Water: Liquid Trade Waste Application [C1]

Essential Energy to advise applicant which pages are to be completed:

- for discharges in Classification A (Cat 1 & 1A) - pages 1 to 3, sign page 11 and relevant forms [C2] – [C5]
- for discharges in Classification S - pages 1 to 3, sign page 11 and form [C6]
- for discharges in Classification B (Cat 2) and C (Cat 3) - all pages and sign page 11

1. Business trading name: _____

2. Site address: No _____ Street _____

Town/Suburb _____ Postcode _____

Property description: Lot _____ Section _____ DP _____

3. Property owner's name: _____

Telephone: BH (____) _____ AH (_____) _____

4. Property owner's address: _____

5. Applicant's name (if different to the owner): _____

Telephone: BH (_____) _____ AH (_____) _____

Applicant's address: _____

6. Occupier's name (if different to the owner): _____

Telephone: BH (_____) _____ AH (_____) _____

7. Normal hours of business: Monday to Friday: ..... to .....

Saturday: ..... to .....

Sunday: ..... to .....

8. Type of business: _____

Commercial retail food preparation activities – Please fill out and attach Form [C2]

Other commercial activities – Please fill out and attach as appropriate from Forms [C3] to [C5]

9. Description of flow:

Maximum rate of discharge to sewer _____ kL/h or L/s

Maximum daily discharge to sewer _____ kL

10. Any water supply meter installed? ☐ Yes / No ☐

11. Existing/proposed equipment (grease arrestor, dry basket arrestor, cooling pit, etc.):

Type _____

Size/flow rate_____

12. Proposed cleaning schedule of pre-treatment equipment and names of contractors used:

Table C1-1. Proposed cleaning details of pre-treatment equipment

Type of equipment and/or waste	Frequency of cleaning	Contractor name and licence No.	Contractor contact No.	Disposal facility and contact No. (if applicable)

13. Location of the sampling point: _____

14. Plans – application to be accompanied by plan/s showing:

- details of activities and pre-treatment equipment, including capacities and location associated with the generation of liquid waste
- details, location, capacity/dimensions, proposed pre-treatment facilities
- drainage diagram, where available
- proposed connection point to the sewerage system
- location of a sampling point
- stormwater drainage plan – not available in Broken Hill

The following substances are prohibited from being discharged into the sewerage system:

- organochlorine weedicides, fungicides, pesticides, herbicides and substances of a similar nature and/or wastes arising from the preparation of these substances
- organophosphorus pesticides and/or waste arising from the preparation of these substances
- Per- and poly-fluoroalkyl substances (PFAS)
- any substances liable to produce noxious or poisonous vapours in the sewerage system
- organic solvents and mineral oil
- any flammable or explosive substances
- discharges from 'bulk fuel depots'
- discharges from chemicals and/oil storage areas
- natural or synthetic resins, plastic monomers, synthetic adhesives, rubber and plastic emulsions
- roof, rain, surface, seepage or ground water, unless specifically permitted (clause 137A of the Local Government (General) Regulation 2005)
- solid matter
- disposable products including wet wipes, cleaning wipes, colostomy bags, cat litter and other products marketed as flushable
- any substance assessed as not suitable to be discharged to the sewerage system
- waste liquids that contain pollutants at concentrations which inhibit the sewage treatment process—refer Australian Sewage Quality Management Guidelines, June 2012, WSAA
- any other substances listed in a relevant regulation.

For classification S and B only

Please include all details as requested (if insufficient space attach as clearly labelled appendices), and make sure you read the section on substances that must not be discharged to the sewerage system.

15. Type of business:

16. Name of processes generating liquid trade waste:

a. _____

b. _____

c. _____

d. _____

e. _____

f.

17. Type and quality of raw materials processed: _____

18. Description of liquid waste proposed to be discharged:

- list of all expected pollutants including substances contained in wash down detergents, boiler and cooling water and other sources
- expected maximum and average concentrations of pollutants
- sample analysis results of the proposed waste.

Note:

The sample analysis tests must be carried out by a NATA approved laboratory with accreditation for analysis of the nominated pollutants in the application or a laboratory acceptable to Essential Energy and the Department of Primary and Environment.

Acceptable means of sample analysis data collection:

- sample analysis results from a similar existing process
- samples collected from a trial pre-treatment plant
- equipment manufacturer's or consultant's advice on expected quality

Attach details and supporting documentation of data collection method.

When detailing the nominated pollutants where there is no possibility of discharge to the sewerage system because none of the substance is stored or used at the premises, write 'NIL'.

Table C1-2. General acceptable limits

Parameter	Acceptance limits (mg/L)	Average (mg/L)	Maximum (mg/L)
BOD	Normally, approved at 300 mg/L. Concentrations up to 600 mg/L may be accepted.		
Suspended solids	Normally, approved at 300 mg/L. Concentrations up to 600 mg/L may be accepted.		
COD	Normally, not to exceed BOD by more than three times. This ratio is given as a guide only to prevent the discharge of non-biodegradable waste.		
Total dissolved solids	Up to 4,000 mg/L may be accepted. The acceptance limit may vary depending on the effluent disposal option and is subject to a mass load limit.		
Temperature	Less than 38°C.		
pH	Within the range 7.0 to 9.0.		
Oil and grease	100 mg/L if the volume of the discharge does not exceed 10% of the design capacity of the treatment works, and 50 mg/L if the volume is greater than 10%.		
Detergents	All detergents are to be biodegradable. A limit on the concentration of 50 mg/L (as MBAS) may be imposed on large liquid trade wastes discharges.		
Colour	Colour must be biodegradable. No visible colour when diluted to the equivalent dilution afforded by domestic sewage flow. Specific limits may be imposed on industrial discharges where colour has a potential to interfere with sewage treatment processes and the effluent management.		
Radioactive substances	If expected to be present (e.g., Iodine 131 from ablation), acceptance requirements will be set on a case-by-case assessment.		

Table C1-3. Acceptable limits for inorganic compounds

Parameter	Acceptance limits (mg/L)	Average (mg/L)	Maximum (mg/L)
Ammonia (as N)	50		
Boron	5		
Bromine	5		
Chlorine	10		
Cyanide	1		
Fluoride	30		
Nitrogen (total Kjeldahl)	100		
Phosphorus (total)	20		
Sulphate (as SO_4)	500		
Sulphide (as S)	1		

Table C1-4. Acceptable limits for organic compounds

Parameter	Acceptance limits (mg/L)	Average (mg/L)	Maximum (mg/L)
Benzene	< 0.001		
Toluene	0.5		
Ethyl benzene	1		
Formaldehyde	1		
Phenolic compounds non-halogenated	30*		
Total recoverable hydrocarbons C_6 – C_9 (flammable) Total	 5 30		
Pesticides (general)	0.1		
Pesticides (organophosphates)	Nil		
Pesticides (organochlorines)	Nil		
PFAS	Nil		
Polynuclear Aromatic Hydrocarbons (PAH)	5		

* Acceptance of chemical toilet waste which contains formaldehyde will be assessed on the available dilution in the sewerage system.

Table C1-5. Acceptable limits for metals

Parameter	Acceptance limits (mg/L)	Allowed daily mass limit (g/d)	Average (mg/L)	Maximum (mg/L)
Alumnium	100	-		
Arsenic	0.5	2		
Cadmium	1	5		
Chromium*	3	10		
Cobalt	5	15		
Copper	5	15		
Iron	100	-		
Lead	1	5		
Manganese	10	30		
Mercury	0.01	0.05		
Molybdenum	5	15		
Nickel	1	5		
Selenium	1	5		
Silver	2	5		
Tin	5	15		
Zinc	1	5		
Total heavy metals excluding aluminum, iron and manganese	**Less than 30 mg/L and subject to total mass loading requirements**			

* Where hexavalent chromium (Cr6+) is present in the process water, pre-treatment will be required to reduce it to the trivalent state (Cr3+), prior to discharge into the sewer. Discharge of hexavalent chromium (Cr6+) from chromate compounds used as corrosion inhibitors in cooling towers is not permitted.

Note:

Limits for substances not listed in the above tables will be determined on a case-by-case basis. If a substance is expected to be present in wastewater but not listed in the above tables, please list the substance, and expected maximum concentration in wastewater.

19. Liquid wastes not discharged to the sewerage system including waste from maintenance of pre-treatment equipment:

Details of management arrangement for all waste streams/wastes that are not permitted or not intended to be discharged to the sewerage system including details below.

Table C1-6. Details of management arrangement for all waste streams/wastes that are not permitted

Type of liquid waste and/or process generating the above waste	Quantity	Storage method and location	Disposal arrangement including frequency*	Liquid waste transporter name, licence and contact No. (if applicable)	Name and contact No. of the waste disposal facility (if applicable)

* Provide a copy of agreement between the proponent and each transport contractor.

20. Description of flow: _____

Monday to Friday: am ..... pm .....

Saturday: am ..... pm .....

Sunday: am ..... pm .....

When are the peak periods of discharge during the day: _____

Type of discharge:

☐ Batch flow

☐ Intermittent flow

☐ Continuous flow

21. Where the applicant considers there are special circumstances applicable to their discharge, these circumstances should be identified, for example:

- seasonal discharges
- large differences between average and maximum daily loads
- variations to flow, which avoid peak domestic flows, etc.
- retention of discharges for extended periods.

Comments: _____

_____

22. Open areas (please attach stormwater drainage plan for the site):

Does the proposed installation contain open areas that will drain to the sewerage system?

If 'Yes', give details:

_____

_____

Stormwater is prohibited from being discharged into Essential Energy's sewerage system. The capacity for such flows is not provided in the sewerage system. Therefore, Essential Energy does not generally accept the discharge of stormwater to the sewerage system.

The discharge of limited quantities of first-flush stormwater from sealed areas will be considered where roofing cannot be provided because of safety or other important considerations.

Please provide the following information:

- reasons why the area cannot be roofed (fully or partially) and bunded to exclude stormwater
- the dimensions and a plan of the area under consideration
- whether the open area is sealed
- the estimated volume of the stormwater discharge
- information on rain gauging
- information on a first-flush system if proposed
- measures proposed for diverting stormwater away from the liquid trade waste generating area
- report on other stormwater management options considered and why they are not feasible.

23. Water supply source:

- bore/groundwater/on-site dam/watercourse
- recycled/reuse water
- town water
- any water supply meter being installed.

Comments: _____

24. Sampling point location: _____

25. Flow measurement location and type of flowmeter (Attach details of flow measurement installed/proposed)

_____

_____

If separate waste meters (or check meters) are installed to activity areas, please list them with the location

26. Existing/proposed waste treatment and equipment:

Plans—application to be accompanied by copies of plans showing:

- details and location of all processes, tanks, pits and apparatus associated with the generation of industrial waste
- details of the proposed liquid waste treatment processes
- details of pipes, floor drainage used to convey the effluent
- a full schematic layout of the proposed/existing waste pre-treatment facilities for liquid trade waste prior to discharge to the sewerage system
- flow diagram and hydraulic profile of proposed treatment apparatus
- capacity/dimensions, material of construction and lining, operation and maintenance of all pits, tanks, dosing systems, pumps, etc.
- details of the integrity of the pH correction system (diversion system, recording, alarms—location, failsafe, tamperproof)
- any additional details as requested by Essential
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- .

27. Details of the chemicals to be used on-site:

Table C1-7. Details of the chemical to be used on-site

Substance	Quantity	Storage liquid/solid	Location	Bunding

Note:

Attach Safety Data Sheets prepared in accordance with the state and national requirements for chemicals to be used and likely to be contained in the waste effluent. Refer to Code of Practice: Preparation of Safety Data Sheets for Hazardous Chemicals, Safe Work Australia 2018.

28. Any proposed plans for future expansion:

☐ Yes

☐ No

If 'Yes', give details on a separate attachment.

The applicant needs to be aware that approval of this application does not constitute a guarantee of any future approval of a variation to the approval. This will be dependent on the available capacity of the sewerage system at that time and any future approval must not be assumed.

However, alerting Essential Energy to the applicant's future plans and proposals may assist Essential Energy in planning future sewage management and/or infrastructure additions/modifications.

Any discharge approval that may be granted by Essential Energy does not replace any requirement to obtain approval or consent under any other Act, Regulation including but not limited to the *Environmental Planning and Assessment Act 2017* and the *Protection of the Environment Operations Act 1997*. It is the responsibility of the owner and /or applicant to ensure compliance with the conditions of any discharge approval granted and all other legislative requirements that may be applicable.

29. Supporting documentation:

- Please attach any relevant supporting documentation such as:
  - Environmental impact statement
  - Consultant's report
  - Environment Protection Authority considerations/restrictions

Signature of property owner/s _____ **Date** _____ / _____/_____
(Owner's authorisation to making the application is mandatory as per s. 78 of the Local Government Act 1993)

The owner of the property will be billed for water supply, sewerage and liquid trade waste services provided and it is the owner's responsibility to pay such fees and charges within the period specified. The owner may arrange to recover such fees and charges through the lease arrangement between the owner and the occupier.

Signature of occupier/applicant _____ **Date** _____ / _____/_____

Position in Company _____

OFFICE USE ONLY

Application date received _____

Site visit conducted _____

Application _____ (Approved / Refused)

Issue of _____

Approval No. _____

Commencement of discharge. _____ Officer in charge _____

Sewage treatment works details

_____Sewage treatment works

_____Design capacity (EP)

_____Actual capacity (EP)