Decision Report

Application for Works Approval

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

Works Approval Number	W6813/2023/1
Applicant	Alcoa of Australia Limited
ACN	004 879 298
File number	DER2023/000374
Premises	Pinjarra Alumina Refinery South Western Hwy PINJARRA WA 6208 Legal description – Lot 19 on Diagram 44739, Part of Lot 109 on Diagram 60089, Part of Lot 151 on Plan 10914, Lot 221 on Plan 302632, Lot 222 on Plan 302638, Part of Lot 251 on Plan 35963 and Lot 252 on Plan 35963 As defined by the premises maps attached to the issued works approval
Date of report	11 June 2024
Decision	Works approval granted

Table of Contents

1. Decision summary

This decision report documents the assessment of potential risks to the environment and public health from emissions and discharges during the construction and operation of a second residue filtration plant (RFP2) at the Alcoa Pinjarra Refinery (premises). As a result of this assessment, works approval W6813/2023/1 has been granted for construction, and time limited operations of RFP2.

2. Scope of assessment

2.1 Regulatory framework

In completing the assessment documented in this decision report, the Department of Water and Environmental Regulation (the department; DWER) has considered and given due regard to its regulatory framework and relevant policy documents which are available at DWER Regulatory documents | Western Australian Government (www.wa.gov.au).

2.2 Application summary

On 1 June 2023, Alcoa of Australia Limited (Alcoa, the applicant) submitted an application for a works approval to the department under section 54 of the *Environmental Protection Act 1986* (EP Act).

The application is to undertake construction works to establish a second residue filtration plant (RFP2) at the Alcoa Pinjarra Refinery (the premises). The RFP2 will reduce the moisture content of waste sand and mud (residue) produced by bauxite refining, via pressure filtration, to form a dry mud cake (filter cake), which will be transported via conveyor to the premises residue storage area (RSA). The RFP2 will be located on the western side of the premises RSA, immediately south of the existing residue filtration plant (RFP1).

The works relate to category 46: Bauxite refining under Schedule 1 of the Environmental Protection Regulations 1987 (EP Regulations) which are defined in works approval W6813/2023/1. The infrastructure and equipment relating to the premises category and any associated activities that the department has considered in line with *Guideline: Risk Assessments* (DWER 2020) are outlined in works approval W6813/2023/1.

2.3 Exclusions

The following matters are outside the scope of this assessment and have not been considered within the technical risk assessment detailed in this report:

The filter cake produced by RFP2 will be transferred to and stored within existing RSA5 operating under licence L5271/1983/14, or new RSA 2/3 for which a works approval application has been submitted (W6808/2023/1) and is being separately assessed. Storage of filter cake within the existing RSA has already been subject to assessment and will be separately considered as part of the assessment of the application for RSA2/3 W6808/2023/1 therefore has not specifically been considered within the scope of this assessment.

2.4 Premises overview

The premises is an alumina refinery located approximately 90 kilometres south of Perth and three kilometres east of the town of Pinjarra. The refinery operates under existing licence L5271/1983/14 with an assessed production capacity of five million tonnes per annum (Mtpa) of bauxite. No change to the production capacity is being sought as part of the application.

Bauxite is supplied to the premises by overland conveyor from the Alcoa Huntly Mine located 23 km east. The Bayer process is used to refine bauxite to alumina. For every tonne of alumina produced,

two tonnes of waste sand and mud (referred to as residue) is produced. The residue is transferred to and stored within the premises RSA located to the west of the refinery.

To reduce the amount of water in the residue, and correspondingly reduce the overall volume of residue stored at the RSA, residue filtration is employed. Residue filtration uses filter presses to reduce the moisture content of residue from 60% to 30% water by weight prior to storage within the RSA. This drier, lower volume filtered residue is referred to as filter cake and is broadly composed of a mix of sand and finer particles (mud) with a pH value more than 13.

The first residue filtration plant (RFP1) was established on the premises in 2018 and is located immediately west of the RSA. Alcoa proposes to construct RFP2 to the south of RFP1. It is expected that RFP2 will more than double the filter cake production from 7,800 wet tonnes per day to 16,500 wet tonnes per day.

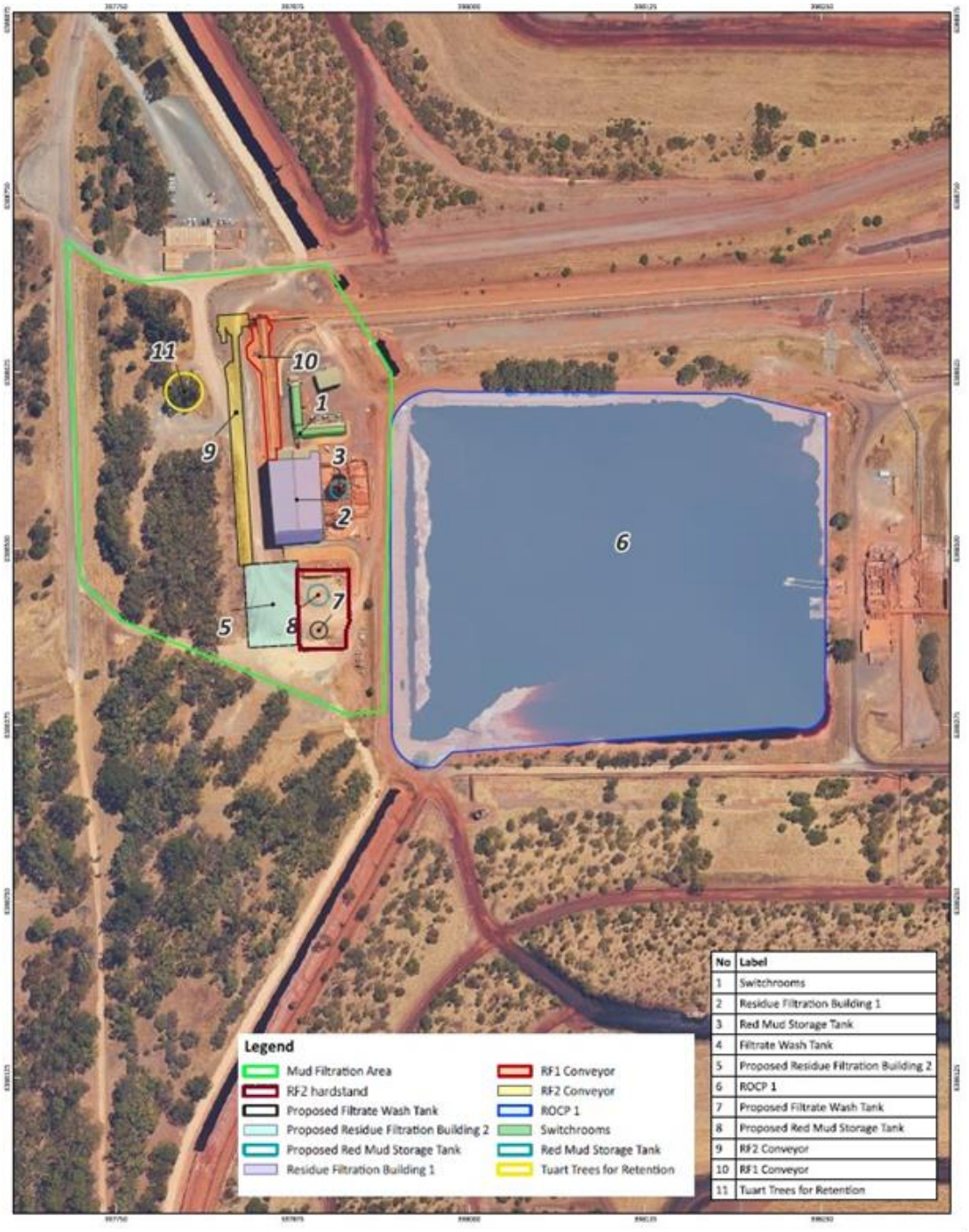

Figure 1: Location of the existing RFP1 (1-4 and 10) and proposed RFP2 (5 and 7-9)

2.4.1 Construction and infrastructure

Construction works is proposed to be carried out from Monday to Saturday (excluding public holidays) from 7 am to 7 pm. The construction site for RFP2 is located to the south of existing RFP1 building to enable linkage of RFP2 to the existing conveyor network which transfers filter cake to the RSA. No clearing of native vegetation will occur. Key infrastructure proposed to be built are as follows.

Mud filtration infrastructure:

- enclosed weatherproof building on concrete hardstand with bunding;
- 6x filter presses;
- 1x red mud storage tank;
- 6x filter press conveyors;
- 6x cake breakers;
- 1x filtrate wash tank;
- air compressors;
- electric pumps, pipes, and hoses, and
- external concrete hardstand and bunding.

Materials handling infrastructure:

- RF2 overland conveyor system;
- RF2 transfer station; and
- extension of existing overland conveyor (MV002).

An extension of the existing overland conveyor system that transports the filter cake to the RSA will be required to link to the RF2 overland conveyor and transfer station. The general layout of the premises infrastructure is illustrated in Figure 1.

2.4.2 Operation

Operation of RFP2 is a replication of RFP1 comprising two operational processes: residue filtration and materials handling. RFP2 will include residue receival/storage and processing infrastructure to undertake pressure filtration and production of filter cake ready for transfer to the RSA via a conveyor system.

Materials handing will occur outside the RFP2 building via an overland conveyor and transfer station which will connect into the existing overland conveyor system which services RFP1. Filter cake will be transferred by the materials handling infrastructure to RSA5 (existing) or RSA2/3, a new residue storage compound which will be constructed (subject to grant of W6808/2023/1 currently under assessment). At the RSA filter cake is deposited by a Mobile Spreader Bridge (MSB) and earthmoving equipment is used to spread and level the filter cake. An overview of the filtration and materials handling process is as follows.

Residue is pumped from the refinery, via a super thickener, to the residue filtration area. At RFP2 the residue will enter the red mud storage tank that has an agitator to prevent mud from settling in the tank. Filter feed pumps and filter booster pumps transfer residue from the storage tank to filter presses inside the RFP2 building. Each set of pumps has its own outlet from the tank which feed individual filter presses.

The residue is held under pressure by filter plates in the filter presses to force water out. Each filter plate is covered with a filter cloth with pressure used to force water (filtrate) through the cloth leaving filter cake in the filter press cavity. The filtrate drains into drip trays below the filter presses and drain via a common pipeline to a filtrate wash tank located outside the RFP2 building (adjacent to the red

mud storage tank).

At the end of the press cycle the filter presses separate and the remaining filter cake trapped in the cavity of the filter press plates is dropped through a steel grate onto a filter press conveyor located directly beneath the drip trays. The steel grate helps break up the sheet of compressed filter cake. The filter press conveyor transfers the filter cake to the external overland conveyor. A rotating cake breaker (comprising a cylindrical drum with arms and paddles) is located at the end of the filter press conveyor and acts as a shredder to break up any larger lumps of filter cake before it is transferred onto the overland conveyor via a hopper.

The overland conveyor RF2 will run parallel with the existing overland conveyor RF1. A transfer station RF2 including a head chute and a transfer chute will be established at the end of overland conveyor RF2 to allow for filter cake to be transferred onto the existing conveyor system for transport to either RSA 5 or RSA 2/3 (not yet constructed). The existing conveyor system will be extended to allow for this. Belt scrapers and belt spray bars will be fitted to overland conveyor RF2 ensure that the conveyor belt is kept clean and free from any build-up of filter cake.

Each press cycle is estimated to be 30-35 minutes. RFP2 is designed to have four filter presses online, one filter press on wash cycle, and one on standby or offline for maintenance.

A core wash and blow are undertaken on the completion of the mud pressurisation to remove solids from the filter press feed line. The wash water is pumped from the filtrate wash tank with residual solids and wash water draining back to the same tank following the wash. Over time, the filter plate cloths become contaminated and clog up. The plant is programmed to undertake a cloth wash cycle after a specified number of press cycles to address this. Water is sourced from the RSA water storage reservoir for the washing cycle. Wastewater from the wash cycle reports to drip trays and is transferred to the filtrate wash tank.

The RFP2 building will be bunded with concrete floor drains to transfer wastewater into collection sumps. As the sumps fill, level alarms automatically turn on electric pumps to pump wastewater to the runoff pond or filtrate wash tank.

2.4.3 Environmental commissioning and time limited operations

The applicant proposes to commission RFP2 over six months on completion of the construction of the facility. Standard wet and dry commissioning activities for the pumps and conveyor will be undertaken. Emissions during environmental commissioning are not expected to be different or additional to during the operational phase. The wet commissioning of RFP2 will therefore be treated as time limited operations for the purpose of the assessment providing for wet commissioning and operation under works approval W6813/2023/1 prior to any application for amendment to licence L5271/1983/14.

2.5 Part IV of the EP Act

Ministerial Statement (MS) 646 was granted by the Minister for Environment on 3 March 2004 for the Pinjarra Refinery Efficiency Upgrade (PREU). The statement states the proposal is for "*the construction and operation of an upgraded seed filtration facility and associated plant in order to increase the alumina production at the Pinjarra Refinery, South West Highway, Pinjarra to approximately 4.2 million tonnes per annum*."

EPA Bulletin 1122 informed the Minister's decision that the proposal may be implemented, subject to the conditions of MS 646.

The EPA's assessment identified key environmental factors of:

- air quality including odours and dust;
- greenhouse gas emissions;
- noise; and
- water supply.

Ministerial Statement 646 has also undergone two amendments pursuant to section 45C of the EP Act on 1 July 2008 and 21 September 2015 which included an increased production of five million tonnes per annum. The Delegated Officer noted that a revised proposal which includes an increase in alumina production from the refinery was referred to the EPA under Part IV of the EP Act in 2020 and remains under assessment. As the RFP2 application does not seek to increase alumina production from the refinery, and the volume of residue production is within the maximum volume of 10 Mtpa specified in Attachment 2 of MS 646, it is not within the scope of the revised proposal.

The delegated officer had regard to the conditions of MS 646 including the environmental management commitments of the statement and noted Alcoa is required to implement a Noise Management Plan and have a Dust Management System including controls for the RSA.

2.6 Other relevant approvals

2.6.1 Planning approvals

The Shire of Murray indicated that planning development application was required. The applicant indicated that planning approval was not required based on the following.

- The *Alumina Refinery Agreement Act 1961* First Schedule Clause 19 states that Alcoa's rights under this act shall not be impaired through any act of the State, other than by any law or requirement relating to safety. Similarly, the *Alumina Refinery (Pinjarra) Agreement Act 1969* First Schedule Clause 2(2) provides that all the provisions of the Agreement shall operate and take effect notwithstanding the provisions of any Act or law.
- The *Planning and Development Act 2005* (Planning Act) and the associated Shire of Murray Local Planning Scheme No.4 sets out the requirements for development approvals. However due to the operation of the Alcoa State Agreements these requirements do not apply to the extent that Alcoa is undertaking activities undertaken pursuant to the rights under the Alcoa State Agreements.
- The *Building Act 2011* (Building Act) sets out the requirements for building and occupancy permits. Similarly, due to the operation of Alcoa's State Agreement Acts it therefore does not apply to activities allowed under Alcoa's State Agreement Acts. In addition, Section 72(2) of the Building Act states that a permit is not required for a building or structure used in the construction or operation of a place at which 'mining operations', are carried out. The definition of mining operations is in accordance with Section 4(1) of the *Mines Safety and Inspection Act 1994*, which includes refining and the stacking, deposition, storage, or treatment of waste and/or residue.

2.6.2 Department of Jobs, Tourism, Science and Innovation (DJTSI)

The *Alumina Refinery (Pinjarra) Agreement Act 1969* and *Alumina Refinery Agreements (Alcoa) Amendment Act 1987* apply to the premises. The department has consulted with DJTSI on the application, and it has been determined that these agreement acts do not impact on the applicant's ability to implement the proposal, subject to other approvals.

2.6.1 Department of Mines, Industry, Regulation and Safety (DMIRS)

The *Alumina Refinery (Pinjarra) Agreement Act 1969* pre-dates, and hence exempts Alcoa from compliance with the *Mining Act 1978.* Therefore, a mining proposal is not required for the construction or operation of RFP2. The filtrate wash tank will require an amendment to the Refinery's Dangerous Goods licence, this will occur in parallel with the works approval assessment application.

2.6.2 Department of Lands and Heritage (DPLH)

A desktop assessment of the DPLH Aboriginal Heritage Inquiry System did not identify Aboriginal Heritage items of concern within the RFP2 footprint.

2.6.3 Rights in Water and Irrigation Act 1914

Surface and groundwater extraction is authorised by six licences issued by the department (GWL98936, GWL150586, GWL167867, SWL98940, SWL98937 and SWL98939) and are outlined in the Pinjarra Alumina Refinery Surface and Groundwater Licences Operating Strategy. No changes to the Operating Strategy or licences are required for the construction and operation of the RFP2.

3. Noise impact assessment

Alcoa undertook two noise assessments which are relevant to the application:

- Alcoa Pinjarra Filtration Phase 2 Project ENIA Report (ENIA), and
- Alcoa Pinjarra RSA2/3 and Filtration Phase 2 Cumulative Noise Study (Cumulative Report).

Potential noise and noise characteristics for both construction and operation of RFP2 were considered using desktop assessment (construction) and acoustic modelling (operation and cumulative) using SoundPlan noise modelling software, which is based on CONCAWE prediction algorithm. Five nearest noise-sensitive premises (R1 – R5, outlined in Figure 2) were identified as representative noise-sensitive receivers located between 2.2 to 2.7 km from Alcoa operations. Alcoa's noise objective is to demonstrate that there will be no net increase to noise levels at sensitive receivers because of construction or operation of RFP2.

3.1.1 Construction

The proposed construction activities include building construction, equipment fabrication and installation, and material transfer. Alcoa indicated that under Regulation 13 of the Environmental Protection (Noise) Regulations 1997 (Noise Regulations) construction noise from a construction site is exempt from assigned noise levels set out in Regulation 7 and 8 for construction work carried out between daytime hours 7 am to 7 pm Monday to Saturday (excluding public holidays and Sunday), if the activities fall within:

- environmental noise control practices in section 4 of the Australian Standard AS2436-20104 "*Guide to Noise Control on Construction, Maintenance and Demolition Sites*", and
- the equipment used is the quietest reasonably available.

Any nighttime or Sunday / public holiday construction works the contractor must advise all nearby residents and demonstrate that it was reasonably necessary for the works to be undertaken out of normal daylight hours. A Noise Management Plan must be submitted and approved by the CEO of the DWER before works commence.

3.1.2 Operation

Noise modeling was conducted for two scenarios, the first being for the base design of RFP2 including some planned noise mitigation and the second being with additional noise mitigation to ensure no net increase to noise levels at sensitive receptors R1-R5.

Base design (unmitigated) (Scenario 1)

Primary noise sources modelled for RFP2 included extension of the existing conveyor MCV002, new RF2 transfer station and overland conveyor, and all noise emitting equipment within the RFP2.

Additionally, the base design included the following noise controls (which are also currently being retrofitted to RFP1):

- noise barriers around external transfer stations;
- roller shutter doors located in the front of overland conveyors, and
- acoustic louvres on sides of buildings in place of regular weather ventilation louvres.

The noise modelling concluded that during worst-case metrological conditions noise levels at R3, R4 and R5 are predicted to increase. Under normal operational conditions, noise levels at the receptors are predicted to increase between 0.3 and 0.5 dB (see Table 1).

Mitigated worst case noise modeling (Scenario 2)

The dominant contributors to noise sensitive receivers R3, R4 and R5 from RFP2 were identified to be the new filtration facility, transfer station and the MCV002 conveyor extension. Based on these the following additional noise controls were identified and applied to the base design for modelling of a second mitigated operating scenario:

- low noise idlers for the MCV002 conveyor extension and RF1 overland conveyor;
- acoustic cowling for motor fan side of the feed and booster pumps at RFP1 and RFP2, and
- full cladding of new RF2 transfer station.

With the above mitigation worst case noise modelling predicts there will be no net increase to the noise levels L_{Aeq} at all 5 sensitive receptors (see Table 1).

Table 1: Worst case night-time predicted noise levels for scenario 1 (base design), scenario 2 (mitigated) and scenario 3 (cumulative mitigated) for receivers R1 – R5

Receiver	[1]Assigned levels L_{A10} (with IF) dB	Existing refinery[2] (dB)	Scenario 1 predicted noise levels L_{Aeq} (dB)	Scenario 1 change (dB)	Scenario 2 predicted noise levels L_{Aeq} (dB)	Scenario 2 change (dB)	Scenario 3 predicted noise levels L_{Aeq} (dB)	Scenario 3 change (dB)
R1	36	36.4	36.4	0	36.4	0	36.4	0
R2	35	41.6	41.6	0	41.6	0	41.6	0
R3	35	35.3	35.6	+0.3	35.3	0	34.5	-0.8
R4	37	34.8	35.3	+0.5	34.8	0	34.5	-0.3
R5	35	35.7	36.2	+0.5	35.7	0	35.6	-0.1

Note 1: Tonality has not been considered.
Note 2: As per Alcoa Pinjarra Filtration Phase 2 Project ENIA Report (Wood 2023) and Alcoa Pinjarra RSA2/3 & Filtration Phase 2 Cumulative Noise Study (Wood 2023)

3.1.3 Cumulative (scenario 3)

Alcoa undertook noise modeling to predict cumulative impacts for two planned projects under worst-case meteorological conditions at nighttime for sensitive receivers R1 to R5. The assessment considered the RSA2/3 corridor conversion project (excluded from this assessment) and the RFP2 facility. The cumulative modelling (which included noise mitigation) predicted that worst case nighttime noise levels will decrease by 0.1 to 0.8 dB at sensitive receivers R3, R4 and R5 and is not expected to change for receivers R1 and R2 see Table 1.

3.1.4 Environmental Protection (Noise) Regulations 1997 Regulation 17

Alcoa applied to the Minister for Environment for Regulation 17 approval under the Environmental Protection (Noise) Regulations 1997 (Noise Regulations) for the Pinjarra Alumina Refinery in 2021. The application has been referred to the CEO for assessment under Regulation 17(3). A Regulation 17 approval is for the situation where noise emissions cannot reasonably or practicably comply with a standard prescribed under the Noise Regulations. Alcoa will be required to demonstrate to the Minister for Environment that noise emissions from the refinery cannot reasonably or practicably comply with the assigned noise levels.

The Regulation 17 application is not considered within this assessment, and it is noted that the application is still under assessment. In reviewing the ENIA and Cumulative Report it was noted that

the modelling indicates that there may be room for reduction of noise from existing levels at receiving locations to the west of the premises subject to implementation of noise mitigation detailed in the reports.

3.1.5 DWER findings

The department reviewed the methodology of the noise modelling, as presented in both the ENIA and the Cumulative Report, and concluded it was undertaken to an acceptable level to inform the assessment of the risk of noise emission impacts. The noise modelling program SoundPlan, the algorithm CONCAWE, the selection of meteorological conditions, the inputs of the modelling such as ground topography, building and barriers, and the noise sources and their sound power levels all appeared reasonable.

The delegated officer noted that the provided noise modelling indicates that noise from the existing refinery operation currently marginally exceeds the assigned noise levels at receptors R3 and R5 (which are relevant to the assessment), and that cumulative noise levels from the refinery are currently subject to detailed assessment through Alcoa's application for a Regulation 17 approval for the refinery. The modelling outcomes in the ENIA and the Cumulative Report indicate that operation of RFP2 is not expected to increase noise above current levels subject to implementation of the noise mitigation measures at RFP1 and RFP2 which were detailed within the ENIA (refer to section 3.1.2). The delegated officer considered that the proposed noise mitigation measures appear appropriate to ensure no net increase to noise levels received at sensitive receptors, and that subject to implementation of the mitigation measures, noise emissions from operation of RFP2 are not expected to contribute to existing predicted exceedances at receptors R3 and R5. In making this determination it was noted that if unmitigated, noise emissions from RFP2 will contribute to exceedance of assigned noise levels at receptors R3 and R5. The delegated officer therefore determined it appropriate to require implementation of the modelled mitigation measures.

Alcoa has proposed to undertake a post construction noise monitoring program to confirm the performance of the noise controls. The delegated officer considers verification of received noise levels via monitoring at or as close as possible to receptors is required when RFP2 commences operation to validate the accuracy of modeling predictions and confirm received noise levels at the closest receptors.

4. 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.

4.1 Source-pathways and receptors

4.1.1 Emissions and controls

The key emissions and associated actual or likely pathway during premises construction and operation which have been considered in this decision report are detailed in

Table 2 below.

Table 2 also details the control measures the applicant has proposed to assist in controlling these emissions, where necessary. Based on the applicant's experience with the existing RFP1 and the distance to the nearest receptors, there are not expected to be noticeable odour emissions from the filtration activity.

Table 2: Proposed applicant controls

Sources	Emissions	Potential pathways	Applicants proposed controls
Construction			
Clearing of non-native vegetation Vehicle movements on unsealed access roads Construction of RFP2 new buildings, tanks, plant, and infrastructure	Noise	Air / windborne pathway	Construction occurs between 7 am – 7 pm Monday to Saturday. New Alcoa vehicles and mobile equipment will be maintained. Speed limits to reduce engine noise emissions.
	Dust		Temporary dust monitors will be installed near the RFP2 construction site to monitor dust emissions to facilitate the implementation of immediate dust controls. Ongoing ambient dust monitoring program is undertaken in accordance with requirements of L5271/1983/14. Watercarts will be maintained onsite to dampen roads, tracks and stockpiles to minimise dust lift. Speed limits will apply to minimise dust lift off from vehicle movements. Alcoa will prepare a Dust Management Plan for construction (not supplied with the application).
Operation			
Residue mud storage tank, filtrate wash tank and associated transfer infrastructure (pumps and pipelines)	Residue mud and contaminated water (elevated pH and metals) due to loss of containment from tanks, pipes or pumps	Direct discharge to land Infiltration to groundwater or overland flow to surface water	The infrastructure will be established within secondary containment bunding that meets requirements of the *Dangerous Goods Safety Act 2004* (DGS Act) and associated Regulations. Contaminated stormwater runoff from the secondary containment area is collected and directed to the run-off collect pond (ROCP) for reuse. Tanks will be installed with high (90%), high-high (95%) and low (15%) level alarms. Tank design will allow adequate surge volume to manage flow variation and tanks will meet requirements of the DGS Act and associated Regulations. Spills will be reported and managed in accordance with Alcoa's Loss of containment notification processes (not supplied with the application). An existing groundwater monitoring regime is undertaken in accordance with requirements of L5271/1983/14.
	Noise (pumps and agitators)	Air / windborne pathway	Noise controls will be selected to achieve no net increase in noise emissions at sensitive receivers. All pumps will be electric powered. Acoustic cowling for the motor fan side of the RFP2 feed and booster pumps. and retrofit of acoustic cowling for the motor fan side of the existing RFP1 feed and booster pumps. Post-construction noise monitoring at the boundary will be undertaken to verify compliance with predicted noise levels and effectiveness of noise controls.

Sources	Emissions	Potential pathways	Applicants proposed controls
Residue filtration	Residue mud and contaminated water (elevated pH and metals) due to loss of containment from filtration equipment/infrastructure	Direct discharge to land Infiltration to groundwater or overland flow to surface water	Filtration equipment will be located within an enclosed building with secondary containment bunding. Floor drains within the containment bunding will drain wastewater to sumps with sump pumps. Wastewater generated from line flushing, draining, floor washing, and spills will be returned to the process via the sump system which return collected water to the premises run-off pond and/or the filtrate wash tank. An existing groundwater monitoring regime is undertaken in accordance with requirements of L5271/1983/14.
	Noise	Air / windborne pathway	Filtration equipment will be located within an enclosed building. Noise controls will be selected to achieve no net increase in noise emissions at sensitive receivers. All pumps will be electric powered. Acoustic louvres will be installed on the sides of the building in place of regular weather/ventilation louvres for RFP2 and will be retrofitted to RFP1 building. Air compressors are housed in noise control enclosures with heat and smoke monitoring. Cloth wash pumps are housed in noise control panels. Post-construction noise monitoring for verification of noise levels.
	Fugitive dust		Residue filtration is undertaken within an enclosed building.
Conveyance of filter cake	Noise	Air / windborne pathway	Noise controls will be selected to achieve no net increase in noise emissions at sensitive receivers. Noise barriers to be installed around the existing (RF1) and new (RF2) transfer stations. Acoustic panels to be installed on the new (RF2) transfer station. Roller shutter doors to be installed in front of overland conveyor receiving filter cake from the cake breaker chutes for new RFP2. Low noise idlers will be installed for the MCV002 conveyor extension. and retrofitted to existing RF1 overland conveyor. Post-construction construction noise monitoring for verification of noise levels.
	Dust		Filter cake has 30% moisture content. Overland conveyors are covered. Belt scrapers and belt spray bars are fitted to overland conveyor, to ensure the belt is clean and free from any build-up of filter cake. Ongoing ambient dust monitoring program is undertaken in accordance with requirements of L5271/1983/14.

4.1.2 Receptors

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

Table 3 and Figure 2 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emission and discharges from the prescribed premises *(Guideline: Environmental Siting* (DWER 2020)).

Table 3: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	**Distance from prescribed activity**	
Rural residences (R1, R2, R4 and R5 on Figure 2) Residential residences (R3 on Figure 2)	As measured from the boundary of the proposed filtration facility depicted in Figure 2 R1 – Approx. 6.2 km south east R2 – Approx. 6 km north east R3 – Approx. 3 km north west R4 – Approx. 2.85 km north west R5 – Approx. 2.6 km west	As measured from the RSA activity boundary: R1 – Approx. 4.2 km south east R2 – Approx. 2.8 km north east R3 – Approx. 2.3 km north west R4 – Approx. 2.8 km north west R5 – Approx. 2.7 km west
Environmental receptors	**Distance from the filtration facility (prescribed activity)**	
Groundwater	Approximately 5 m below ground level.	
Surface water Oakley Brook First order Tate Gully	 1.5 km south of the filtration plant 0.5 km west of the filtration plant	
Geomorphic wetlands Conservation palusplain wetland Multiple use palusplain wetlands	 1.3 km northwest of the filtration plant 153 m southwest, and 480 m west of filtration plant	
Waterways Conservation Act 1976 - Peel Inlet Management Area	Approximately 2.8 km west	
Peel-Harvey EPP	The Peel-Harvey EPP area incorporates all parts of the premises and surrounding areas.	
Threatened (Declared Rare) Flora	Approximately: • 2 – 2.8 km north-north-west to north-north-east. • 2.4 km west • 4.2 km east • 5.6 and 5.9 km south east	
Priority Flora	Approximately - 6.5 km north east Approximately - 4.4 – 6.7 km south east	
Priority 1 Public Drinking Water Source Area PDWSA) – South Dandalup Pipehead Dam Catchment Area	Approximately - 6 km east	

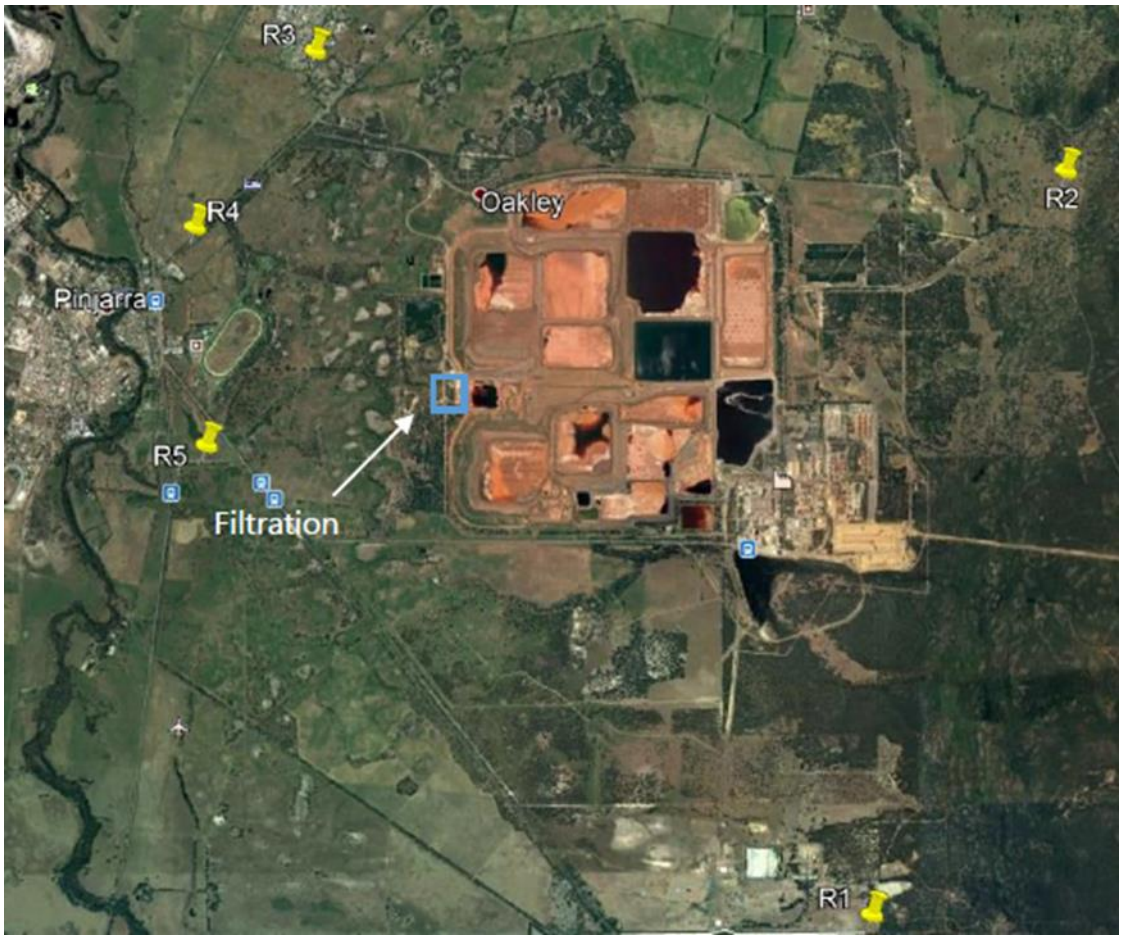

Figure 2: Distance to residential receptors (taken from ENIA for RFP2)

4.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for each identified emission source and consider potential source-pathway and receptor linkages as identified in Section 4.1. Where linkages are in-complete they have not been considered further in the risk assessment.

Where the applicant has proposed mitigation measures/controls (as detailed in Section 4.1), these have been considered when determining the final risk rating. Where the delegated officer considers the applicant'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 applicant's controls are not deemed sufficient. Where this is the case the need for additional controls will be documented and justified in Table 4

Works approval W6813/2023/1 that accompanies this decision report authorises construction and time limited operation of the infrastructure set out in the works approval. The conditions in the issued works approval, as outlined in Table 4 have been determined in accordance with *Guidance Statement: Setting Conditions* (DER 2015).

A licence amendment is required following the time-limited operational phase authorised under the works approval to authorise emissions associated with the ongoing operation of RFP2. A risk assessment for the operational phase has been included in this decision report, however licence conditions will not be finalised until the department assesses the licence amendment application for licence L5271/1983/14.

Table 4: Risk assessment of potential emissions and discharges from the premises during construction, and operation

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Reasoning	Conditions of works approval
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
Construction								
Clearing of non-native vegetation. Vehicle movements on unsealed access roads in RFP2 and 1. Construction of new buildings, plant and infrastructure.	Dust	Air / windborne pathway causing impacts to health and amenity	Closest residence is 2.6 km and Pinjarra townsite is 3 km west of RFP2.	Dust monitoring, waters carts, designated roads and vehicle speed limits. Refer to Section 4.1 for additional details.	C= Minor. Low level impact to amenity L= Unlikely. The risk event will probably not occur in most circumstances. **Medium Risk.**	Y	The delegated officer considered the applicant's controls, the proposed work hours and the separation in place (>2.6 km to nearest human receptor, > 3 km to nearest town), and determined that amenity is unlikely to be impacted by noise or dust from the construction works. The applicant's fugitive dust controls have been conditioned within the works approval during the construction works. Additional approval requirements apply under the Noise Regulations if construction activities will occur outside the specified time period.	Condition 4 Condition 5
	Noise			Construction works will be carried out between 7am and 7pm. Refer to Section 4.1 for additional details	C= Minor. Low level impact to amenity L= Unlikely. The risk event will probably not occur in most circumstances. **Medium Risk.**			
Operation								
Residue mud storage tank, filtrate wash tank and associated transfer infrastructure (pumps and pipelines)	Residue mud and contaminated water (elevated pH and metals)	Direct discharge to land and infiltration or overland flow causing contamination of soil, groundwater and/or surface water.	Soils Groundwater is approximately 5 metres below ground level. Palusplain wetlands hydraulicly linked 153 m southwest, 480 m west and 1.3 km northwest of RFP2. Oakley and Barritt Brooks 1.5 km from RFP2	Tank design standards, secondary containment with collection and reuse of potentially contaminated stormwater and spills, alarms for tanks and spill management procedures. Refer to Section 4.1	C = Moderate. Mid- level impacts onsite, low level local scale impacts. L = Rare. The risk event may only occur in exceptional circumstances. **Medium Risk**	Y	The delegated officer considered the applicant's proposed controls for containment of red mud, filtrate, spills and potentially contaminated stormwater are sufficient to minimise the risk of these materials discharging from the RFP2 and causing contamination, therefore conditioned these as construction and operational requirements within the works approval.	Condition 1 Condition 9
	Noise	Air / windborne pathway causing impacts to health or amenity	Closest residence is 2.6 km and Pinjarra townsite is 3 km west of filtration facility location.	Electric pumps, acoustic cowling for feed and booster pumps and post construction noise verification. Refer to Section 4.1	C = Minor. Low level impact to amenity. L = Possible. The risk event could occur at some time. **Medium Risk**	Y	The delegated officer considered the applicant's ENIA and predictions presented in section 3 to be reliable therefore considers that, subject to implementation of the noise mitigation contemplated in the ENIA, operation of RFP2 is not expected to increase received noise levels at the closest sensitive receptors therefore will not change the existing risk profile of noise emissions at the premises. Noise mitigation measures have therefore been specified as requirements for RFP1 and RFP2 within the works approval to ensure this outcome is achieved. The applicant proposes to undertake noise verification monitoring post construction to determine the effectiveness of the implemented noise controls. The delegated officer considers noise verification is necessary to validate the predictions of the ENIA therefore this has also been applied as a requirement in the works approval, with reporting of the results to the department for review. Verification monitoring should be undertaken at or as close as possible to the nearest sensitive receptors which could be impacted by RFP2 noise emissions (R3-R5) in order to validate the accuracy of modelling predictions through comparison with measured data, and to confirm received noise levels at these receptors.	Condition 1 Condition 10-12
Residue filtration	Residue mud and contaminated water (elevated pH and metals) pipes or pumps	Direct discharge to land and infiltration or overland flow causing contamination of soil, groundwater and/or surface water.	Soils Groundwater is approximately 5 metres below ground level. Palusplain wetlands hydraulicly linked 153 m southwest, 480 m west and 1.3 km northwest of RFP2. Oakley and Barritt Brooks 1.5 km from RFP2	Filtration conducted within an enclosed building with secondary containment with wastewater runoff draining to a central drain and pumped to filtrate wash tank. Recovery of filtrate and wash waters for reuse. Refer to Section 4.1	C = Minor. Low- level impacts onsite minimal local scale impacts . L = Unlikely. The risk event will probably not occur in most circumstances. **Medium Risk**	Y	The delegated officer considers the applicant has proposed suitable containment and collection controls within the RFP2 to minimise the risk of these materials discharging and causing contamination, therefore conditioned these as construction and operational controls within the works approval.	Condition 1 Condition 9

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Reasoning	Conditions of works approval
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
	Noise	Air / windborne pathway causing impacts to health or amenity	Closest residence is 2.6 km and Pinjarra townsite is 3 km west of RFP2.	Filtration conducted within an enclosed building. Acoustic louvres for RFP2 building, air compressors housed in noise enclosures, cloth wash pumps housed in noise control panels, electric pumps, post construction noise verification. Refer to Section 4.1	C = Minor. Low level impact to amenity L = Unlikely. The risk event will probably not occur in most circumstances. **Medium Risk**	Y	The delegated officer considered the applicant's ENIA and predictions presented in section 3 to be reliable therefore considers that, subject to implementation of the noise mitigation contemplated in the ENIA, operation of RFP2 is not expected to increase received noise levels at the closest sensitive receptors therefore will not change the existing risk profile of noise emissions at the premises. Noise mitigation measures have therefore been specified as requirements for RFP1 and RFP2 within the works approval to ensure this outcome is achieved. The applicant proposes to undertake noise verification monitoring post construction to determine the effectiveness of the implemented noise controls. The delegated officer considers noise verification is necessary to validate the predictions of the ENIA therefore this has also been applied as a requirement in the works approval, with reporting of the results to the department for review. Verification monitoring should be undertaken at or as close as possible to the nearest sensitive receptors which could be impacted by RFP2 noise emissions (R3-R5) in order to validate the accuracy of modelling predictions through comparison with measured data, and to confirm received noise levels at these receptors.	Condition 1 Condition 10-12
	Dust			Filtration undertaken in enclosed building. Refer to Section 4.1	C = Slight. Minimal local scale impact on amenity. L= Rare. The risk event may only occur in exceptional circumstances. **Low Risk**	Y	Noting the moisture content of the filter cake and filtration activities occur in an enclosed building the delegated officer considers there is a low risk of dust from filtration impacting receptor health or amenity.	Condition 1
Conveyance of filter cake	Noise	Air / windborne pathway causing impacts to health or amenity	Closest residence is 2.6 km and Pinjarra townsite is 3 km west of RFP2.	Noise barriers around RF2 transfer stations, noise controls panels around RF2 transfer station, roller shutter doors in front of RF2 overland conveyors receiving cake from cake break chutes, low noise idlers MV002 extension. Post construction noise verification monitoring. Refer to Section 4.1	C = Minor. Low level impact to amenity L = Unlikely. The risk event will probably not occur in most circumstances. **Medium Risk**	Y	The delegated officer considered the applicant's ENIA and predictions presented in section 3 to be reliable therefore considers that, subject to implementation of the noise mitigation contemplated in the ENIA, operation of RFP2 is not expected to increase received noise levels at the closest sensitive receptors therefore will not change the existing risk profile of noise emissions at the premises. Noise mitigation measures have therefore been specified as requirements for RFP1 and RFP2 within the works approval to ensure this outcome is achieved. The applicant proposes to undertake noise verification monitoring post construction to determine the effectiveness of the implemented noise controls. The delegated officer considers noise verification is necessary to validate the predictions of the ENIA therefore this has also been applied as a requirement in the works approval, with reporting of the results to the department for review. Verification monitoring should be undertaken at or as close as possible to the nearest sensitive receptors which could be impacted by RFP2 noise emissions (R3-R5) in order to validate the accuracy of modelling predictions through comparison with measured data, and to confirm received noise levels at these receptors.	Condition 1 Condition 10-12
	Dust			Overland conveyors are covered. Belt scrapers and spray bars to keep belt free of filter cake build up. Filter cake has 30% moisture. Refer to Section 4.1	C = Slight. Minimal local scale impact on amenity. L= Unlikely. The risk event will probably not occur in most circumstances. **Low Risk**	Y	The delegated officer has regard to filter cake having a moisture level of 30% and being transferred via covered conveyors with belt scrapers and washers, and that the existing licence L5271/1983/14 has ambient dust monitoring requirements and determined there was a low risk of dust from this activity causing health or amenity impact. The controls are required to be implanted to maintain the assessed level of risk therefore have been applied in the works approval.	Condition 1 Condition 9

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

5. Consultation

Table 5 provides a summary of the consultation undertaken by the department.

Table 5: Consultation

Consultation method	Comments received	Department response
Application advertised on the department's website on 4 July 2023	Comments were received by the Peel Environmental Protection Alliance Inc (PEPA) on the 26 July 2023, they provided the following comments. RSA • How will dust levels from additional filter cake stacking be managed when they cannot manage the current levels.	The delegated has addressed dust emissions associated with the construction and operation of the filtration facility. The application does not propose to increase the total amount of residue produced or the area RSA on the premises therefore there is no change to the risk profile of dust emissions associated with the application. Operating licence L5271/1983/14 and MS 646 include controls relating to ambient dust emissions from the RSA and works approval W6808/2023/1 for a new infill RSA2/3 for filter cake (currently under assessment) will more specifically risk assess dust emission impacts associated with filter cake storage.
The Shire of Murray advised of application 4 July 2023.	The Shire of Murray replied on 25 July 2023, the shire provided the following comments: RSA • Has concerns on dust regarding the stacking of the filter cake within the RSA. • Dry stacking of filter cake odour emissions from evaporative liquor releasing VOCs. • Weight of dry stacking in RSA may break liner. • RSA storage may have compounding risks associated with limited footprint, bauxite quality, limited water supply. Construction works • Consider dust potential from construction works. • Consider noise impacts from construction. Noise • Increase in noise from new RFP2 and increases in noise limits through Regulation 17 Noise Regulations. • That ENIA did not address tonality correctly. Groundwater contamination and water supply • Do not support an increase to ground or water requirements for the project. • Contaminated plume under RFP2 site should be remediated before building. • Threat of alkaline material exiting the filtration building from a press rupture. No clear information on bunding. Visual Amenity • New RFP2 building may create a negative visual impact to the proposed realigned South West Highway. Consultation • Traditional Owners have not been consulted in line with new Aboriginal Cultural Heritage Act enforced on 1 July 2023. Planning • An approval is required under the local Planning scheme No. 4.	RSA and construction works The comments above apply to RSA dust concerns. Filter cake is stored within designated RSA5 and RSA2/3 (awaiting approval) Noise The delegated officer considers the applicant's noise assessment and proposed noise controls (section 3) and determined the risk of noise impacts to be acceptable subject to the implementation of the noise control and verification monitoring post-construction. Construction works will be limited to 7am to 7pm Monday to Saturday and any operation outside these hours would require separate approval under the Noise Regulations. Groundwater contamination and water supply No increase in water and groundwater licences is proposed for the construction or operation of RFP2. Investigation and remediation of contaminated sites are managed under the *Contaminated Sites Act 2003.* Press ruptures will be captured by a central drain that gravity flows to sump(s) located outside the filtration building that are sealed and bunded on a hardstand. Pumps direct drainage to the run-off pond from the sumps. Visual amenity The comment is noted but is beyond the scope of assessment and regulation under Part V of the EP Act. Consultation The Aboriginal Cultural Heritage Act enforced on 1 July 2023 was rescinded on 9 August 2023. Planning The delegated officer notes that planning approval was requested, however Alcoa determined that the Alcoa State Agreement exempts construction of RFP2 from this requirement (see section 2.5.1)
Department of Jobs Tourism	DJTSI replied on 28 August 2023 advising that the proposal seeks to undertake works within the	The delegated officer noted this information.

Consultation method	Comments received	Department response
Science and Innovation (DJTSI) advised of application 4 July 2023.	existing boundaries of the Reside Disposal Area covered under the *Alumina Refinery (Pinjarra) Agreement Act 1969* (State Agreement) and had no further comment.	
Other Stakeholders advised of application on 4 July 2023	One stakeholder responded on 4 July 2023; the stakeholder indicated their general disagreement with Alcoa's operations in Pinjarra.	The delegated officer noted this information. The scope of assessment for the works approval is limited to construction and operation of RFP2
Applicant was provided with draft documents on 5 December 2023 and 16 May 2024	Applicant responded with comments on the first draft on 8 February 2024 and 7 March 2024. Refer to Appendix 1 for details. The applicant responded to the second draft on 5 May 2024 advising they had reviewed and accepted the second draft and requested the remaining comment period be waived.	Refer to Appendix 1

6. Decision

Based on the assessment in this report, the delegated officer has determined the proposal to construct and operate a second residue filtration plant (RFP2) at Alcoa Pinjarra Refinery with no changes to the existing premises throughput, does not pose an unacceptable risk of impacts to off-site receptors. This determination is based on the following:

- Dust monitoring being undertaken during the construction period.
- Construction will occur within nominated hours 7am to 7pm Monday to Saturday. Any works proposed to occur outside these hours will require separate approval under the Noise Regulations.
- Noise modelling indicates that there will be no net increase to noise levels at nearby receptors subject to the implementation of noise controls specified in the works approval at RFP2, retrofit of controls at RFP1 and noise mitigation works at other sections of the plant.
- The RFP2 including adequate and suitable containment infrastructure.

Conditions have been imposed on the works approval based on the controls described above as they are considered reasonable and appropriate to maintain an acceptable level of risk. Based on the assessment the delegated officer determined that noise mitigation works are required both within RFP2 and the existing RFP1 to ensure there is no net increase to noise levels at nearby receptors and had therefore applied these requirements in the works approval. The applicant will be required to undertake the noise mitigation works and undertake noise verification monitoring during time limited operations to verify predicted noise levels and the effectiveness of the noise controls at the affected sensitive receptors R3, R4, and R5.

The delegated officer determined to include time limited operation in the works approval to allow the RFP2 to be wet commissioned and operated while an application for a licence amendment to L5271/1983/14 is assessed.

7. Conclusion

Based on the assessment in this decision report, the delegated officer has determined that a works approval will be granted, subject to conditions commensurate with the determined controls and necessary for administration and reporting requirements. The applicant will be required to apply for a licence amendment (L5271/1983/14) whilst in time-limited operations to authorise continued operation of RFP2.

References

Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia.

1. Alcoa of Australia Limited, 2023, *Works approval application and supporting documents: Pinjarra Alumina Refinery Residue Filtration Plant 2*, Perth, Western Australia
2. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia
3. Department of Water and Environmental Regulation (DWER) 2020, *Guideline: Environmental Siting*, Perth, Western Australia.
4. DWER 2020, *Guideline: Risk Assessments*, Perth, Western Australia.
5. Minister for Environment 2004, *Ministerial Statement 646 – Pinjarra Refinery Efficiency Upgrade.*
6. *Pinjarra Refinery Efficiency Upgrade, Alcoa World Alumina Australia, Report and recommendations of the Environmental Protection Authority, Bulletin 1122, EPA, December 2003*
7. *Long Term Residue Management Strategy, Pinjarra 2011, Alcoa of Australia, 17 February 2012.*
8. Standards Australia, 2008 *Australian Standard 3780: The storage and handling of corrosive substances,*
9. WOOD 2023, *Alcoa Pinjarra Filtration Phase 2 Project ENIA Report February 2023*, Perth, Western Australia
10. WOOD 2023, *Alcoa Pinjarra RSA2/3 & Filtration Phase 2 Cumulative Noise Study April 2023*, Perth, Western Australia

Appendix 1: Summary of applicant's comments on risk assessment and draft conditions

Condition	Summary of applicant's comment	Department's response
Condition1 Table 1, Infrastructure, and equipment Items 1 and 2	Filtrate from the 6 filter presses will be collected by one central drain within the filtration building and gravity fed by a pipeline to the filtrate wash tank outside on the hardstand. Stormwater from hardstand will drain to sumps and directed to the ROCP1. Applicant requested that soundproof enclosures is replaced with noise enclosures and soundproof panels with noise control panels, and full cladding with acoustic panels as engineered structures are not 100 % soundproof and access for maintenance is required. Applicant requested that "*via the sump system and /filtrate return system*" is deleted. The filtrate wash tank will receive filtrate from the filter presses and other sources within the filtration building.	The delegated officer notes the information and updated construction requirements to align with the proposed infrastructure.
Condition 1 Table 1 Infrastructure and equipment Items 4 and 5	The applicant requested that noise controls relating to retrofitting RFP1 are removed. The applicant is requesting flexibility in its approach to achieving a zero noise increase at sensitive receptors. The applicant suggested a condition could be included requiring the works approval holder to prepare a plan to ensure operation of RFP2 will not result in increased noise levels at R3-R5 in the event implemented controls are not able to achieve no net increase in noise at the receptors rather than specify noise controls for RFP1.	As per section 3. noise modelling submitted with the application predicts that operation of RFP2 will result in an increase to received noise levels at the nearest sensitive receptors without implementation of controls and that no net increase in received noise levels is achievable through implementation of noise controls at RFP1 and RFP2. The inclusion of noise controls for RFP1 is considered necessary to ensure the assessed outcome of no net increase in noise emissions is achieved. The specification of controls within the works approval and does not preclude the applicant from implementing additional noise mitigation beyond that specified. It is anticipated any reasonable and practicable noise control opportunities identified by Alcoa which would further reduce received noise levels at receptors should be implemented to aim to achieve compliance with the Noise Regulations at those receptors.
Condition 2 Compliance reporting	The applicant has requested that 30 calendar days is replaced with 60 calendar days as they will require additional time to collate as constructed drawings and quality control records.	The delegated officer has changed the reporting period to 60 days, noting that time limited operations is restricted from starting until such time as the Environmental Compliance Report is submitted.
Condition 4 Table 2 Fugitive dust	The applicant requests the condition specifies dust carts or '*other appropriate dust control measures'*. As other methods maybe more appropriate depending on the dust source.	The delegated officer considers the proposed change achieves the same outcome and has changed the condition accordingly.
Condition 5 Table 3 Monitoring of discharges to air	The applicant provided a figure demonstrating the ambient air monitoring location and accepted the condition.	The delegated officer notes this and updated to Figure 3.
Condition 6 Table 4 Management actions	The applicants request to change 'investigation' with 'inspection' and add clarification for trigger exceedance actions such that they only apply if the works are identified as the source.	The proposed changes align with the condition intent therefore the delegated officer updated the condition accordingly.
Condition 9 Table 5 Time limited operations	Request that 'cracks' are removed as a crack may not impact on the ability of the bund to contain liquids and addition of "which may impact on the operability or containment" to the condition. Update that the hardstand wastewater is directed to sumps and to the ROCP1 not the filtrate tank. Applicant provided a figure outlining the hardstand.	The delegated officer considered the proposed changes achieve the outcome of maintaining bund integrity and altered the condition accordingly. Updates were also made to correct requirements relating to wastewater.
Condition 10 -12 Noise verification	Alcoa requested that noise verification be demonstrated through measurement of noise levels at RFP2 and modelling of received noise levels at receptors R3-R5	There is inherent uncertainty associated with modelling therefore monitoring provides greater certainty in outcomes. The application did not

Condition	Summary of applicant's comment	Department's response
	based on those measurements rather than monitoring at the receptors as noise levels are highly variable and influenced by weather conditions and other operations at the refinery.	provide any verification or calibration data which would provide greater level of certainty in the modelled outcomes. The delegated officer also noted some inconsistency in baseline noise levels presented in different NIA submitted to the department and was advised by the applicant the differences were due to changes to the noise model. Given this, the delegated officer considers noise verification monitoring at potentially impacted receptors is necessary to address uncertainties and provides for validation/calibration of the model predictions and actual received noise levels. It is expected that any factors or influencing variables which may impact monitoring results are detailed and explained in the Noise Verification Report. It is noted that the scope of the noise verification investigation and report specified in the works approval does not restrict the applicant from undertaking additional investigation or providing additional information or data which they consider is relevant to the department's assessment of the noise verification report.
Decision report comments received on 8 February 2024		
Section 2.4 Premises overview	Applicant confirmed 2018 was correct date for establishment of RFP1 Figure 1 was provided indicated hardstand.	Delegated officer notes comment and has updated Figure 1
Section 2.4.1 Construction and infrastructure	Applicant confirmed that infrastructure listed is correct and requested the volume and specifications of the tanks to be removed as this has yet to be determined.	Delegated officer notes this and has updated the list.
Section 3.1.2 Operation	The applicant confirmed that RFP2 listed noise controls will be implemented. The applicant is still yet to determine which noise control will be undertaken on existing infrastructure and requested removal of RFP1 noise controls to provide flexibility to implement noise controls which achieve no net increase in noise.	The delegated officer notes that the applicant has demonstrated that zero net noise emissions can be achieved through retrofitting RFP1 other areas within the premises and new infrastructure noise control works for RFP2. Requirements for RFP1 retrofitting will not be removed unless the applicant can provide alternative controls that can be conditioned and demonstrated through a noise modelling report. The department is required under its Guidance Statement-Condition Setting, that conditions are valid, enforceable, risk based, outcome-based, site specific, documented and justified. Flexibility that involves not providing details of noise controls does not align with the department's guidance statement. The delegated officer notes the issues around access and has updated wording to reflect the intent.
Section 4.1.1 Emission and controls Table 2 Proposed controls	Applicant requested that reference to retrofitting RFP1 building and RF1 transfer station and conveyor, as the applicant is still to determine where noise control reductions will occur. Fully cladding around RF2 is not possible for access and maintenance, the applicant requested that full cladding is replaced with acoustic panels.	
Section 4.1.1 Emission and controls	Applicant provided a map indicating where the dust monitoring location will occur and accepts the dust monitoring conditions. The applicant accepts the noise verification monitoring in the works approval.	The delegated officer notes this information and will update the dust monitoring site in the works approval.
Section 4.2 Risk rating Table 4	Applicant requested that RFP1 building and RF1 conveyor references are removed. That soundproof enclosure is replaced with noise enclosures, and soundproof panels is replaced with noise control panels.	The delegated notes this and does not agree. See the discussion above for Section 4.1.1, Table 2. The delegated officer notes the issues around access and has updated wording to reflect the intent.
Section 5 Consultation Table 5	The applicant indicated that the filtrate from the 6 filter presses will be collected by a central drain rather than sumps. The drain will gravity feed into sumps outside the building within a sealed and bunded hardstand.	The delegated notes this information and has updated the report.