Government of Western Australia
Department of Water and Environmental Regulation

Works Approval

Works approval number	W6621/2021/1
Works approval holder	Asphaltech Pty Ltd
ACN	064 520 869
Registered business address	416 Victoria Road MALAGA WA 6090
DWER file number	DER2021/000589
Duration	9/03/2022 to 8/03/2025
Date of amendment	2/09/2024
Premises details	Asphaltech Picton 2 Sutherland Way PICTON WA 6229 Legal description - Part of Lot 55 on Diagram 22200 Certificate of Title Volume 2119 Folio 623 As defined by the coordinates in Schedule 2: Premises boundary coordinates

Prescribed premises category description (Schedule 1, *Environmental Protection Regulations 1987*)	**Assessed production capacity**
Category 35: Asphalt manufacturing	Production capacity of not more than 437,000 tonnes per annual period Design capacity of 50 tonnes per hour
Category 61A: Solid waste facility	Production capacity of not more than 1,000 tonnes per annual period

This works approval is granted to the works approval holder, subject to the attached conditions, on 2 September 2024, by:

Caron Goodbourn

Digitally signed by Caron Goodbourn
Date: 2024.09.02 08:03:27 +08'00'

Manager, Process Industries

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

Interpretation

In this works approval:

(a) the words ‘including’, ‘includes’ and ‘include’ in conditions mean “including but not limited to”, and similar, as appropriate;

(b) where any word or phrase is given a defined meaning, any other part of speech or other grammatical form of that word or phrase has a corresponding meaning;

(c) where tables are used in a condition, each row in a table constitutes a separate condition;

(d) any reference to an Australian or other standard, guideline, or code of practice in this works approval:

  (i) if dated, refers to that particular version; and

  (ii) if not dated, refers to the latest version and therefore may be subject to change over time;

(e) unless specified otherwise, any reference to a section of an Act refers to that section of the EP Act; and

(f) unless specified otherwise, all definitions are in accordance with the EP Act.

NOTE: This works approval requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this works approval.

Works approval conditions

The works approval holder must ensure that the following conditions are complied with:

Construction phase

Infrastructure and equipment

1. The works approval holder must:

(a) construct and/or install the infrastructure and/or equipment;

(b) in accordance with the corresponding design and construction / installation requirements; and

(c) at the corresponding infrastructure location

as set out in Table 1.

Table 1: Design and construction / installation requirements

	Infrastructure	**Design and construction / installation requirements**	**Infrastructure location** **Premises map in Schedule 1: Figure 2**
1.	LPG fueled asphalt plant comprising: Cold feeder bins, including conveyor Dryer drum Burner Baghouse including stack Recovered fines silo Cold RAP feeding line into the mixer Mixing tower, hot elevator Shade cloth covered funnel extending 10 m past the drop shute Air compressor Electrically heated bitumen storage system Tunnel to screen the loading bay	The asphalt plant must have a design capacity of not more than 50 tonnes/hr Must be located on a bitumised hardstand area All exhaust gases from the rotary dryer and pugmill mixer must be directed to the baghouse. The pugmill mixer must be capable of being operated under a negative pressure which draws gases to the rotary dryer burner unit for destruction. The burner unit must be fitted with a silencer. The burner unit must be connected to the Process Control System which is programmed to monitor and manage temperature. Must be fitted with baghouse filter capable of reducing particulate emissions to less than 40 mg/m^3 Must be fitted with a waste gas extraction system from the dryer and the pug mill, that extracts the waste gases to the baghouse filter prior to release to atmosphere via a stack that has a minimum height of at least 13m above ground level. The stack is to be fitted with a sampling port that meets requirements of AS 4323.1. The stack must be designed and constructed to achieve an exhaust velocity not less than 12 m/s. Baghouse filter to be fitted with a device that accurately measures pressure differential across the filters.	Stack (A1 Discharge Point)

	Infrastructure	Design and construction / installation requirements	Infrastructure location Premises map in Schedule 1: Figure 2
		Fines silo sealed to prevent entry of water Fines silo must be equipped with a filtered air pulse system, and overfill alarm and or overfill vent pipe which directs vented material into a suitable container to prevent emissions to air Baghouse filter to be fitted with a means for automatically cleaning filter elements. All feeders/hoppers must have four sides and be fitted with wind shields.	
2.	Bitumised hardstand area	To cover all trafficable and production areas as depicted in in Figure 3 of Schedule 1 Hardstand area to be constructed of asphalt with a thickness of at least 40mm Graded and drained to enable stormwater to be directed to a double interceptor prior to either storage in a water tank for reuse or to the settling pond	As depicted in in Figure 3 of Schedule 1
3.	10 ground aggregate storage bays 2 RAP storage bins	Each storage bay must be constructed with three concrete walls and a bitumen or concrete base. A dust suppression sprinkler system must be installed on all storage bays	Ground Aggregate Storage Bins
4.	5 Cold feed bins	Bins must be fully enclosed and roofed and fitted installed with dust suppression water sprays.	Cold Feed Bins
5.	Silos - hydrated lime and baghouse fines storage	Silos to be fitted with a filtered air pulse vent system. Silos to be fitted with an overfill alarm and/or overfill vent pipe.	Lime Silo Return Fines Silo
6.	60,000L Closed bitumen storage tank	Located in an impervious bunded facility. The tank must be insulated and have a thermostatically controlled electrical heating system able to control the bitumen temperature between 150 – 180 °C.	Bitumen Tank
7.	Double interceptor (A2)	Containment structure made from concrete such that no water seeps through to ground. Minimum of 2 chambers with each a minimum size of 90cm x 90cm x 90cm.	Double Interceptor A2
8.	Drainage Retention Pond	Must be designed to receive and retain all wastewater from the double interceptor Must have a minimum capacity of at least 300,000 litres	Stormwater Drainage Retention Settling Pond

Compliance reporting

2. The works approval holder must within 60 calendar days of the infrastructure or equipment required by condition 1 being constructed and/or installed:

(a) undertake an audit of their compliance with the requirements of condition 1; and

(b) prepare and submit to the CEO an Environmental Compliance Report on that compliance.

3. The Environmental Compliance Report required by condition 1, must include as a minimum the following:

(a) certification that the infrastructure and/or equipment or component(s) thereof, as specified in condition 1, have been constructed in accordance with the relevant requirements specified in condition 1;

(b) as constructed plans and a detailed site plan for each item of infrastructure or component of infrastructure specified in condition 1; and

(c) be signed by a person authorised to represent the works approval holder and contains the printed name and position of that person.

Time limited operations phase

Commencement and duration

4. The works approval holder may only commence time limited operations for the infrastructure identified in condition 1 where the Environmental Compliance Report as required by condition 2 has been submitted by the works approval holder for all infrastructure.

5. The works approval holder may conduct time limited operations for the infrastructure specified in condition 1:

(a) for a period not exceeding 1 February 2025: or

(b) until such time as a licence for the infrastructure is granted in accordance with Part V of the *Environmental Protection Act 1986*, if one is granted before the end of the period specified in condition 5(a).

Time limited operations requirements and emission limits

6. During time limited operations the works approval holder must ensure that the premises infrastructure and equipment listed in Table 2 is maintained and operated in accordance with the corresponding operational requirements set out in Table 2.

Table 2: Infrastructure requirements during time limited operations

	Infrastructure	Operational requirement
1.	PG fueled asphalt plant comprising: Cold feeder bins, including conveyor Dryer drum Burner Baghouse including	Only to use LPG for the dryer burner All extracted waste gases to be filtered through the bag house filter prior to release into atmosphere Operated with a Process and Burner Control System that can prevent the generation of blue smoke. Bag house filter and broken bag detection system needs to be operational prior to firing up the burner of the dryer. Shade cloth covering the funnel to be maintained in an intact

	Infrastructure	Operational requirement
	stack Recovered fines silo Cold RAP feeding line into the mixer Mixing tower, hot elevator Shade cloth covered funnel extending 10 m past the drop shute Air compressor Electrically heated bitumen storage system Tunnel to screen the loading bay	condition to prevent dust escaping during loading. All bitumen handling equipment must be maintained in good condition to prevent leakage.
2.	Bitumen storage tank	The bitumen temperature shall be monitored via the Process Control System, which must be programmed to alarm at temperatures >180ºC.
3.	Raw material (sand, aggregate, unprocessed RAP and Processed RAP) storage bins	All trucks delivering aggregate must be kept covered until the point of unloading. Raw materials stockpiles are not to exceed the height of the walls of the bins. Sprinkler system to be operational to ensure no visible dust leaves the storage bays. In dry windy conditions the stockpile aggregate must be kept damp to reduce wind-blown dust both from the surface of the stockpiles and from the aggregate when being tipped into the cold feed bins
4.	Silos - hydrated lime and baghouse fines storage	Filtered air pulse vent system to be operational and operational during filling. The silo vent filter shall be inspected no less than once per month. The silo vent filter cartridge must be replaced if it is found to be blocked, damaged or leaking when inspected.
5.	Bitumised hardstand area	A road sweeper will be used to sweep roads and bitumised operational areas to prevent dust build up. Additives, including bagged fibre, pigment and bitumen modifier must be stored under cover to be protected from rain.
6.	Double Interceptor	Ensure that the entrance to the double interceptor is not blocked. Ensure that all wastewater passes through the double interceptor operates such that no visible hydrocarbons or sediments are released into the environment.

7. The works approval holder must ensure that the emissions specified in Table 4, are discharged only from the corresponding discharge point and only at the

corresponding discharge point location during time limited operations.

Table 3: Authorised discharge points

Emission	Discharge point	Discharge point height	Discharge point location
Particulate matter	Baghouse Exhaust Stack – A1	Minimum of 13 metres above ground level	As depicted in Schedule 1 – Figure 2 Stack (A1 Discharge Point)
Oxides of nitrogen			
Carbon monoxide			
Volatile organic compounds			
Sulfur dioxide			
Treated stormwater	Double Interceptor – A2	-	As depicted in Schedule 1 – Figure 2 Double Interceptor – A2

8. During time limited operations, the works approval holder must ensure that the emissions from the discharge point listed in Table 4 do not exceed the corresponding limit(s) when monitored in accordance with condition 9.

Table 4: Emission and discharge limits during time limited operations

Discharge point	Parameter	Limit[1, 2]
A1 - Bag house exhaust stack	Particulate matter	40 mg/m^3
	Exit velocity of exhaust gases	>12 m/s

Note 1: All units are referenced to STP dry
Note 2: Concentration units are referenced to 17% O_2

Monitoring during time limited operations

9. The works approval holder must monitor emissions in accordance with Table 5.

Table 5: Emissions and discharge monitoring

Discharge point reference	Parameter	Frequency	Reporting Units[1, 2]	Method Sampling
A1 – Bag house exhaust stack	PM	Once, within six weeks of commencing time limited operations	mg/m^3 and g/s	USEPA Method 5 or 17
	NOx			USEPA Method 7E
	CO			USEPA Method 10
	Total VOCs			USEPA Method 18
	Stack flow rate		m^3/s	USEPA Method 2
	Stack velocity		m/s	

Note 1: All units are to be referenced to STP dry.
Note 2: Concentration units are referenced to 17% O_2

10. The works approval holder must record the results of all monitoring activity required by condition 9.

11. The works approval holder must ensure that sampling required under condition 9 of this works approval is undertaken at a sampling location in compliance with the AS 4323.1.

12. The works approval holder must ensure that all non-continuous sampling and analysis undertaken pursuant to condition 9 is undertaken by a holder of a current accreditation from the National Association of Testing Authorities (NATA) for the methods of sampling and analysis relevant to the corresponding relevant parameter.

Acceptance and use of RAP during time limited operation

13. The works approval holder must only accept unprocessed or processed RAP that does not contain any of the following materials:

    (a) granular pavement materials, clay, soil or organic matter;

    (b) bricks, concrete, glass or building materials; or

    (c) laterite asphalt, tar-based products, geotextile fabrics, raised pavement markers or road surface treatments such as high friction surfacings or coloured pavement markings.

14. The works approval holder must not process RAP within the premises.

Compliance reporting

15. The works approval holder must submit to the CEO a report on the time limited operations within 30 calendar days of the completion date of time limited operations or 30 calendar days before the expiration date of the works approval, whichever is the earliest.

16. The works approval holder must ensure the report required by condition 15 includes the following:

    (a) a summary of the time limited operations, including timeframes, amount of asphalt produced and number of hours operated;

    (b) a summary of monitoring results obtained during time limited operations under condition 9;

    (c) a summary of the environmental performance of all infrastructure as constructed or installed (as applicable);

    (d) a review of performance and compliance against the conditions of the works approval; and

    (e) where conditions of this works approval have not been met, what measures will the works approval holder take to meet them, and what timeframes will be required to implement those measures.

Records and reporting (general)

17. The works approval holder must record the following information in relation to complaints received by the works approval holder (whether received directly from a complainant or forwarded to them by the Department or another party) about any alleged emissions from the premises:

    (a) the name and contact details of the complainant, (if provided);

    (b) the time and date of the complaint;

(c) the complete details of the complaint and any other concerns or other issues raised; and

(d) the complete details and dates of any action taken by the works approval holder to investigate or respond to any complaint.

18. The works approval holder must maintain accurate and auditable books include the following records, information, reports, and data required by this works approval:

(a) the works conducted in accordance with condition 1;

(b) any maintenance of infrastructure that is performed in the course of complying with condition 1;

(c) monitoring programmes undertaken in accordance with condition 9; and

(d) complaints received under condition 17.

19. The books specified under condition 18 must:

(a) be legible;

(b) if amended, be amended in such a way that the original version(s) and any subsequent amendments remain legible and are capable of retrieval;

(c) be retained by the works approval holder for the duration of the works approval; and

(d) be available to be produced to an inspector or the CEO as required.

Definitions

In this works approval, the terms in Table 6 have the meanings defined.

Table 6: Definitions

Term	Definition
AS4323.1-1995	means the Australian Standard: Stationary source emissions Selection of sampling positions (Reconfirmed 2014)
CEO	means Chief Executive Officer. CEO for the purposes of notification means: Director General Department administering the *Environmental Protection Act 1986* Locked Bag 10 Joondalup DC WA 6919 info@dwer.wa.gov.au
Department	means the department established under section 35 of the *Public Sector Management Act 1994* and designated as responsible for the administration of Part V Division 3 of the EP Act.
Environmental Compliance Report	means a report to satisfy the CEO that the conditioned infrastructure and/or equipment has been constructed and/or installed in accordance with the works approval.
EP Act	*Environmental Protection Act 1986* (WA).
EP Regulations	*Environmental Protection Regulations 1987* (WA).
mg/m^3	means milligrams per cubic metre
m/s	means metres per second
m^3/s	means cubic metres per second
premises	the premises to which this licence applies, as specified at the front of this licence and as shown on the premises map Figure 1 in Schedule 1 to this works approval.
prescribed premises	has the same meaning given to that term under the EP Act.
Processed RAP	means RAP which has been crushed and/or screened to size for recycling into new asphalt production
RAP	Reclaimed Asphalt Pavement
STP dry	means standard temperature and pressure (0ºCelcius and 101.3 kilopascals) dry
t/hr	means tonnes per hour
time limited operations	refers to the operation of the infrastructure and equipment identified under this works approval that is authorised for that purpose, subject to the relevant conditions.

Term	Definition
USEPA	means United States (of America) Environmental Protection Agency.
USEPA Method 2	means United States Environmental Protection Authority Method 2 – Determination of Stack Gas Velocity and Volumetric Flow Rate (Type S Pitot Tube)
USEPA Method 5	means the USEPA Method 5 - Determination of Particulate Matter Emissions From Stationary Sources.
USEPA Method 7E	means the USEPA Method 7E - Determination of Nitrogen Oxides Emissions From Stationary Sources (Instrumental Analyzer Procedure).
USEPA Method 10	means the USEPA Method 10 - Determination of Carbon Monoxide Emissions From Stationary Sources (Instrumental Analyzer Procedure).
USEPA Method 17	means the USEPA Method 17 - Determination of Particulate Matter Emissions From Stationary Sources.
USEPA Method 18	means the USEPA Method 18 - Measurement of Gaseous Organic Compound Emissions By Gas Chromatography.
works approval	refers to this document, which evidences the grant of the works approval by the CEO under section 54 of the EP Act, subject to the conditions.
works approval holder	refers to the occupier of the premises being the person to whom this works approval has been granted, as specified at the front of this works approval.

END OF CONDITIONS

Schedule 1: Maps

Premises map

The boundary of the prescribed premises is shown in yellow in the map below

Figure 1: Map of the boundary of the prescribed premises

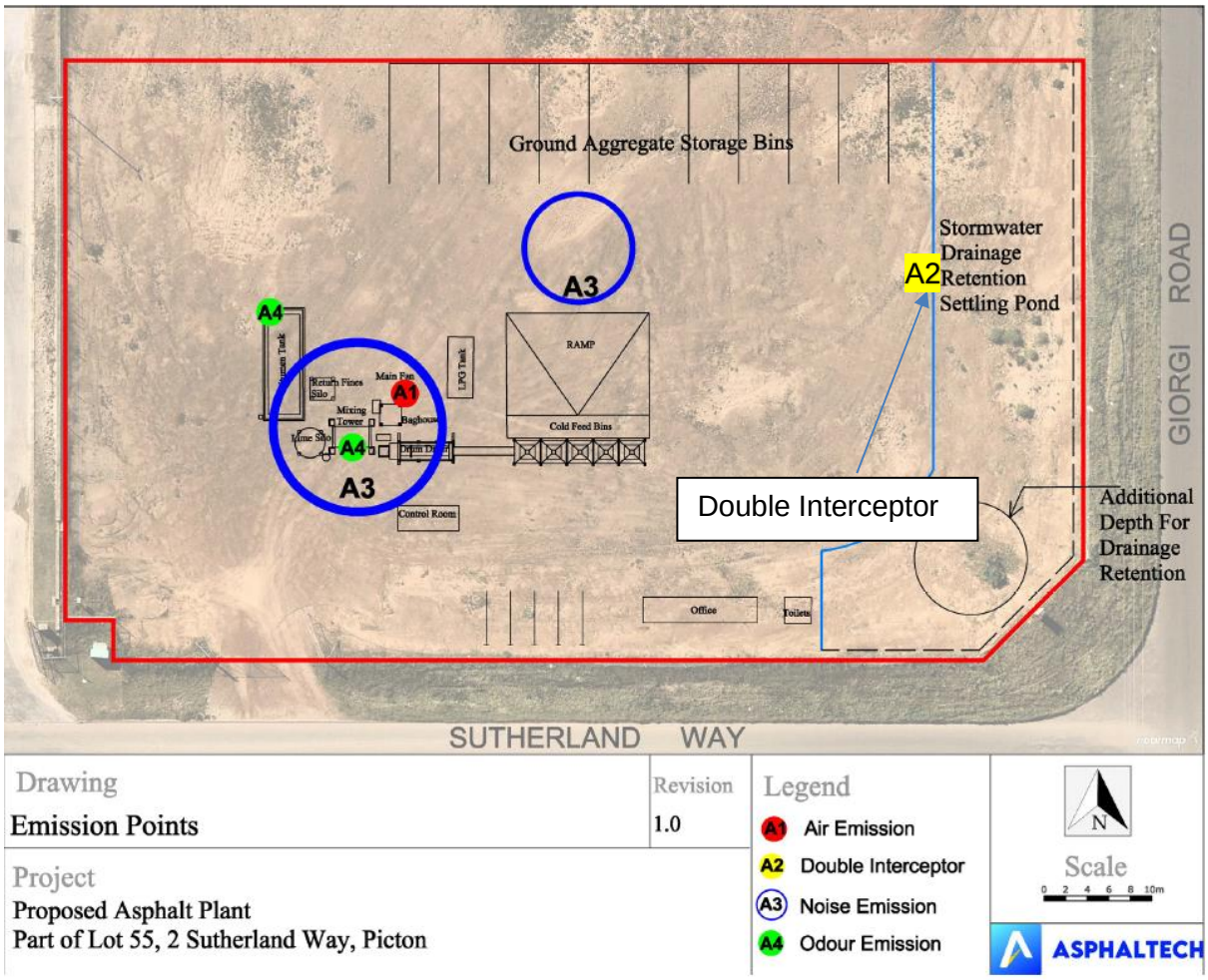

Figure 2: Premises map with authorised emission to air points and plant layout

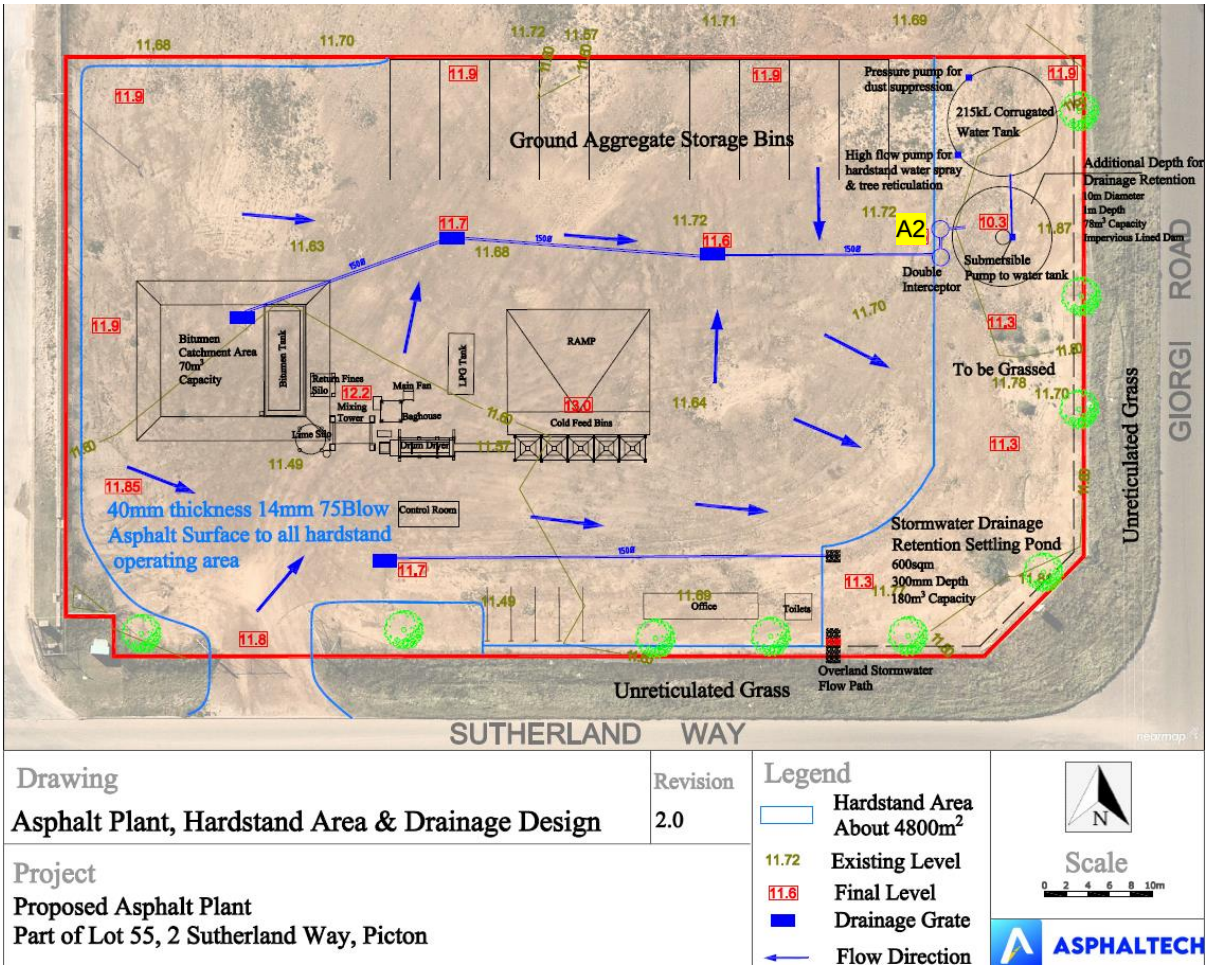

Figure 3: Premises hardstand area

Schedule 2: Premises boundary coordinates

The premises boundary is defined by the coordinates (GDA 2020 Zone 50) in Table 7.

Table 7: Premises boundary coordinates

Easting	Northing
379756.55	6310170.99
379858.53	6310172.09
379859.07	6310122.11
379849.18	6310112.00
379762.00	6310111.06
379761.93	6310115.05
379757.13	6310115.01