Government of Western Australia
Department of Water and Environmental Regulation

Licence

Licence number	L9228/2019/1
Licence holder	Hazrad Australia Pty Ltd
ACN	626 763 782
Registered business address	34 Cocos Drive BIBRA LAKE WA 6090
DWER file number	DER2019/000607
Duration	04/02/2020 to 03/02/2030
Date of amendment	18/08/2022
Premises details	Hazrad Australia 34 Cocos Drive BIBRA LAKE WA 6090 Legal description - Lot 145 on Plan 19074 Certificate of Title Volume 2172 Folio 221

Prescribed premises category description (Schedule 1, *Environmental Protection Regulations 1987*)	**Assessed design capacity**
Category 61: Liquid waste facility	3,000 tonnes per annum
Category 61A: Solid waste facility	2,000 tonnes per annum
Category 62: Solid waste depot	1,500 tonnes per annum

This licence is granted to the licence holder, subject to the attached conditions, on 18 August 2022, by:

Jarrod Abrahams

Digitally signed by Jarrod Abrahams
Date: 2022.08.18 15:26:20 +08'00'

MANAGER WASTE INDUSTRIES
REGULATORY SERVICES
An officer delegated by the CEO under section 20 of the EP Act

Licence history

Date	Reference number	Summary of changes
04/02/2020	L9228/2019/1	First licence issued.
21/09/2021	L9228/2019/1	Amendment to install and operate infrastructure for the treatment and disposal of PFAS impacted wastewater.
18/08/2022	L9228/2019/1	Amendment to: • treat reactive chemical wastes through scrubbing infrastructure; • give effect to Notice of amendment of licence reporting requirements section 59(2), section 59(1)(a) and 59(1)(b) *Environmental Protection Act 1986* licensed prescribed premises (16 May 2022).

Interpretation

In this licence:

(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 means the version of the standard, guideline, or code of practice in force at the time of granting of this licence and includes any amendments to the standard, guideline or code of practice which may occur from time to time during the course of the licence;

(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 licence requires specific conditions to be met but does not provide any implied authorisation for other emissions, discharges, or activities not specified in this licence.

Licence conditions

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

Infrastructure and equipment

1. The licence holder must ensure that the site infrastructure and equipment listed in Table 1 and located at the corresponding infrastructure location is maintained and operated in accordance with the corresponding operational requirement set out in Table 1.

Table 1: Infrastructure and equipment requirements

Site infrastructure and equipment	Operational requirement	Infrastructure location
Main warehouse (excluding reception, office and amenity areas)	• Bunded to 65 mm high with a 91 kL capacity and comprised of a sealed concrete hardstand with a permeability less than $1x10^{-9}$ m/s.	Schedule 1: Maps Figure 2
Vehicle loading/unloading area	• Must be used for all packaged waste receival, inspection and dispatch. • Contains a 5kL bunded sorting area. • Located within the Main warehouse.	Schedule 1: Maps Figure 2: Receipt/Dispatch Area
Bulk waste holding tank	• Located within an internally bunded dangerous goods storage container. • Situated above a bitumen hardstand with a permeability less than $1x10^{-9}$ m/s.	Schedule 1: Maps Figure 2: 10ft DG3 Container
Wastewater treatment plant	• To be comprised: – 20 kL Receival tank – Storage IBCs – Coalescing Plate separator – Activated Carbon Unit 1 – Activated Carbon Unit 2 – Ion exchange resin filter vessel – 20 kL Storage tank • Activated Carbon Unit 1 and Activated Carbon Unit 2 must each contain 1 m^3 of granulated activated carbon. • Must be operated and maintained in accordance with manufacturer's specifications to ensure treatment quality is consistent with design specifications. • Carbon filters are to be replaced as informed through on-site carbon filter testing program. Note: filters must be replaced every 24 months regardless	Schedule 1: Maps, Figure 2: Treatment plant

Site infrastructure and equipment	Operational requirement	Infrastructure location
	of test results	
Scrubber and fume hood	• To be comprised: - Polypropylene fume hood designed with face air velocity of 0.5m/s - Jondec crossflow fume scrubber - 315 mm diameters PVC ventilation duct with poly welded seams, connecting the fume hood to the scrubber. - 315mm diameter PVC exhaust stack, protruding 3m above roof line and fitted with velocity damper to maintain minimum 10 m/s plume ejection rate. - Jondec fume fan designed to deliver 2500 litres/second at 500 pascals. • Located within the Main warehouse.	Schedule 1: Maps Figure 2: Fume Hood and Wet Scrubber
Sewer discharge point	• The disposal of treated wastewater to the sewer discharge point must be conveyed via an enclosed pipe network. • Discharged PFAS contaminated wastewater concentrations must not exceed: i. 0.1 µg/L for PFOA; and ii. 0.1 µg/L for PFOS + PFHxS	Schedule 1: Maps, Figure 2: Sewer and Sampling discharge
Packaged waste store	• Pallet racking segregated by dangerous goods/hazard class. • Bunded to 270 mm high. • Located within the main warehouse.	Schedule 1: Maps Figure 2: Mixed DG Class Store
Waste decanting area	• Bunded to 250 mm high. • Located within the main warehouse.	Schedule 1: Maps Figure 2: Decant Station
Empty bin/drum/container storage area	• Situated above a bitumen hardstand with a permeability less than $1x10^{-9}$ m/s.	Schedule 1: Maps Figure 2: Yard Storage
Dangerous goods storage sea containers for larger quantities – radioactive	• Internally bunded. • Located within the main warehouse.	Schedule 1: Maps Figure 2: 20ft DG7 Store Storage
Dangerous goods storage sea containers for larger quantities – flammable materials	• Internally bunded. • Situated above a bitumen hardstand with a permeability less than $1x10^{-9}$	Schedule 1: Maps Figure 2: 20ft DG3 Container

Site infrastructure and equipment	Operational requirement	Infrastructure location
	m/s.	
Sealed roadways	• Bitumen hardstand with a permeability less than $1x10^{-9}$ m/s.	Schedule 1: Maps Figure 2.
Emission control equipment		
Spill kits	• Must be capable of and used to immediately contain and clean any spill of liquid waste outside of a bunded area.	Schedule 1: Maps Figure 2: Spill Response Station
Stormwater control equipment	Maintained in working order and comprised of; • drain covers; • drain wardens fitted with absorbent hydrocarbon pillows; and • a wet vacuum.	Schedule 1: Maps Figure 2: Stormwater Drain
Fire protection equipment	Maintained in working order and comprised of; • fire hose reels; • fixed position fire extinguishers; • mobile fire extinguishers; and • a mains connected fire hydrant.	Schedule 1: Maps Figure 2.

Waste acceptance

2. The licence holder must only accept onto the premises waste of a waste type, which does not exceed the corresponding rate at which waste is received, and which meets the corresponding acceptance specification set out in Table 2.

Table 2: Types of waste authorised to be accepted onto the premises

Waste type	Controlled Waste Category Group	Rate at which waste is received	Acceptance specification
Acids	B	Combined total of no more than 2,000 tonnes per annual period of liquid and 2,000 tonnes per annual period of solids	Tankered into the premises or delivered in intermediate bulk containers (IBC), drums or other containers
Bases	C		
Ethers and highly flammable hydrocarbons	G100		
Non-halogenated organic solvents	G110		

Waste type	Controlled Waste Category Group	Rate at which waste is received	Acceptance specification
Plating & Heat Treatment waste	A		Delivered in intermediate bulk containers (IBC), drums or other containers
Inorganic chemicals	D		
Reactive chemicals	E		
Paints, resins, inks and organic sludges	F		
Organic solvents	G130		
	G150		
	G160		
Pesticides	H		
Oils	J		
Food and beverage processing waste	K200		
Industrial wash waters	L		
Organic chemicals (other than M270 - PFAS contaminated wastewater)	M		
Soils and sludge	N		
Clinical and pharmaceutical	R		
Waste chemicals from research, photographic processing and used tyres	T		
NORM waste	-		(a) Delivered in sealed intermediate bulk containers (IBC), drums or other containers. (b) Has an individual radionuclide activity concentration below 50 Bq/g

Waste type	Controlled Waste Category Group	Rate at which waste is received	Acceptance specification
Sealed Source radioactive waste	-		(a) Delivered in sealed intermediate bulk containers (IBC), drums or other containers. (b) Fits Category 3, 4 and 5 criteria as defined in the IAEA Safety Guide No. RS-G-1.9
Per- and polyfluoroalkyl substances (PFAS) contaminated wastewater	M270	1,000 tonnes per annual period	Tankered into the premises or delivered in intermediate bulk containers (IBC)
Special Waste Type 1 (asbestos waste)	N220	Combined total of no more than 1,500 tonnes per annual period.	(a) Separated from other material. (b) Sealed in double-lined or double bagged, heavy duty plastic sheeting of at least 0.2 mm thickness. (c) Labelled with the words 'CAUTION – ASBESTOS' in letters not less than 50 mm high.
Inert Waste Type 2	-		Only plastic wastes accepted as part of waste packaging and containment

Note 1: Additional requirements for the acceptance of controlled waste are set out in the CW Regulations.

3. Prior to the acceptance of any controlled waste stream at the premises, the licence holder must ensure that:

   (a) information on the characteristics of the waste is obtained; and

   (b) a suitably qualified chemist assesses the information and determines whether the waste can be processed at the premises to meet the requirements of the licence.

4. The licence holder must ensure that information on the characteristics of liquid waste streams received at the premises are kept up to date.

5. Waste must not be accepted onto the Premises where:

   (a) the licence holder has not obtained a signed declaration from the supplier of the source material with each delivery that:

      (i) sets out the waste type, characteristics and volume being delivered; and

      (ii) sets out the carrier, registration number of the vehicle and the date of delivery.

6. The licence holder must ensure where waste does not meet the acceptance criteria set out in conditions 2 and 5, it is removed from the premises by the delivery vehicle or, where that is not possible, stored in a quarantined storage area or container and removed to an appropriately authorised facility as soon as practicable.

7. The licence holder must ensure that waste is not accepted onto the premises unless sufficient treatment or storage capacity exists for that waste and the site is adequately staffed to receive the waste to ensure the requirements of this licence are met.

Waste characterisation

8. The licence holder must ensure that all liquid waste streams are subject to verification testing by a suitably qualified chemist upon arrival to confirm that:

   (a) the characteristics of each liquid waste stream is consistent with the details obtained in accordance with condition 3 for that waste; and

   (b) the liquid waste stream is suitable for the proposed process determined in accordance with condition 3.

9. The licence holder must ensure that all wastes undergoing verification testing required by condition 8 are:

   (a) held in a dedicated receival area with the infrastructure specified in Table 1, pending confirmation of their acceptability; and

   (b) stored in manner that ensures incompatible wastes are unable to mix.

Waste processing

10. Prior to entering any treatment process or storage area the licence holder must ensure that wastes are adequately characterised to prevent incompatible waste types being mixed in the treatment process or during storage.

11. The licence holder must ensure that the waste types specified in Table 3 are only subjected to the corresponding process(es), subject to the corresponding process limits and/or specifications set out in Table 3.

Table 3: Waste processing

Waste type	Controlled Waste Category Group	Process(es)	Process limits and/or specifications
Acids	B	Receipt, handling, storage, consolidation and treatment prior to offsite removal.	Waste treatment must only be comprised of the following: a) acid-base neutralisation; and b) solidification. A combined total of no more than 1 tonne of waste shall be solidified each week. Waste must be stored, consolidated and treated in a manner that prevents incompatible wastes mixing.
Bases	C		
Pesticides	H		Waste treatment must only be comprised of the following: a) solidification. A combined total of no more than 1 tonne of waste shall be solidified each week. Waste must be stored, consolidated and treated in a manner that prevents incompatible wastes mixing.
Oils	J		
Soils and sludge	N		
Clinical and pharmaceutical	R		
Waste chemicals from research, photographic processing and used tyres	T		
Plating & Heat Treatment waste	A	Receipt, handling, physiochemical processing and storage prior to on-site discharge to Water Corporation sewer or off-site disposal.	Waste treatment must only be comprised of the following: a) hydrolysation; b) neutralisation; and c) solidification. Waste must only be treated in the fume hood as specified in Table 1.
Inorganic chemicals	D (except D120, D151, D160, D200, D211 and D221)		
Reactive chemicals	E130		

Waste type	Controlled Waste Category Group	Process(es)	Process limits and/or specifications
Organic chemicals	M130, M150, M160, M210, M220, M250 and M260		A combined total of no more than 2 tonnes of waste must be treated each week. Waste must be stored, consolidated and treated in a manner that prevents incompatible wastes mixing.
Ethers and highly flammable hydrocarbons	G100	Receipt, handling, storage, and consolidation prior to offsite removal.	Waste must be stored and consolidated in a manner that prevents incompatible wastes mixing.
Non-halogenated organic solvents	G110		
Inorganic cyanide	A130		
Inorganic chemicals	D		
Reactive chemicals	E		
Paints, resins, inks and organic sludges	F		
Organic solvents	G130		
	G150		
	G160		
Food and beverage processing waste	K200		
Industrial wash waters	L		
Organic chemicals (other than M270 - PFAS contaminated wastewater)	M		
Per- and polyfluoroalkyl substances (PFAS) contaminated wastewater	M270	Receipt, handling, physiochemical processing and storage prior to on-site discharge to Water Corporation sewer or off-site disposal.	Only to be accepted, processed and stored within the water treatment plant as specified in Table 4. Deliveries must be pumped via a 5 µm particulate filter bag into the receival tank. All residual solid wastes from the treatment process must only be stored in IBCs within the Receipt/Dispatch Area.
Industrial wash water	L100 and L150		
Oils	J120 and J130		

Waste type	Controlled Waste Category Group	Process(es)	Process limits and/or specifications
NORM waste	-	Receipt, handling, and storage prior to offsite removal.	Must be stored within a Dangerous Goods Class 7 containment unit.
Sealed Source radioactive waste	-		
Special Waste Type 1 (asbestos waste)	N220		No more 10 tonnes can be stored at any time. Waste must not be stored for longer than 10 days from receipt before being removed offsite for disposal.
Inert Waste Type 2 (Plastic only)	-	Receipt, handling, cleaning and storage prior to offsite removal.	N/A

General

12. The licence holder must take all reasonable and practicable measures to prevent stormwater run-off becoming contaminated by the activities and operations undertaken at the premises.

13. The licence holder shall immediately recover, or remove and dispose of, spills of environmentally hazardous materials including fuel, oil, or other hydrocarbons, whether inside or outside an engineered containment system.

14. The licence holder shall ensure that all material used for the recovery, removal, and/or disposal of environmentally hazardous materials is stored in an impermeable container prior to disposal at an appropriately authorised facility.

15. The licence holder must:

    (a) erect and maintain suitable fencing to prevent unauthorised access to the site;

    (b) ensure that any entrance gates to the premises are securely locked when the premises is unattended; and

    (c) undertake regular inspections of all security measures and repair damage as soon as practicable.

Monitoring

16. The licence holder must record the total amount of waste accepted onto the premises, for each waste type listed in Table 4, in the corresponding unit, and for each corresponding time period, as set out in Table 4.

Table 4: Waste accepted onto the premises

Waste type	Unit	Time period
Liquid waste types as specified in Table 2	m^3 and tonnes	Each load accepted at the premises.
Solid waste types as specified in Table 2		

17. The licence holder must record the total amount of waste removed from the premises, for each waste type listed in Table 5, in the corresponding unit, and for each corresponding time period set out in Table 5.

Table 5: Waste removed from the premises

Waste type	Unit	Time period
Liquid waste types as specified in Table 2	m^3 and tonnes	Each load removed from the premises.
Solid waste types as specified in Table 2		

18. The licence holder must record the amount and type of waste solidified at the premises, for each waste type listed in Table 6, in the corresponding unit, and for each corresponding time period set out in Table 6.

Table 6: Waste solidified at the premises

Waste type	Unit	Time period
Liquid waste types as specified in Table 2	m^3 and tonnes	Weekly

19. The licence holder must monitor discharges in accordance with the requirements specified in Table 7 and record the results of all such monitoring.

Table 7: Discharge monitoring

Discharge point	Monitoring location	Parameter	Frequency	Averaging period	Unit	Method
Sewer connection, as depicted in Schedule 1, Figure 2: Proposed sewer connection/discharge point	Monitoring to be undertaken after wastewater has been conveyed through the carbon filters prior to discharge to the trade waste sewer.	PFOA	Each discharge event of PFAS contaminated waters	Spot sample	µg/L	AS/NZS 5667.1 and AS/NZS 5667.10.
		PFOS + PFHxS				

20. All monitoring specified in condition 19 must be undertaken by laboratories with current NATA accreditation for the analysis specified.

Records and reporting

21. The licence holder must maintain accurate and auditable books including the following records, information, reports, and data required by this licence:

    (a) the calculation of fees payable in respect of this licence;

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

    (c) monitoring undertaken in accordance with conditions 16, 17, 18 and 19 of this licence; and

    (d) complaints received under condition 23 of this licence.

22. The books specified under condition 21 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 licence holder for the duration of the licence; and

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

23. The licence holder must record the following information in relation to complaints received by the licence 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 licence holder to investigate or respond to any complaint.

24. The licence holder must:

    (a) undertake an audit of their compliance with the conditions of this licence during the preceding annual period; and

    (b) prepare and submit to the CEO by no later than 60 calendar days after the end of that annual period an Annual Audit Compliance Report in the approved form.

25. The licence holder must submit to the CEO an environmental report for the preceding two annual periods no later than 60 calendar days after the end of every second annual period in accordance with the requirements set out in Table 8. The first report being due on 1 March 2024, then biennially (every two years) thereafter.

Table 8: Environmental reporting requirements

Condition	Requirement
-	A summary of any failure or malfunction of any pollution control equipment or any incidents that have occurred during the annual period and any action taken.
6	A summary of any rejected loads during the annual period.
3, 4, 8 and 10	A summary of characteristics for waste accepted at the premises during the annual period.
16	A summary of input monitoring for the annual period.
17	A summary of output monitoring for the annual period.
18	A summary of waste solidified for the annual period.
19	A summary of PFAS contaminated water discharge monitoring for the annual period.

Definitions

In this licence, the terms in Table 9 have the meanings defined.

Table 9: Definitions

Term	Definition
ACN	Australian company number
acid-base neutralisation	means the dosing of wastes to achieve a pH value of 6 – 9.
Annual Audit Compliance Report (AACR)	means a report submitted in a format approved by the CEO (relevant guidelines and templates may be available on the Department's website).
annual period	a 12 month period commencing from 1 January until 31 December of the same year.
approved form	the AACR Form template approved by the CEO for use and available via DWER's external website.
AS/NZS 5667.1	the Australian Standard AS/NZS 5667.1 -1998 Water Quality – Sampling – Guidance on the design of sampling programs, sampling techniques and the preservation and handling of samples
AS/NZS 5667.10	the Australian Standard AS/NZS 5667.10-1998 Water Quality – Sampling – Guidance on sampling of waste waters
books	has the same meaning given to that term under the EP Act.
Bq/g	Becquerels per gram
CEO	means Chief Executive Officer of the Department. "submit to / notify the CEO" (or similar), means either: Director General Department administering the *Environmental Protection Act 1986* Locked Bag 10 Joondalup DC WA 6919 or: info@dwer.wa.gov.au
characteristics	means the details of the type of waste and the process that produced the waste, physical appearance, colour, pH, odour presence, strength and description, hazardous characteristics and constituent chemical analysis obtained through representative sampling and testing of the waste.
condition	a condition to which this licence is subject under section 62 of the EP Act.

Term	Definition
Consolidation	means the act of combining compatible controlled wastes together to facilitate storage and transportation.
Controlled Waste	has the definition in *Environmental Protection (Controlled Waste) Regulations 2004.*
CW Regulations	*Environmental Protection (Controlled Waste) Regulations 2004*
department	means the department established under section 35 of the *Public Sector Management Act 1994* (WA) and designated as responsible for the administration of the EP Act, which includes Part V Division 3.
discharge	has the same meaning given to that term under the EP Act.
emission	has the same meaning given to that term under the EP Act.
EP Act	*Environmental Protection Act 1986* (WA)
EP Regulations	*Environmental Protection Regulations 1987* (WA)
IAEA Safety Guide No. RS-G-1.9	means the document titled *Categorization of Radioactive Sources*, published by the International Atomic Energy Agency, as amended from time to time.
IBC	Intermediate bulk container
Landfill Definitions	means the document titled *Landfill Waste Classification and Waste Definitions* 1996, as amended from time to time.
licence	refers to this document, which evidences the grant of a licence by the CEO under section 57 of the EP Act, subject to the specified conditions contained within.
licence holder	refers to the occupier of the premises, being the person specified on the front of the licence as the person to whom this licence has been granted.
PFAS	Perfluoralkyl and polyfluoralkyl substances
PFOA	Perfluorooctanoic acid
PFOS + PFHxS	the sum of Perfluorooctanesulfonic acid and Perfluorohexane sulfonate
Premises	refers to 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: Maps.
prescribed premises	has the same meaning given to that term under the EP Act.

Term	Definition
solidification	refers to the process of blending and adsorbing liquid or sludge waste with a solid matrix in order to produce a solid waste as defined in the Landfill Definitions.
suitably qualified chemist	means a person who: (a) holds a bachelor degree in chemistry or similar; and (b) has a minimum of at least three years of experience working in the area/field of chemistry.
suitably qualified engineer	means a person who: (a) holds a bachelor degree in civil engineering; and (b) has a minimum of at least three years of experience working in the area/field of civil engineering.
waste	has the same meaning given to that term under the EP Act.
Waste Code	means the Waste Code assigned to a type of controlled waste for purposes of waste tracking and reporting as specified in the Department of Water and Environment Regulation's *Controlled Waste Category List.*

END OF CONDITIONS

Schedule 1: Maps

Premises map

Figure 1: Map of the prescribed premises. The boundary of the prescribed premises is depicted by the pink line.

Premises layout

Figure 2: Layout of infrastructure and equipment at the prescribed premises