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Our Ref: DD2017/5280

Mr Adam Prescott
General Manager
Neatport Pty Ltd T/A Suncoast Wastewater Management
59 Industrial Avenue
KUNDA PARK QLD 4556

Dear Mr Prescott

**RE: PRODUCT APPROVAL FOR OZZIKLEEN GTS10
GREYWATER TREATMENT SYSTEM**

Reference is made to your application seeking product approval for the above system.

I advise that, pursuant to Public and Environmental Health Regulation 91, a product approval is granted to market and sell the **Ozzikleen GTS10 Greywater Treatment System** ("the system") in the Northern Territory.

The product approval number is 10/17 and supersedes approval 03/12.

1. Description of the System

- 1.1. The system is designed to treat all domestic greywater, excluding kitchen waste for a maximum of 10 persons. The system is contained in a single cylindrical vertical axis type roto-moulded polyethylene tank with a total design capacity of 4850 Litres
- 1.2. The treatment process within the system involves an aeration process consisting of three main cycles:
 - **Aeration cycle:** The incoming greywater is aerated and oxygenated with air supplied by the air blower. The aeration cycle is maintained for a period of time to allow for biological breakdown of the organic waste and establish an activated sludge within the wastewater;
 - **Settling cycle:** After the aeration cycle, aeration ceases for approximately 60 minutes, allowing the activated sludge to settle to the bottom of the aeration tank. A layer of clear effluent is formed at the top of the aeration tank.
 - **Decanting cycle:** After a predetermined settling period, a decanting cycle takes place. The decanter device draws off the clear effluent from the top of the aeration tank. The decanting cycle continues until either the liquid level in the tank reaches the minimum level or the timer activates the system back into the aeration cycle.
- 1.3. While decanting the effluent is chlorinated and stored in a 520 litre (storage volume at decant level) effluent storage tank to ensure sufficient chlorine contact time prior to

discharge. The operation of the submersible pump within the storage tank is controlled by a pressure switch and three float switches. When there is water demand from the services within the dwelling, the pressure switch senses the pressure drop and turns on the pump.

- 1.4. The three float switches within the storage tank are set at different levels to control the discharge from the submersible pump and the mains potable water as a make-up when required. Excess effluent can be directed to an irrigation system or through an overflow connected to the sewer.

2. Conditions of Approval

2.1. General

- 2.1.1. Product approval is granted for a period of five years from the date of this approval (i.e. **18 July 2022**) and will lapse unless renewed by the submission of an application and receipt of a product approval from the Director Environmental Health at least 1 month prior to the expiry date.
- 2.1.2. The system is manufactured by Neatport Pty Ltd T/A Suncoast Wastewater Management ("the manufacturer") and shall be supplied, constructed and installed in accordance with the drawings and documents provided to the Department of Health (DoH).
- 2.1.3. The system shall be manufactured in accordance with the requirements of:
 - AS/NZS 1546.1.2008 as per SAI Global Standardsmark Licence SMKB20032;
 - Quality Management System as per SAI Global Certificate of Registration No: QMS40341; and
 - NSW Health DGTS: 2005 as per SAI Global Standardsmark Licence SMKH20282.
- 2.1.4. Any modification or variations to the design of the system shall be submitted for separate consideration by DoH.
- 2.1.5. Lids and access openings are to be fitted so as to be childproof.
- 2.1.6. The system must be fitted with an audio-visual alarm system installed in an appropriate location.
- 2.1.7. Each system shall be permanently and legibly marked with the following information:
 - Brand name of the system;
 - Manufacturer's name or registered trademark; and
 - Month and year of manufacture.
- 2.1.8. The system must comply with the provisions of the *Building Act* and Regulations and the *Public and Environmental Health Act* and Regulations that refer to the Code of Practice for Small On-site Sewage and Sullage Treatment Systems and the Disposal or Reuse of Sewage Effluent ("the Code"), the Administrative Procedures linked to the Code and any amendments to these documents.

- 2.1.9. All pumps and controls supplied with the system are to be suitable and durable for their intended purposes and operating environment within the Northern Territory.
- 2.1.10. DoH reserves the right to request from the manufacturer, results of field-testing of the system that were carried out for other regulatory authorities.
- 2.1.11. Effluent from the system taken in any random grab sample shall comply with the following:
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|---|---|
| 5-day Biochemical Oxygen Demand (BOD5) | less than 20 mg/L |
| Total Suspended Solids (TSS) | less than 30 mg/L |
| E.coli | less than 10 cfu/100ml |
| Free Available Chlorine (FAC) | not less than betwe0.5 mg/L, where chlorination is the disinfection process. |
- 2.1.12. DoH, by written notice, may cancel this product approval and require the repair, replacement, rectification, alteration of the system or part thereof:
- should the system or component thereof no longer be manufactured or available for purchase; or
 - if the system is defective and not able to perform the function for which the approval is issued; or
 - if the manufacturer fails to comply with one of more approval conditions; or
 - if the manufacturer within 30 days, fails to remedy a breach for which written notice has been given by DoH.
- 2.1.13. Officers from DoH and Department of Infrastructure, Planning and Logistics – Building Advisory Services (DIPL) reserve the right to inspect installations and also to assess installation and their performance.
- 2.1.14. DoH or DIPL, by written notice, may demand appropriate works be made by the owner if the system is operated outside the specifications stated in Sections 1 and 2, or in a manner that is prejudicial to public and environmental health or causes environmental nuisance.

2.2. Installation, Operation and Maintenance

- 2.2.1. The system must be installed by a licensed plumber in accordance with the *Building Act* and Regulations (within Building Control Areas) and the *Public Health and Environmental Health Act* and Regulations (outside Building Control Areas).
- 2.2.2. The installation of each system shall comply with the 'Installation Manual for Ozzikleen Greywater Treatment Plant Model – GTS10' and shall comply with the minimum setbacks as specified in the Code.
- 2.2.3. The blackwater from toilets must not be discharged into the system.
- 2.2.4. All electrical work must be carried out by a licensed electrician and in accordance with the relevant provisions of AS/NZS 3000.

- 2.2.5. No person should permit or cause any of the following substances to be discharged into the system, as it may harm, impair or decrease its effective operation:
- any storm water, including roof and rainwater tank overflow, and surface drainage waters;
 - any backflush waters from a swimming pool or water softener;
 - any discharge or backflush from a spa bath/pool;
 - any sanitary napkin, clothing or plastic material or liner;
 - any petrol or other flammable or explosive substance whether solid, liquid or gas;
 - any disinfectant or deodorant, antiseptic or germicide powder or fluid, unless specifically stated by the manufacturer to be suitable for use with septic tanks and only in quantities necessary for normal household cleaning;
 - any trade waste likely to be detrimental to the natural flora and fauna within the system; and
 - any matter or substance which in the opinion of DoH or DIPL is likely to impair the effective working of the system.
- 2.2.6. Vehicular traffic is to be excluded from the area around the system.
- 2.2.7. Cross connection of the system with the water supply for the premises must be prevented at all times. Backflow prevention devices are to be installed in accordance with DIPL requirements.
- 2.2.8. Commercial applications for the system will be dealt with on an individual basis and require a DoH Wastewater Works Design Approval. Refer to <https://nt.gov.au/property/building-and-development/wastewater-management>
- 2.2.9. The system is not to be installed in remote communities unless there is prior approval from DoH.
- 2.2.10. Desludging is to be carried out in accordance with the manufacturer's instructions, though it is recommended that systems with a high loading are frequently desludged.
- 2.2.11. NT Agents of the system shall:
- ensure that the purchaser of a system is provided with the relevant DoH notification/application forms which must be completed and lodged with DoH by the installer/agent. The distributor must remind the purchaser of the DoH administrative procedures concerning the installation of on-site wastewater systems and if necessary refer purchasers to DoH for further information;
 - ensure that the purchaser is provided with a 'Owners Manual for Ozzikleen Greywater Treatment Plant - Model - GTS10';
 - maintain a list of installed systems that includes details of system type, date sold, owners name, owners address, owners contact details, installers name, installers contact details, service dates and service agent; and
 - maintain a list of service dates.

- 2.2.12. The system once installed, must be maintained in a fully operational and sanitary state at all times by the user / owner in accordance with the product approval conditions, manufacturer's requirements and any other specific requirements by DoH or DIPL.
- 2.2.13. DoH requires that the owner/occupier of a premise enters into and maintains an annual service contract with the manufacturer or the manufacturer's appointed agent.
- 2.2.14. The system should be serviced at the intervals in accordance with the details set out in the 'Owners Manual for Ozzikleen Greywater Treatment Plant - Model - GTS10'. Records are to be kept of all maintenance of the system and are to be maintained on-site. DoH may request copies of the service records.
- 2.2.15. The irrigation system is required to be installed prior to the use and commissioning of the system. Note that spray irrigation, laundry use or toilet flushing is not permitted without prior permission from DoH.

Yours sincerely



Chris Daly
A/Director
Environmental Health Branch
Department of Health

18 July 2017

cc.

DoH Environmental Health Officers
DIPL - Building Advisory Services
DIPL - Construction Agency
NT Environment Protection Authority
Power and Water Corporation

