Decision Report

Application for Works Approval

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

Works Approval Number	W6938/2024/1
Applicant	Strike South Pty Ltd
ACN	660 147 526
File number	DER2024/000201
Premises	South Erregulla Processing Facility and Power Station 1719 Tomkins Road ARROWSMITH EAST Legal description Part of Lot 10710 on Deposited Plan 209764 As defined by the coordinates in Schedule 2 of the works approval
Date of report	8 July 2025
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 the premises. As a result of this assessment, works approval W6938/2024/1 (W6938) has been granted.

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 https://www.wa.gov.au/service/building-utilities-and-essential-services/integrated-essential-services/dwer-regulatory-documents.

2.2 Application summary

On 9 May 2024, Strike South Pty Ltd (the applicant, Strike) 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 and time limited operation relating to a gas processing facility and peaking power station located at 1719 Tomkins Road, Arrowsmith East (the premises). The premises is approximately 35 km south-west of Minegenew in the Shire of Three Springs.

The premises relates to the categories and assessed design capacity under Schedule 1 of the *Environmental Protection Regulations 1987* (EP Regulations) which are defined in works approval W6938. The infrastructure and equipment relating to the premises category and any associated activities which the department has considered in line with *Guideline: Risk Assessments* (DWER 2020) are outlined in works approval W6938.

2.3 Exclusions

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

- disposal of wastes - including municipal waste and construction wastes at locations outside the premises boundary;
- concrete batching - where batching is conducted on the premises for use on the premises the premises is not subject to Part V of the EP Act however the requirements of the Environmental Protection (Concrete Batching and Cement Product Manufacturing) Regulations 1998 apply to the activity;
- preparatory works, such as clearing, levelling and construction of access roads, carparks, laydown areas, office buildings, and construction of hardstands for use in construction works; and
- fire response infrastructure including tanks and pumps.

The works approval is related to category 10 and category 52 activities only and does not offer the defence to offence provisions in the EP Act (see s.74, 74A and 74B) relating to emissions or environmental impacts arising from non-prescribed activities, including those listed above

The delegated officer noted that the applicant proposes to maintain greenhouse gas (GHG) Scope 1 and Scope 2 emissions below 100,000 CO2-e. The delegated officer did not further consider GHG emissions as they were considered by the Environmental Protection Authority

for the referred proposal (refer to section 4.1) and are beyond the current scope of the department's published risk-based regulatory framework for assessment and regulation under Part V of the EP Act.

3. Premises overview

The applicant proposes to construct the South Erregulla Conventional Gas and Power Development within an area previously cleared for agriculture in the Shire of Three Springs. The premises will comprise one free-flowing, conventional gas well (South Erregulla 1, SE01), a gas production facility (gas conditioning unit), a gas peaking power station with a maximum export capacity of 90 MW with connection to a substation, and flowlines connecting the well to the production facility and the production facility to the power station. Produced power will be transmitted from the premises to the existing Western Power network approximately 15 km away.

The applicant advised that no hydraulic fracture stimulation is proposed on the premises as the South Erregulla Gas Field is free-flowing. The production facility is proposed to have a maximum export capacity of approximately 4 TJ of natural gas per day (annualized) and is expected to have an operational life of approximately twenty years following commissioning of the infrastructure.

The SE01 well pad has already been constructed on the premises under *Petroleum and Geothermal Energy Resources Act 1967* approval and comprises a well head, turkey's nest and drilling sump (HDPE lined), a solar and battery array skid with communications unit and a corrosion inhibitor pump, a corrosion inhibitor skid and a portable methanol injection skid for start-up. Methanol injection will be used to inhibit hydrate formation in the cooled gas during well cold start-up and corrosion inhibitor injection will provide corrosion control.

The gas production facility, flowlines and power station will be constructed under the authorisation of the works approval.

3.1 Gas production facility

The production facility will comprise of the following infrastructure:

- bulk liquids removal vessel
- filter coalescers
- enclosed ground flare
- condensate flash vessel
- knockout drum
- water bath heater
- condensate storage tank
- portable methanol injection skid
- chemical injection skid
- corrosion inhibitor skid
- produced water evaporation pond
- solar/battery array skid with communications unit.

Raw gas will be extracted from the SE01 well and transferred via a flowline to the gas production facility. At the production facility the gas will undergo two-phase separation into process gas and free fluids/liquid at a bulk liquids removal vessel. The separated free fluids/liquid will be directed to a 3-phase condensate flash vessel where they will undergo

further separation into condensate, water, and vapour. The process is not expected to generate condensate as a by-product based on the gas composition however should small volumes be produced it will be stored for use on the premises or removal from site for sale to other users. Separated water will be directed to a produced water evaporation pond and the lightest gaseous fraction will be directed to an enclosed ground flare for combustion.

The separated process gas stream will be cooled and dew-pointed to achieve the required specification. The dew-pointed gas will be supplied to the Power Generation Facility via an underground flowline. The flowline will also act as a gas storage buffer to allow the start-up of the power generators while the SE01 well and processing facility are restarted.

Emergency depressurization (over pressure protection) of the gas production facility will be to a vent knock-out vessel and an enclosed ground flare. Flaring from the facility will result in discharge of methane, carbon dioxide (CO_2), volatile organic compounds (VOCs), sulfur compounds and gas impurities to the atmosphere. The applicant advised flaring will be limited to the following scenario:

- Discharge of a minor continuous volume from the condensate flash vessel for condensate stabilization and purge when the well is online.
- Blowdown of the production facility inventory (9.265 m^3) when it is required to be shut-down due to maintenance, inspection and/or emergency.
- Pressure safety valve activation in abnormal operating conditions (i.e. high pressure reading).

No power from power station will be required at the well; the local solar unit will provide independent power. The facility will be controlled locally by a standalone process control system (a programmable logic controller, PLC) and a separate Safety Instrumented System. The system will allow for monitoring and control of the facility at the site, or from Strike's Perth Operations Centre.

Commissioning

The applicant proposes to undertake environmental commissioning of the premises over a nominal sixty-day period. Infrastructure will be hydrotested and nitrogen purged prior to commissioning commencing. Hydrotesting water will be disposed to the evaporation pond after use.

During environmental commissioning hydrocarbon gas will be introduced into the production facility and will be flared. The commissioning activities will include:

- Hydrocarbon pressurisation / evacuation of N2 system leak checks.
- Complete system leak checks (no venting).
- Flow Walyering-05 SE01 well to achieve operating temperatures and flowrates.
- Full facility operational checks.
- Pressurisation, restart and flow check prior to export.

Based on expected duration and flaring rates for the above activities the applicant estimates commissioning of the facility will require approximately 6.25 hours of flaring, and result in combustion of approximately 49 tonnes of gas via the flare.

3.2 Evaporation pond design

An evaporation pond will be constructed for disposal of produced water. It will also be used for evaporation of stormwater collected within containment bunds on the premises. Produced water is expected to contain elevated levels of hydrocarbons, and heavy metals including

arsenic, lead, nickel and zinc. The applicant proposes to line the pond with a minimum 0.75 mm high density polyethylene (HDPE) liner to prevent seepage of the contaminated water.

The evaporation pond has been designed with sufficient capacity to evaporate the annual expected volume of produced water (7.5 m^3/day) and rainfall inputs (direct and from bund water). In addition, it will have sufficient capacity to accommodate a 1 in 100 year 24 hour Annual Return Interval (ARI) rainfall event while maintaining a freeboard of 0.5 m.

The applicant provided a pond sizing calculation to demonstrate the pond has adequate capacity for the annual expected inputs. Based on the calculations and pond design details provided, the evaporation pond will require a minimum depth of 1.5 m and a minimum surface area of 2,027 m^2 to accommodate expected annual inputs.

3.3 Power generation facility

The power station will be established as a peaking station which will convert the conditioned South Erregulla gas into 90 MW of electricity. It will comprise the following infrastructure:

- power station building
- water bath heater
- 20 x 4.5MW medium speed reciprocating gas engines within an engine hall
- pressure control skid
- 2 x 11kV switch rooms
- 4 x transformers
- storage shed and workshop
- connection facilities to the Western Power grid.

The generators will be installed on a bunded concrete pad within an engine hall style shed structure. An underground flowline will deliver fuel gas from the gas production facility to the generators.

The power output from the generators will be fed to two switch rooms, from there, the internal controls will transmit the power to a dual transformer arrangement on the project boundary, which will step the power voltage up to 132 kV for transmission to the Western Power network.

The power generation facility will have a standalone process control system that controls the engines and includes fault monitoring and fire detection on each engine. The engine hall will have a fire detection system that feeds into the control system and can trigger engine shutdown and fire suppression. The process control system will allow for monitoring and control of the facility at the site or from Strike's Perth Operations Centre.

Oil spills/leaks and hydrocarbon contaminated washdown from engine maintenance and power station cleaning requirements will be generated during operation of the power station. Free liquids will be directed into and captured by a collection trench running the length of the engine hall. Wastewater will be pumped into 1 kL intermediate bulk containers (IBC) in the powerhouse as required, to be disposed offsite to a licenced facility. Engine oil, waste oil and coolant will be stored in 1 kL IBC within the powerhouse

4. Other approvals

4.1 Part IV of the EP Act

The South Erregulla Conventional Gas Development project was referred to the Environmental Protection Authority (EPA) by Strike under Part IV of the EP Act on 31 March

2023. The EPA examined the referral and conducted preliminary investigations and inquiries. On 7 November 2023, the EPA determined, that the proposal would not to be assessed under Part IV of the EP Act (CMS number: APP- 0000323,).

The EPA considered that the environmental impacts of the proposal are manageable and do not warrant a formal assessment. The EPA's decision was based on several key observations: the project is situated in an area that has been previously disturbed, there is no need to clear native vegetation, and the project's scope 1 and 2 greenhouse gas (GHG) emissions are below the annual threshold of 100,000 CO_2-e.

The EPA consider the potential impacts of the proposal can be mitigated by the following statutory decision-making process:

- Department of Water and Environmental Regulation – Part V of the *Environmental Protection Act 1986* – Division 3 – Prescribed Premises, Works Approval and Licence.
- Department of Mines, Industry Regulation and Safety – *Petroleum Pipelines Act 1969*, *Petroleum and Geothermal Energy Resources Act 1967* – Environment Plan, Oil Spill Contingency Plan, Field Management Plan, Well Management Plan, Pipeline Licence, Production Licence.
- Department of Mines, Industry Regulation and Safety – Dangerous Goods Safety (Storage and Handling of Non-explosives) Regulations 2007 – Dangerous Goods Storage and Handling Licence.

It is noted that the power generation facility has been incorporated within the development envelope of the South Erregulla Conventional Gas Development proposal. The applicant advised that GHG emissions will be maintained conservatively below the 100,000 CO2-e threshold and that given the Project does not impact any Key Environmental Factors, a subsequent referral under Part IV of the EP Act is not required.

4.2 Rights in Water and Irrigation Act 1901 (RIWI Act)

Strike Energy has a 5C groundwater abstraction licence GWL 206386 for an existing extraction bore located in proximity to the gas extraction infrastructure. Water for hydrotesting of the infrastructure and for operation of the gas production and power generation facilities will be sourced from this bore. The applicant advised that the extraction licence will be updated if needed.

4.3 Department of Energy, Mines, Industry Regulation and Safety (DEMIRS)

In Western Australia, all onshore petroleum exploration and development activities are subject to approval by DEMIRS. Gas gathering (extraction wells), and gas transfer and export activities (pipelines) are subject to approval requirements under the following legislation administered by DEMIRS:

- *Petroleum and Geothermal Energy Resources Act 1967* (PGER Act);
- Petroleum and Geothermal Energy Resources (Environment) Regulations 2012 (PGER Regulations);
- *Petroleum Pipelines Act 1969* (Pipelines Act); and
- Petroleum Pipelines (Environment) Regulations 1969 (Pipeline Regulations).

In accordance with this legislation, oil and gas operators must obtain Petroleum Pipeline and Petroleum Production licences and submit an Environment Plan (EP) to DEMIRS for approval. An EP is a management document designed to demonstrate that all environmental risks and impacts associated with a petroleum activity are reduced to As Low As Reasonably Practicable

(ALARP), and at all times carried out in a manner consistent with the principles of ecologically sustainable development.

DEMIRS reviewed the application and provided the following comments on 30 October 2024.

- Strike South Pty Ltd (the applicant) holds Production Licence L 24 and Pipeline Licence PL 133 which relate to the application.
- The applicant has not yet submitted an EP relating to the proposal to DEMIRS.
- Without pre-empting the outcome of EP assessments, DEMIRS considers that the environmental risks associated with the construction, commissioning and operation of the flowlines and extraction well can be appropriately managed under DEMIRS administered legislation, for example, the PGER Regulations.
- DEMIRS considers the application to be broadly consistent with good practice requirements in the petroleum industry and notes that appropriate engineering controls have been described that reflect the requirements in relevant Australian/New Zealand Standards.
- The field and the wells will be required to meet the requirements for Field Management Plans and Well Management Plans under the Petroleum and Geothermal Energy Resources (Resource Management and Administration) Regulations 2015.
- The wells and flowlines will be required to have an approved Safety Case in accordance with the Work Health and Safety (Petroleum and Geothermal Energy Operations) Regulations 2022.
- There are various other requirements, approvals and consents pursuant to the PGER Act that the applicant will need to obtain and/or comply with at various times over the life of the premises, including a production licence. DEMIRS is in regular communication with the applicant regarding such requirements.
- In Table 2.1 of the application, it states that the *"construction, commissioning and operations of the wellheads, gas conditioning unit, flowlines, and power station"* will be regulated under the PGER Regulations, however this statement is not accurate regarding the power station. The power generation facilities associated with the proposal are not regulated under the PGER Act and its associated regulations. DEMIRS has sent advice to the applicant to this effect, advising them to review the other legislative requirements in WA such as under the *Electricity Industry Act 2004* or the *Electricity Act 1945*.
- The applicant holds Pipeline Licence PL 133. This licence is for a petroleum pipeline that would convey gas (after processing at the South Erregulla Processing Facility) via the Dampier to Bunbury Natural Gas Pipeline. However, DEMIRS' understanding is that the applicant may not construct this petroleum pipeline if the described South Erregulla Power Station proceeds, because Strike may use the gas at the power station for electricity generation and export the electricity to the grid instead.
- In section 2.1.3 of the application, it implies that development approvals are not required, however, it is not explicit what development approvals under what legislation this statement relates to. DEMIRS does not administer these approvals.

NOTE: *In accordance with the department's published regulatory framework the delegated officer has considered the legislative context of the South Erregulla Conventional Gas and Power Development and determined that DEMIRS is the lead agency responsible for the regulation of activities associated with gas extraction and transport. In order to avoid regulatory duplication, the delegated officer determined not to undertake detailed assessment of public health and environmental risks associated with the construction, commissioning and operation of the gas gathering and transfer infrastructure (i.e. extraction well and flowlines) as it is considered that risks will be adequately assessed and regulated through the DEMIRS administered legislation and assessment processes described.*

4.4 Planning approval

The Shire of Three Springs was contacted in relation to the application for South Erregulla Processing Facility and provided the following comments on the 16 July 2024:

- The current zoning of the proposed site, being Lot 10710 (DP209764) Tomkins Road, Arrowsmith East, under the Shire of Three Springs Local Planning Scheme is "Rural"
- The proposed development of a gas processing facility and power station would meet with the land use definition of "industry: as defined under the *Planning and Development (Local Planning Schemes) Regulations 2015.*
- The proposed development would therefore require a scheme amendment to be prepared for it able to be considered for approval
- An alternative pathway of approval for the applicant is lodging a significant development application to the Department of Planning Lands and Heritage (DPLH) Significant Development Assessment Unit.
- At the date of the correspondence the Shire of Three Springs had not received either a Scheme Amendment application, or a notification from DPLH of a significant development pathway application.

The granting of this works approval does not imply any authority for other statutory approvals required and the applicant must ensure they seek all required approvals necessary for the operation of the premises. The applicant advised development approval has been provided by the local government and the Development Assessment Panel.

5. Air emissions

5.1 Gas production facility

Flaring of process gas will occur via the enclosed ground flare during commissioning and usual operation of the South Erregulla Production Facility (refer to section 3.1 for further details). The applicant provided details of expected NOx and Benzene emission rates as well as details of expected flaring timeframes for commissioning and operational scenarios.

The applicant did not assess flare emission using a screening assessment as this does not account for the significant plume rise and dispersion generated from the flaring activity. The applicant advised that the high temperature of the flare and rapid plume rises causes efficient dispersion of combustion gases, reducing ground level concentrations (GLC) of pollutants such as benzene and NOx.

Estimated NOx emissions from flaring is 2.6 g/s which the applicant considers relatively insignificant compared to the NOx emissions of the power station of 1.69 g/s per generator, equating to a total of 33.8 g/s if all 20 generators are operating at any one time. Estimated Benzene emissions from flaring is 0.003 g/s

The applicant concluded that the likelihood of elevated GLC occurring at sensitive receptors during flaring is low due to the short duration and infrequent nature of flaring events. The applicant noted that:

- The NO_X emissions from flaring are relatively insignificant compared to those from the peaking power station generators, with an expected emission rate of 2.6 g/s of NO_X during the commissioning period and operation. Efficient dispersion due to rapid plume rise is expected to result in negligible increased in GLC at receptors given the separation distance.
- Flaring is not expected to coincide with the operation of the power plant given the low frequency of events expected and peaking nature of the power station, therefore cumulative air quality impacts are not expected to occur.
- Flaring events during commissioning will be no longer than two hours in duration.
- Flaring during operation is expected to occur for less than 15 minutes per year to prevent overpressure, or during inventory blow-down in emergency or major maintenance events.
- Routine inspection and maintenance do not require flaring.

The delegated officer agreed that further assessment was not required given the infrequent occurrence and short-term nature of peak flaring events and the separation distance to receptors.

5.2 Power generation facility

Strike provided an air quality assessment (AQA), *South Erregulla Peaking Power Plant Strike South Pty Ltd Air Emissions Assessment* (JBS&G 2024), to inform the risk assessment of air emission impacts to sensitive receptors. The report presented the outcomes of modelling of the power station emissions undertaken using the AERMOD model. A single scenario of full load operation of all 20 4.5 MW gas generator sets was modelled. Generators were assumed to operate continuously although they will typically only run in response to a high electricity demand which is expected to occur in the late afternoon/evening periods. The modelling is therefore considered likely to be conservative. A cumulative assessment of emissions was not undertaken due to the absence of nearby monitoring stations and other approved industrial premises in proximity.

National Pollutant Inventory emission factors for combustion engines were adopted to develop an emissions inventory for air quality modelling. The modelling was used to predict GLC across the model domain and compare these to relevant air guideline values (AGV). Model results are presented in Table 1 below for predicted nitrogen dioxide (NO_2) GLC at the nearest sensitive receptors in proximity to the premises. NO_2 is considered the emission of greatest significance in respect to air guideline values at receptors. Information on the location of the closest sensitive receptors is included in section 6.1.2.

Table 1: Modelled NO_2 ground level concentrations at the nearest receptors

Emission	Averaging period	AGV[1] at 25°C	Receptor	Predicted GLC µg/m^3	Percentage of AGV
NO_2	1-hour	150 µg/m^3	R1	92.4	62%
			R2	85.4	57%
			R3	148.8	99%
			R4	78.5	52%
	Annual	28 µg/m^3	R1	1.3	4.8%

Emission	Averaging period	AGV[1] at 25°C	Receptor	Predicted GLC µg/m^3	Percentage of AGV
			R2	0.7	2.6%
			R3	1.8	6.3%
			R4	0.6	2.2%

NOTE 1: AGV are taken from the *National Environment Protection (Ambient Air Quality) Measure (NEPM) (NEPC, 2024*)

In reviewing the modelling, it is noted that at the closest sensitive receptor (R3) the 1 hour maximum of NO_2 was 99% of the NEPM 1 hour guideline.

Model results are presented in Table 2 below for select principal and individual toxic pollutants which modelling predicts the maximum predicted GLC in the model domain exceeds AGV .

Table 2: Modelled principal and individual toxic pollutant ground level concentrations at the nearest receptors

Emission	Averaging period	AGV[1] at 25°C	Predicted GLC µg/m^3				Percentage of AGV %			
			R1	R2	R3	R4	R1	R2	R3	R4
Formaldehyde	1-hour (max)	20 µg/m^3	14.6	13.5	24	12.4	73	68	118	62
	1-hour (99.9%)		6.8	6.3	9.0	6.9	34	32	45	35
1,3 butadiene	24 hour (max)	0.27 µg/m^3	0.0091	0.0085	0.013	0.007	3.4	3.2	4.9	2.5
	Annual	0.027 µg/m^3	0.0011	0.0006	0.0014	0.0005	4.0	2.2	5.2	1.8
Cadmium (Cd)	1-hour (max)	0.018 µg/m^3	0.0016	0.0014	0.0025	0.0013	8.7	8.0	14.0	7.4
	1-hour (99.9%)		0.0007	0.0007	0.0010	0.0007	4.1	3.8	5.4	4.1

GLC at the nearest sensitive receptors are met with the exception of formaldehyde which the predicted maximum GLC exceeds the 1-hour criteria at R3.

It is noted that R3 is located on land owned by the applicant and will only be intermittently occupied by employees of the applicant. The applicant considers exposure risks can be managed by occupational health and safety measures.

Predicted GLC are based on modelling of emissions for the entire year, which does not reflect the proposed operation of the plant. The applicant advised the engines are expected to operate at times when outputs from solar and wind farms are reduced and peak electricity demand occurs, anticipated to be in the order of four hours per day, typically in the late afternoon and into the early evening. The power station will also operate for several hours per month for maintenance and testing. The applicant considers the likelihood of coincident occurrence of unfavorable meteorology for dispersion of emissions (such as inversion events that occur in early mornings) and periods when the engines are operating (in the late afternoon) is low and that the modelling results represent conservative predictions of air quality impact at receptors.

6. 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.

6.1 Source-pathways and receptors

6.1.1 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 3 below. Table 3 also details the control measures the applicant has proposed to assist in controlling these emissions, where necessary

Table 3: Proposed applicant controls

Emission	Sources	Potential pathways	Proposed controls
Construction			
Potentially contaminated hydrotest water	Hydrotesting of gas processing equipment and flowlines	Direct discharge	• Hydrotesting water will be disposed to the premises evaporation pond following use.
Noise Dust	Site preparation and earthworks, movement and operation of vehicles and equipment on unsealed surfaces and the erection of structures.	Air / windborne pathway	• Dust suppression via water carts. • Site speed limits. • Vehicles are restricted to designated roads and tracks. • Visual monitoring of dust. • Implementation of Dust Management controls within the Environmental Plan. • Appropriate selection and use of vehicles and equipment. • Implementation of Noise and Vibration Management controls within the Environmental Plan.
Commissioning and Operation			
Chemical and hydrocarbons and wastewater contaminated with these	Hydrocarbon storage for operation of the gas powered generators Condensate flash vessel, storage tank and the knock out drum Transformers	Direct discharge	• Waste oil, coolant and lubrication oil will be housed within the power station building. • The power station transformers will be contained within a bunded area. • Corrosion inhibitor, methanol and chemicals for injectionwill be stored within self-bunded skids. • Spills within or outside of bunds/pads (outside the power generation building) will be cleaned up using normal spill management processes. • All wastewater resulting from the operational tasks within the power station will be directed into and captured by a collection trench running the length of the power station and will be pumped into 1 kl IBCs stored within the power station before being trucked offsite for disposal. • Condensate separated from the process gas stream, will be stored in a designated self-bunded tank for use at the processing facility or to be sold to other users. • To avoid loss of containment from condensate storage tank or during offloading, the tank will be located in concrete bund in accordance with relevant bunding requirements and Dangerous Goods

Emission	Sources	Potential pathways	Proposed controls
	The storage, use and transfer of chemicals and hydrocarbons (including condensate, oil and waste oil, corrosion inhibitor and methanol)		Storage Licence (i.e., *AS 1940-2004 The storage and handling of flammable and combustible liquids*). • The condensate tank will be fitted with appropriate level sensors (e.g., high and high-high), automatic shut-off valves to prevent overfilling and automatic cut-off valves during tanker transfer. • Waste hydrocarbons and hydrocarbon contaminated waste materials will be segregated from other wastes and collected for offsite disposal by a licensed contractor.
Noise	Operation of: Gas Fired Engines Compressors Pumps	Air / windborne pathway	• The gas-powered generators will incorporate exhaust mufflers and other sound attenuating measures. • The gas-powered generators will be housed in a dedicated enclosed building.
Volatile organic compounds (BTEX)	Commissioning and operation of the South Erregulla gas production facility	Air / windborne pathway	<u>Commissioning</u> • Infrastructure will be hydrotested (water and nitrogen) prior to commissioning to confirm integrity prior to the introduction of hydrocarbons into the system. • Flaring during commissioning will be over a maximum of two hours per event over a total of five days only. Total volume of gas vented during commissioning is predicted to be 49 tonnes. • Blowdown is not automatic and must be initiated manually, therefore will be a planned event. • Commissioning will be undertaken in accordance with a Commissioning and Operations Environment Plan, subject to review and approval by DEMIRS • Commissioning of the facility will be a manned activity. <u>Operation</u> • A PLC will be installed for operation and monitoring of the production facility. The PLC has the ability to control and implement an emergency shut-down (ESD) in the event communication with the Perth Operations Centre is lost. • The PLC will be programmed to respond to command and ESD signals locally from the plant as well from an operations centre located in Perth. • A local ESD button will be installed to provide shut-down capability separate from the PLC.

Emission	Sources	Potential pathways	Proposed controls
			• The gas production facility has been designed to reduce inefficiencies and maximise hydrocarbon recovery – flared gas will be minimised; • The gas production facility has been designed with simple equipment and no rotating parts to maintain high uptimes and reduce flaring during shutdown and start-up scenarios. • ESD will be initiated in the event of process upsets based on pre-defined limits for pressure, flow-level and temperature. Expected frequency once the plant is in steady state operation is once per year for 15 minutes. • Flaring will be undertaking using an enclosed ground-based flare located in a flare pit • Flaring is limited to minor continuous volumes from the condensate flash vessel for condensate stabilisation and purge, PSV activation to protect against overpressure (which would result in full inventory blow-down) and inventory blow-down during emergency or maintenance events only. • Flaring is only required for major maintenance events and not for routine inspection and maintenance. • Performance criteria for shut down valves (SDV) performance minimises available gas inventory required to be blown down. • During a manual or facility-initiated ESD, the SDV that are situated strategically around the facility will shut causing it to hold the current inventory until it is either blown down for inspection and/or maintenance or the facility re-started (composition of an inventory blowdown is expected to resemble the composition of Flashed Gas capacity of 9.265 m^3).
Gases from fossil fuel combustion (NOx, CO, SO2, PM))	Operation of the gas-powered generators.	Air / windborne pathway	• Modern efficient engines with low emissions profile. • The gas powered generators will be maintained and serviced at regular intervals designated by their manufacturer to ensure efficient operation and optimum fuel consumption. • Gas generator stacks will have a height of approx. 10 metres above ground level.

Emission	Sources	Potential pathways	Proposed controls
Produced water	Evaporation pond	Direct Discharge	• Produced water will be disposed to an evaporation pond will be lined with a minimum 0.75mm HDPE liner to prevent seepage. • The pond has been designed to have a minimum depth of 1.5 m to ensure the pond is able to maintain sufficient freeboard of 0.5 m in a 1:100 24 hour ARI rainfall event. • The pond has been designed with sufficient capacity to evaporate inputs (produced water and stormwater) on an annual basis. • • The pond will include a water level meter and CCTV to allow operators to monitor the pond. Monitoring is proposed once per week given the depth to groundwater and evaporation rates. Monitoring will increase to daily during anticipated high rainfall periods. Based on expected evaporation rates, if more than 0.5 m water level drop is observed in the pond over 7 days, or more than 0.25 m drop per week over four weeks, monitoring will increase to daily and if it continues to drop a site inspection will be undertaken to assess liner integrity. • In the event of high rainfall, the evaporation pond levels can be reduced by trucking off site for disposal in a suitably qualified facility.
Contaminated storm water	Operation of gas powered generators, condensate flash vessel and storage tank The storage, use and transfer of chemicals and hydrocarbons (including condensate, oil, waste oil and hydrocarbon contaminated waste).	Direct discharge	• Hydrocarbons will be stored in bunded areas or self-bunded tanks (including condensate). • The gas-powered generators will be housed within an enclosed building with concrete foundations built 100 millimetres above ground level therefore will not generate contaminated stormwater. • Drainage valves will be installed in concrete bunds at the premises. Accumulated storm water will be disposed of during routine inspections, if signs of contamination are seen contaminated water will be pumped to IBCs for offsite disposal by a licensed waste water contractor. If no contamination is seen then accumulated stormwater will be discharged to grade. • Waste oil, engine oil, coolant and power station wastewater will be stored within 1 kL IBC within the power station building.

6.1.2 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 4 and Figure 1 below provides a summary of potential human and environmental receptors that may be impacted as a result of activities upon or emissions and discharges from the prescribed premises *(Guideline: Environmental Siting* (DWER 2020)).

Table 4: Sensitive human and environmental receptors and distance from prescribed activity

Human receptors	**Distance from prescribed premises**
Rural residence 1	~4.7 km to the north-east
Rural residence 2	~5.5 km to the east
Rural residence 3 (owned by Strike Pty Ltd)	~2 km to the east
Rural residence 4 (uninhabited)	~4.2 km to the south-west
Environmental receptors	**Distance from activity / prescribed premises**
Threatened and Priority Flora – Threatened Vulnerable	~1.5 km to the east
TEC – assemblages of organic mounds springs of the Three Springs area	~2 km to the east
Threatened Fauna - Endangered	~4.4 km east-north-east
Arrowsmith River	~9.5 km east of the prescribed premises to nearest point
Minor water course – non-perennial	~3 km east
Groundwater - Arrowsmith Groundwater Area	The upper water table in the Yarragadee Formation is generally expected to be around 75 m to 80 m below ground level (DoW 2017), but likely to be more than 100 m below ground level in the Arrowsmith region. Groundwater in the Yarragadee Formation has a multilayered flow system and generally moves downwards and to the southwest

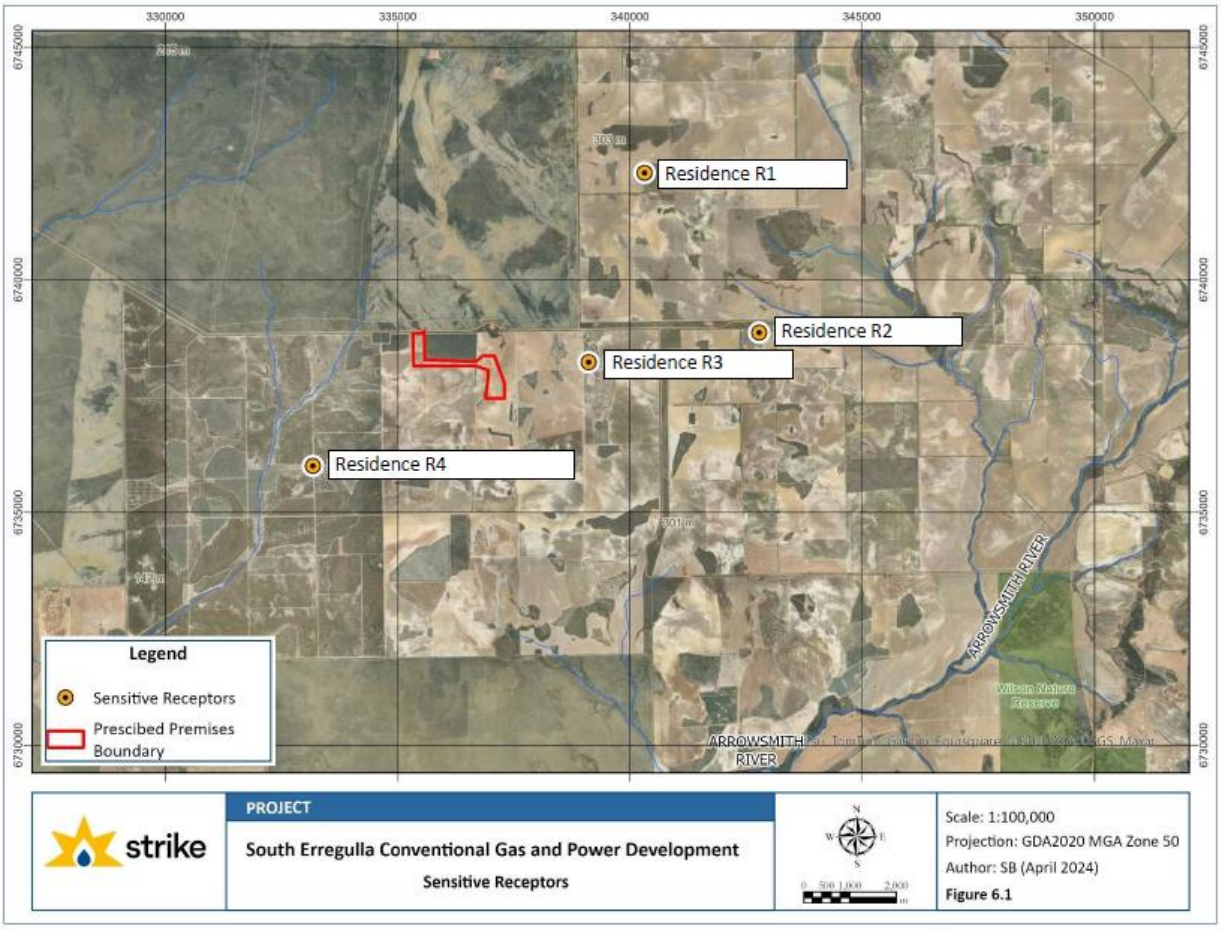

Figure 1 Human sensitive receptors locations

6.2 Risk ratings

Risk ratings have been assessed in accordance with the *Guideline: Risk Assessments* (DWER 2020) for each identified emission source and takes into account potential source-pathway and receptor linkages as identified in Section 6.1. 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 6.1), 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 5.

Works approval W6938 that accompanies this decision report authorises construction and time-limited operations. The conditions in the issued works approval, as outlined in Table 5 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. gas processing and power generation. 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 application.

Table 5: Risk assessment of potential emissions and discharges from the premises during construction, commissioning and operation

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Reasoning
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
Construction								
Installation of gas production facility, power generation facility, and flowlines, with associated vehicle movements	Dust	Air/windborne pathway causing impacts to health and amenity	Rural residence from 4.2 km southwest	Refer to Section 6.1.1	**C = Slight** **L = Unlikely** **Low Risk**	Y	NA	The delegated officer considers that given the works will occur at a separation distance of over 4.2 km to the nearest public receptor, there is a low risk of noise and dust emissions impacting the health or amenity of the public. It was additionally noted that noise and dust controls relating to construction will be included in the premises Environment Plan required to be implemented under the PGER Regulations.
	Noise and vibration					Y		
	Potentially hydrocarbon contaminated hydrotesting fluids	Direct discharge to land resulting in contamination of land	Immediate surrounding area (agriculture)			Y		The delegated officer considers that given the applicant has proposed to contain hydrotesting water in an HDPE lined evaporation pond and that the water is unlikely to contain significant contaminants, there is a low risk of impact to surrounding environment. The works approval does not provide any implied or direct authorisation for discharge of the fluids into the environment.
Commissioning								
Commissioning of gas production facility – sixty days duration – five days only for flaring activities	Methane, carbon dioxide, volatile organic compounds, and gas impurities	Air/windborne pathway causing impacts to health and amenity	Rural residence from 4.2 km southwest	Refer to Section 6.1.1	**C = Moderate** **L = Unlikely** **Medium Risk**	N	Conditions **1**, 7, **8 and 9**	Based on the expected composition of extracted gas, VOCs (notably benzene) along with NOx are considered the most significant pollutants within flare emissions with the potential to impact public health. Given the short-term nature of commissioning activities (maximum of two hours per event over a total of five days), and the separation distance to receptors being more than 4 km from the premises boundary, AGV are unlikely to be exceeded at receptors in proximity to the premises. The applicant will only be authorised to conduct commissioning for a short duration (10 calendar days which is based on predicted timeframes and allows some contingency) and is required to record and report the duration of commissioning flaring, mass flow rates and total volume of gas flared during commissioning flaring events in the Environmental Commissioning Report for the premises.
Time limited operation								
Operation of the extraction wells, flowlines and gas separation plant	Methane, carbon dioxide, volatile organic compounds and gas impurities (flaring of gas, pipeline leaks, inventory blowdown, pressure safety valve activation)	Air/windborne pathway causing impacts to health and amenity	Rural residence from 4.2 km southwest	Refer to Section 6.1.1	**C = Moderate** **L = Unlikely** **Medium Risk**	N	Conditions **1**, 14, **15**, and **17**	During operation of the premises, flaring will be limited to: minor continuous volumes from the condensate flash vessel for condensate stabilisation and purge; PSV activation under abnormal circumstances; and inventory blowdown during emergency recovery or invasive inspection and/or maintenance. The delegated officer determined it appropriate to include a requirement to install a system to continuously measure and report on flaring rates, to allow for confirmation of the frequency and volume of such events throughout operation of the premises to confirm they align with those on which the assessment was based.
	Noise	Air/windborne pathway causing impacts to amenity	Rural residence from 4.2 km southwest	Refer to Section 6.1.1	**C = Slight** **L = Unlikely** **Low Risk**	Y	N/A	The delegated officer considers that given the premises has a separation distance of over 4.2 km to the nearest public receptor, there is a low risk of noise emissions impacting the amenity of the public therefore specific noise controls are not specified within the works approval.
	Produced water (contains hydrocarbons and heavy metals) due to loss of containment	Direct discharge to land resulting in contamination of land and potential groundwater contamination	Immediate surrounding area (agriculture) Groundwater	Refer to Section 6.1.1	**C = Minor** **L = Unlikely** **Medium Risk**	Y	Conditions **1** and **15**	Under normal operations the facility is expected to produce 7,500 L/day of produced water which will be discharged to a HDPE lined evaporation pond which, based on the water balance provided, has been designed with sufficient capacity to contain the annual production volume, rainwater and a 1:100 year 24 hour ARI rainfall event. Monitoring and maintenance of a 500 mm freeboard will occur during operation. The delegated officer noted the applicant's intention to install a minimum 0.75 mm liner however noted the DoW 2013 WPN 26 recommends HDPE liners of 1.5 mm thickness with heat welded joints for long-term containment facilities. Given the expected life of the facility is 20 years, the delegated officer considered it appropriate to specify an increased thickness for the HDPE liner as well as other additional liner properties aligning with WQPN 26 and requirements to ensure the integrity of any liner joints. It is also noted that the WQPN recommends monitoring adjacent to such facilities as means for detection of seepage from the pond. The delegated officer considers the pond design and operational controls, with an increased HDPE liner thickness, will ensure the risk of impacts from loss of containment from the pond is acceptable. As the proposed controls are critical for maintaining an acceptable level of risk, they will be imposed on the works approval and required to be maintained on the licence as minimum infrastructure requirements. Daily monitoring of the pond is considered necessary given the premises will be unmanned to ensure timely detection of elevated water levels and potential seepage. The applicant has a CCTV and water level meter

Risk events					Risk rating [1] C = consequence L = likelihood	Applicant controls sufficient?	Conditions [2] of works approval	Reasoning
Sources / activities	**Potential emission**	**Potential pathways and impact**	**Receptors**	**Applicant controls**				
								which will enable monitoring to occur at the specified frequency.
	Contaminated stormwater or hydrocarbons/chemicals (diesel, corrosion inhibitor, methanol)			Refer to Section 6.1.1	**C = Minor** **L = Unlikely** **Medium Risk**	Y	Conditions **1** and **15**	The delegated officer considered the applicant's proposed controls to locate process chemicals and hydrocarbons within bunding sufficiently mitigate against the risk of contamination of land and stormwater and loss of containment events therefore imposed the applicant's controls as construction and operational requirements in the works approval. Where the applicant did not provide suitably clear specifications for bunding the delegated officer determined it appropriate to refer to AS 1940 in setting conditions to ensure requirements are sufficiently clear and enforceable. The Environmental Protection (Unauthorised Discharges) Regulations 2004 and the general provisions of the EP Act apply in relation to causing pollution, should contaminated water be discharged to the environment from any containment bunding. The works approval does not provide authorisation for discharge of contaminated water to the environment. Visual monitoring for detection of hydrocarbons is not a sufficiently valid method of determining hydrocarbon contamination therefore the delegated officer specified testing of stormwater for the presence of hydrocarbons using test strips instead.
	Condensate due to loss of containment	Direct discharge to land resulting in land contamination, and potential groundwater contamination	Immediate surrounding area (agriculture) Groundwater	Refer to Section 6.1.1	**C = Minor** **L = Unlikely** **Medium Risk**	Y	Conditions 1 and 15	The delegated officer considered the applicant's proposed controls to contain condensate within a self bunded tank located within a bund, with level monitoring and automatic shut off will sufficiently mitigate the risk of land contamination due to containment loss therefore imposed the applicant's controls as construction and operational requirements in the works approval.
Operation of the power generation facility (including gas generators)	Noise	Air/windborne pathway causing impacts to amenity	Rural residence from 4.2 km southwest	Refer to Section 6.1.1	**C = Slight** **L = Unlikely** **Low Risk**	N/A	N/A	The delegated officer considers that given the premises has a separation distance of over 4.2 km to the nearest public receptor, there is a low risk of noise emissions impacting the amenity of the public therefore specific noise controls are not specified within the works approval.
	Gases from fossil fuel combustion (NOx, CO, PM, SO2, VOCs)	Air/windborne pathway causing impacts to health and/or amenity	Rural residence from 4.2 km southwest	Refer to Section 6.1.1	**C = Major** **L = Unlikley** **Medium Risk**	N	Conditions **1**, 14, 15, **16, 17 and 18**	The delegated officer had regard to the applicant's air quality assessment (section 5.2) which indicated GLC of pollutants at receptors are predicted to be within AGV at all nearby receptors (excluding the applicant owned R3). Given the predicted GLC and the expected intermittent use of the power station during times of peak demand, combustion emissions from the power station gas generators are considered to have a medium risk of causing air quality impacts to nearby sensitive receptors. Given GLC are dependent on emission rates aligning with modelled rates the delegated officer elected to include stack monitoring requirements on the power station in order to verify emissions and the assessed risk. Conditions have therefore been included in the works approval requiring: • The exhaust stack for each power plant must be fitted with a sampling port that meets requirements of AS 4323.1 for the purpose of emission monitoring. • Monitoring of the generators is undertaken during time limited operation and results are reported to the department. • During time limited operations no more than 10 generators can be operational at any one time Once time limited operations end the data from power generation and more specific air emissions monitoring during that time can be used to inform assessments and conditions within the licence application regarding number of generators that can operate at any one time to ensure risks of exceedances are minimised. Generator specifications and stack heights aligning with those proposed and being the basis for modelling have also been specified in the works approval.

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

Note 2: Proposed applicant controls are depicted by standard text. **Bold and underline text** depicts additional regulatory controls imposed by department.

Note 3: Conditions 2-7, 10-14 and 19 to 23 are all department imposed conditions required for compliance reporting, authorising environmental commissioning and time limited operation and associated emissions, and general complaint and record keeping requirements

7. Consultation

Table 6 provides a summary of the consultation undertaken by the department.

Table 6: Consultation

Consultation method	Comments received	Department response
Application advertised on the department's website on 10 July 2024	The department received a submission from one party in response to the advertisements. The matters raised included: 1. The Proposal will contribute to the cumulative GHG emissions for the region and requires improved mitigations 2. There are unaddressed risks to fauna from the Proposal, including risk to fauna at the evaporation pond and risk of attraction of fauna to putrescible waste. 3. The location of infrastructure for the Proposal poses a risk to surface waters 4. There should be improved groundwater monitoring for the Proposal	1. As per section 2.3 and 4.1, regulation of GHG emissions are beyond the current scope of the department's Part V of the EP Act published risk-based regulatory framework, have been previously considered by the EPA and will be maintained below the 100,000 t CO2-e per year significance threshold specified in the EPA's Environmental Factor Guideline – Greenhouse Gas Emissions. 2. The application indicates putrescible waste receptacles on the premises will be covered. Minimal volumes will be produced (<2 m^3 per year is predicted). Controls have been included in the works approval to ensure the evaporation pond is fenced and pond monitoring is undertaken to identify any issues of concern at the pond. 3. The nearest surface water receptor is approximately 3 km from the premises and is not expected to be impacted by the premises activities given this separation distance. The delegated officer also considers the works approval conditions applied relating to containment of produced water and hydrocarbons adequately mitigate the risk of impacts from such discharges. 4. The department has considered the risk to groundwater associated with the premises activities and given the distance to groundwater (75-80) and conditions relating to containment of pollutants consistent with the applicant's proposed controls, the delegated officer considers the risk is sufficiently mitigated (Table 5).
Local Government Authority advised of proposal on 10 June 2024	The Shire of Three Springs responded to the proposal on 17 June 2024. The advice provided is referred to in Section 4.4.	The delegated officer noted the comments.

Department of Energy, Mines, Industry Regulation and Safety (DEMIRS) advised of proposal 10 June 2024	DEMIRS responded to the proposal on 30 October 2024. The advice provided is referred to in Section 4.3.	The delegated officer noted the advice and as per section 4.3 determined that DEMIRS is the lead agency responsible for the regulation of activities associated with gas extraction and transport therefore did not undertake detailed risk assessment or regulation of these activities. DEMIRS considered the application to be broadly consistent with good practice requirements in the petroleum industry and notes that appropriate engineering controls have been described that reflect the requirements in relevant Australian/New Zealand Standards.
Yamatji Southern Regional Corporation advised of proposal 10 June 2024	No response received	NA
Applicant was provided with draft documents on 28 January 2025. A second draft was provided to the applicant on 25 June 2025.	The Applicant submitted a response to drafts on 14 March 2025. The response included changes to the premises design. A summary of their comments and the department's response is provided in Appendix 1. The applicant responded to the second draft on 7 July 2025 with no comments and requested to waive the remaining comment period.	The department's responses to the matters raised in provided in Appendix 1.

8. Decision

Based on the assessment in this decision report, the Delegated Officer has determined that the proposal to establish the South Erregulla Conventional Gas Development and Power Peaking Station, will not pose an unacceptable risk to public health or the environment. This determination is based on:

- The small scale of the facility (total capacity of <10 m^3) and the limited population within the surrounding areas, with adequate separation distance to the nearest human receptors.
- The short duration of commissioning (planned for five days with no more than two hours of flaring per event) and infrequent limited duration shutdown and maintenance blowdown requirements.
- Adequate secondary containment infrastructure for all potentially hazardous materials being included in the premises design.
- Commissioning being a manned activity and the ability for continuous monitoring of the facility via a programmable logic controller, with both local and operations centre ability to shut-down the plant.

The applicant's containment, operational and monitoring controls are considered critical to maintaining an acceptable level of risk of environmental impacts, and in accordance with the *Guidance Statement: Setting Conditions* (DER 2015) have been imposed on the works approval as infrastructure controls for construction, and operational controls for commissioning and time limited operation. The delegated officer determined to apply some additional controls in the works approval to ensure flaring is monitored to confirm the volume and frequency through commissioning and time limited operation aligns with those on which the assessment was based.

The delegated officer also determined to apply additional controls to verify that emissions from the installed gas generators align with the assessed emissions to confirm the assessed risk of air quality impacts remains acceptable. These include:

- installation of Australian Standard sampling ports on the gas generator stacks; and
- monitoring of operational parameters, and NOx emissions during time limited operations.

The delegated officer considered the legislative context relevant to the premises and determined not to assess the environmental and public health risks associated with construction and operation of gas gathering infrastructure as these risks are considered adequately regulated through DEMIRS administered legislation (refer to section 4.3). The infrastructure is therefore included within the premises boundary but the works approval does not specify any regulatory controls relating to the construction or operation of the infrastructure.

A licence will be required to authorise ongoing operation of the constructed infrastructure. Licence conditions will not be finalised until the department assesses the licence application. The department will consider information reported in the Environmental Compliance Report, and if available the Time Limited Operation report, in assessing the application. Conditions will be imposed to ensure day-to-day operations do not pose an unacceptable risk of impacts to on and off-site receptors.

Works Approval W6938/2024/1 that accompanies this report authorises construction, commissioning and time limited operations only. The conditions in the issued works approval, as outlined in the above risk table have been determined in accordance with the Guideline: Risk Assessment (DWER 2020b).

9. 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.

References

1. Department of Environment Regulation (DER) 2015, *Guidance Statement: Setting Conditions*, Perth, Western Australia
2. Department of Water (DOW) 2013, *Water Quality Protection Note 26 - Liners for containing pollutants, using synthetic membranes* , Perth, Western Australia
3. Department of Water and Environmental Regulation (DWER) 2019a, *Guideline: Industry Regulation Guide to Licensing*, Perth, Western Australia
4. DWER 2019b, *Guideline: Air emissions (DRAFT)*, Perth, Western Australia
5. DWER 2020a, *Guideline: Environmental Siting*, Perth, Western Australia
6. DWER 2020b, *Guideline: Risk Assessments*, Perth, Western Australia
7. Strike South Pty Ltd (Strike Energy) 2024, *Application for a works approval under the Environmental Protection Act 1986 dated* ,*9 May 2024*, Perth, Western Australia
8. JBS&G Australia Pty Ltd (JBS&G) 2024, South Erregulla Peaking Power Plant, Strike South Pty Ltd, Air Emissions Assessment, dated 15 May 2025
9. Strike South Pty Ltd (Strike Energy) 2025, *Response to DWER: Summary of applicant's comments on risk assessment and draft conditions. dated* ,*14 March 2025*, 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
Decision Report – Section 3	Additional infrastructure being constructed • Solar/battery array skid with communication unit	The delegated officer made the requested updates and changes as they do not alter the risk assessment.
Decision Report - Section 3.1, 3.3 and 6.2 Table 5 Works Approval – Table 1, Table 6	Deletion of several infrastructure items and replacement with others to reflect changes in gas processing and power generation that will be implemented on site. Further information provided on sizing of proposed infrastructure, items include; • Gas processing infrastructure • Replacement of the cold vent with a ground flare • Condensate tank capacity specified • External and internal fence heights specified • Alternate gas generator types to those originally proposed • Waste oil, new oil and coolant tanks replaced with IBCs stored inside the power generation building. • Wastewater tanks and oily water separators for water management replaced with IBC. • Replacement of emergency diesel generation infrastructure with a solar/battery unit Updated wording to reflect change of infrastructure from cold venting to flaring. Incorporation of a flow meter to measure flared gas during normal operations will be present. Changes to where power for the wellhead and gas processing activities is supplied from, originally from the attached power station but will now be provided independent power from a local solar unit.	The delegated officer considered whether the proposed changes altered the risk assessment and made the requested updates and changes as relevant throughout the decision report as they do not alter the risk assessment.
Decision Report – Section 4.2	Applicant requested fewer specific details regarding location of extraction bore under their groundwater abstraction licence.	The delegated officer made the requested updates and changes as they do not alter the risk assessment

Condition	Summary of applicant's comment	Department's response
Decision Report – Section 4.3	Applicant advised development approval for the power station (and associated infrastructure) has been sought through the DPLH Development Application (DA) process, with approval provided by both the Local Government and the Development Assessment Panel (DAP).	The delegated officer noted the advice that development approval has been granted.
Decision Report – Section 5.1 and 6.2 Table 5	Applicant has shifted from cold venting of process gas to flaring. Additional details given regarding emissions and rates were provided. Information regarding frequency and duration of flaring also provided. Confirmation that flaring events will be no longer than 2 hours in duration.	The delegated officer noted these changes and updated Section 5.1 in its entirety to accurately reflect the changes proposed.
Decision Report – Section 5.2	Updated air quality report provided for the peaking power station with revised NOx emission rates.	The delegated officer noted these changes and updated Section 5.2 to reflect the conclusions of the revised report. Average guideline values for ground level concentrations are still met at all receptors.

Decision Report – Section 6.1.1, Table 3 and 6.2 Table 5	The applicant advises that wastewater holding tanks will no longer be present on site, wastewater will be stored in IBCs within the power station building.
	
	Requested removal of the statement that pumps will be housed in an enclosure to mitigate noise. Applicant states that majority of pumps are located within the power station building.
	
	Updates to mentions of "venting" to be changed to "flaring" to reflect changes in process infrastructure.
	
	Request for amendment of the control that evaporation pond inspections will be carried out daily during commissioning with further information provided on proposed monitoring of the pond for detection of seepage and elevated water level. As the site is unmanned during operations the pond will be monitored by CCTV and a water level meter on a weekly basis.
	
	• Based on Bureau of Meteorology evaporation rates, if more than 0.5 m of water loss is observed over a 7 day period, or more than 0.25 m water level drop per week over four consecutive weeks monitoring will increased to daily,
	
	  • If water level continues to drop a site inspection to assess the integrity of the liner will be conducted and remedial action undertaken.
	
	  • If liner integrity is compromised temporary removal and storage
		The delegated officer made some of the requested updates and changes which were determined not to alter the risk assessment
		
		The delegated officer noted the additional information provided relating to proposed monitoring for the pond to mitigate the risk of impacts from water loss and updated the proposed controls Given the premises is unmanned but monitored remotely the delegated officer considered the requirement for daily pond inspection is reasonable and achievable however noted the inspections may be carried out via CCTV or in person inspections in conjunction with the use of a water level meter. The delegated officer considers hydrocarbon detection strips a more accurate method for determining suitability of potentially contaminated stormwater for discharge and applied controls accordingly for the discharge of stormwater to ground.

Condition	Summary of applicant's comment	Department's response
	of water will be undertaken. In response to a request for information on the management of stormwater within bunds the applicant advised accumulated storm water to be visually inspected for contamination and discharged to grade if no evidence of contamination. If contamination is present accumulated storm water will be pumped to IBCs and disposed by a licensed wastewater contractor or into the evaporation pond onsite.	
Decision Report – Section 6.1.2, Table 4	Applicant request changing of distance from premises to Arrowsmith river from 8.8km south of the prescribed premises to ~11km south of the prescribed premises	The delegated officer notes this request. Further assessment was taken and distance updated to ~9.5km south of the prescribed premises.
Works Approval – Condition 2	Request of all items of infrastructure being constructed before an audit is undertaken and Environmental Compliance Report being submitted.	The delegated officer made the requested updates and changes as they do not alter the risk assessment.
Works Approval – Condition 4,8, 9, 10, 15, 16, 22 (c)	General request of correct referencing to tables within the works approvals	The delegated officer noted these corrections and updated the works approval to correctly reference the relevant tables.
Works Approval – Condition 5	Applicant requests an environmental commissioning timeframe of "not more than sixty calendar days" to align with the commissioning timeframe requested.	The delegated officer noted that a reduced commissioning timeframe of ten calendar days was specified on the basis of the timeframes the applicant indicated were required for commissioning (maximum of two hours per event over a total of five days) in the application. The risk assessment was on the basis of a short-duration of commissioning therefore the timeframe specified is aligned with this, noting that time limited operations may commence following commissioning report submission. Further explanation or justification is required for the requested 60-days.
Works Approval – Condition 7, Table 2 Works Approval – Table 5, Table 6, Table 8	Request for updating of emissions points to reflect changes in process gas being flared from enclosed ground flare rather than cold vented. Request to amend 'cold vent" with "enclosed ground flare" with a "5m minimum stack height". Applicant also request removal of mention of diesel power generation as no longer being constructed as an infrastructure item.	The delegated officer made the requested updates and changes. Changes in construction conditions implemented to reflect the changes to infrastructure being constructed.
Works Approval – Condition 1 Table 1 and condition 17 Table 8	The applicant requested sampling ports are only installed on 2 of the 20 gas engine stacks based on the expectation that gas composition will be identical across generators. Two are being proposed to have contingency in the event a single generator that has samples ports is off line when	The delegated officer maintained the requirement for all gas generators to have sampling ports installed for the purpose of monitoring. The use and maintenance of the generators may affect emissions performance and is not expected to be consistent across the generators therefore limiting the ability to

Condition	Summary of applicant's comment	Department's response
	conducting monitoring.	monitor the generators to only two is not sufficient to confirm the performance of the entire power station. Additionally, given the nature of the plant, emission of particular generators at the time of monitoring is not-guaranteed so equipping all generators with sampling ports is more likely to ensure emission monitoring is able to occur when scheduled. Monitoring across all gas generator stacks during TLO is required to confirm air emissions align with those assessed and will be used to inform decision making when the premises submits a licence application. Sufficient justification has not been provided to reduce the number of stack monitoring ports required to be installed.
Works Approval – Figure 2, Figure 3 and Figure 4	Updated figures provided for; • Gas processing infrastructure • Peaking power station infrastructure and layout	The delegated officer incorporated these updated designs into the works approval to reflect changes present on site.