staff or compliance officers. Stockpile height markers are therefore commonly required at premises where stockpile height restrictions are implemented to assist with operational management and ensure stockpiles remain in compliance with instrument condition requirements. It should be noted that these conditions are 'outcomesbased', as whilst there is a requirement to implement stockpile height markers, the conditions contain suitable flexibility to allow the works approval holder to install these markers however is best suited at the premises. As previously discussed (comment 16), monitoring conditions are not 'outcomes-based'. Table 8, column 2 row 2, point 2 of condition 34 has been

Comment number	Condition	Detail or excerpt from the draft amended works approval	Summary of works approval holder's comments	Department's response
				amended to better reflect purpose of condition. All other wording has been retained.
26	Definitions - IBA sludge definition.	"IBA sludge: means IBA and/or IBA dust that has been mixed with water forming soft, sticky matter."	As mentioned in above commentary, Blue Phoenix has recommend removing the condition that draws upon this definition, and it is there not needed.	Condition 22 and definition to be retained – as discussed above (comment 22).
Additional feedback received 27/11/2024	10(a)	n/a	Based on the duration of plant outages Acciona has experienced to date, could you also please consider amending the duration of time-limited operation to afford 210 days in Condition 10(a).	Noted. Time limited operation period amended.
	30 (formerly) 28	n/a	Condition 28 of Works Approval W6510 requires a noise validation survey within 30 days of the commencement of time-limited operations. At this point in time, Blue Phoenix's (BPG) Hope Valley IBA Facility may not be running during the month of December 2024 due to outages of the Acciona plant in Kwinana.	Noted. Time period amended.
			BPG has planned and scheduled the noise survey to be completed in December although as mentioned above, the plant may not run during December and the planned noise survey needs to be re-scheduled for a later time. We also have the Christmas period of time and noise consultants may have limited availability in January. In my opinion it would be better to schedule the noise survey for an operational period of time in January or February when we can be assured that the plant will be operational. The corollary to this is amending the 30 day	

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Comment number	Condition	Detail or excerpt from the draft amended works approval	Summary of works approval holder's comments	Department's response
			period of time to a 90 day period of time in Condition 28.	