



CHIEF EXECUTIVE MODEL APPROVAL No. 04/2010
Plumbing and Drainage Act 2002, part 5, division 1, section 93

Approval

1. The **Aqua-Nova MBR10** ("the **system**") described in the Specifications and Drawings in the attached Schedule and manufactured by **Everhard Industries Pty Ltd** (ABN 009690859) ("the manufacturer") has been assessed in accordance with the Queensland Plumbing and Wastewater Code dated 17 June 2009.
2. Approval is granted for the advanced secondary wastewater treatment system, subject to compliance by the manufacturer with the requirements of the *Plumbing and Drainage Act 2002*, part 5, division 1, section 91 and the conditions of approval detailed below.
3. This approval, the conditions of approval and the Schedule comprise the entire chief executive approval document.
4. Any modification by the manufacturer to the design, drawings or specifications scheduled to this approval must be approved by the chief executive.

Lance Glare

A/Executive Director
Building Codes Queensland

Date approved: 27 January 2010

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63 George Street Brisbane
PO Box 15009, City East Qld 4002
Telephone +61 7 3237 0368
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ABN 61 331 950 314



Conditions of approval

1. The manufacture, installation, operation, service and maintenance of the systems must be in conformity with the conditions of this Chief Executive Approval.
2. The advanced secondary wastewater treatment system, which is an example of the approved systems, may only be used on premises that generate per day —
 - (a) a maximum hydraulic loading of 1,500 litres; and
 - (b) a maximum organic loading of 700 grams BOD₅.
3. The system must continue to meet the requirements of an advanced secondary quality greywater treatment system, producing the following effluent quality —
 - (a) Biochemical Oxygen Demand – less than or equal to 10mg/L; and
 - (b) Suspended Solids - less than or equal to 10 mg/L; and
 - (c) E.Coli count – not exceeding 10 fu/ 100 mL.
4. Each system must be serviced in accordance with the details supplied in the owner's service and maintenance manuals.

Lance Glare

**A/Executive Director
Building Codes Queensland**

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5. Each system must be supplied with —
 - (a) a copy of this Chief Executive Approval document;
 - (b) details of the system;
 - (c) instructions for authorised persons for its installation;
 - (d) a copy of the owner's manual to be given to the owner at the time of installation; and
 - (e) detailed instructions for authorised service personnel for its operation and maintenance.
6. This approval does not extend, apply to, or include the land application system used in conjunction with an approved system installed on premises.
7. The Chief Executive may, by written notice, cancel this approval if the manufacturer fails:
 - (a) to comply with one or more of the conditions of approval; or
 - (b) within 30 days, to remedy a breach, for which a written notice been given by the Chief Executive.
8. This approval may only be assigned with the prior written consent of the Chief Executive.
9. This approval expires on 25 January 2015 unless cancelled earlier in accordance with paragraph 7 above.

SCHEDULE

Attachment 1: Specifications for the Aqua-Nova MBR 10

Attachment 2: Drawings for the Aqua-Nova MBR 10

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Schedule 1: Specification

Aqua-Nova MBR10 Aerated Wastewater Treatment System

The Aqua-Nova MBR10 Aerated Wastewater Treatment System (AWTS) is designed to treat the wastewater from a residential dwelling occupied by a maximum of 10 persons. The Aqua-Nova MBR10 EP AWTS is contained in injection moulded polypropylene septic tanks and collection wells each with design capacities as set out below.

Operation

The Aqua-nova MBR10 treatment plant is a two tank system.

Wastewater flows into the first tank (Primary Tank). This tank acts as a septic tank removing most solids and fats/oils. Solids retained in this tank are digested anaerobically.

Water from this tank flows to a second tank where it is digested using Activated Sludge. This tank is fitted with a membrane system that has a pore size of less than 0.2microns providing a barrier system for the removal of bacteria. Aeration tubes located underneath the membranes provide the necessary oxygen to the system.

As the volume of water increases in the aeration chamber, a float switch activates a self priming pump. This pump draws water through the membranes at a rate of 2L/min. which is directed through a UV Cell as a precautionary measure.

Treated wastewater may be discharged directly to a disposal area below the treatment plant. However a pumpwell must be used in instances where the wastewater must be disposed of through high pressure systems or above the treatment plant.



Configuration

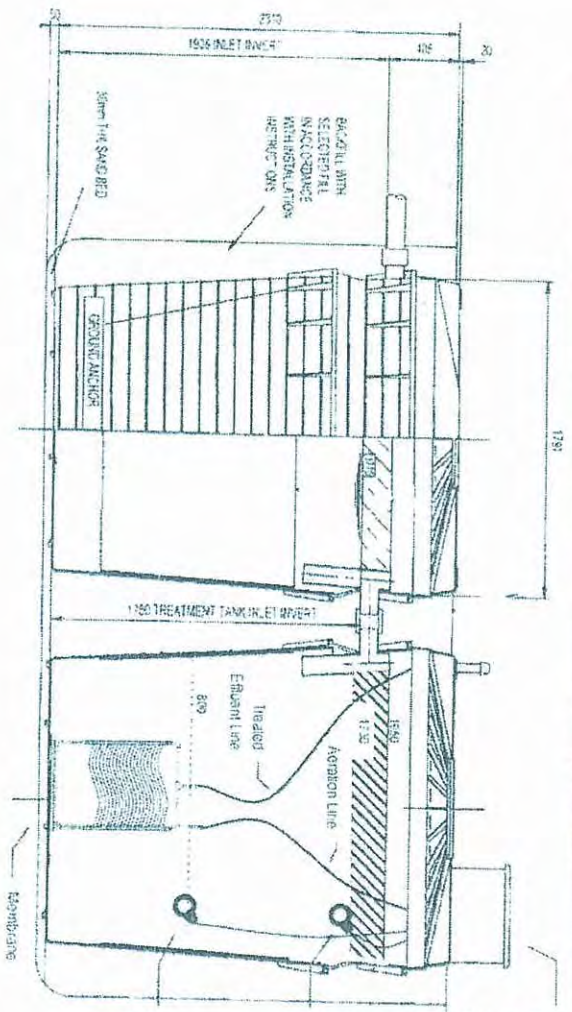
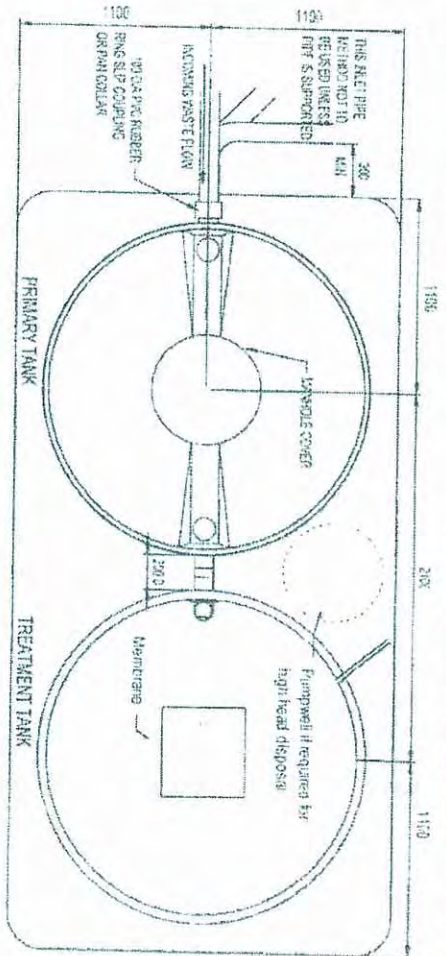
The Aqua-Nova NR AWTS is assembled in the following configurations:

Design capacities	Concrete 2 x 3900	Polymer 2 x 4000lt
primary sedimentation <ul style="list-style-type: none"> partition 	3900L	4000 lt
secondary treatment <ul style="list-style-type: none"> aeration chamber irrigation (where applicable) 	Yes	yes
emergency storage	3900L	4000 lt
	291lt	291 lt
	1000lt	1000 lt
operational water level <ul style="list-style-type: none"> primary secondary 	1500mm 800 - 1500mm	1770mm 800 – 1730mm

- A UV disinfection unit (3L/min) is installed on the pump out line.
- Johnson or ITT self-priming pump.
- Air is supplied to the contact aeration chamber by a Nitto LA80 air blower or equivalent, producing airflow of a nominal 100 litres/minute at 1.3 m water depth.
- Davey model D-25A submersible irrigation pump or equivalent is installed in the irrigation chamber where required.



THE INSTALLATION AND
 CLEARING TO BE IN
 ACCORDANCE WITH
 PROVISIONS AND NOTIONS
 PROVIDED WITH SYSTEM



SECTION - TREATMENT SYSTEM

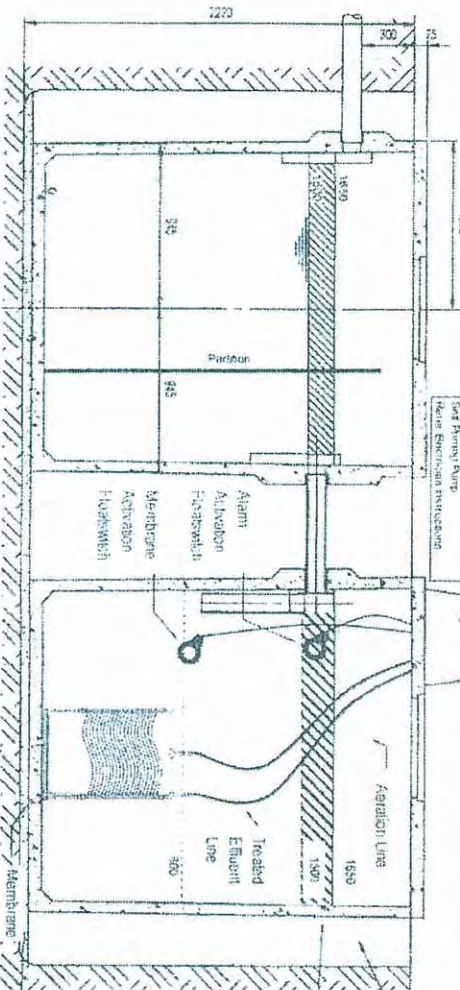
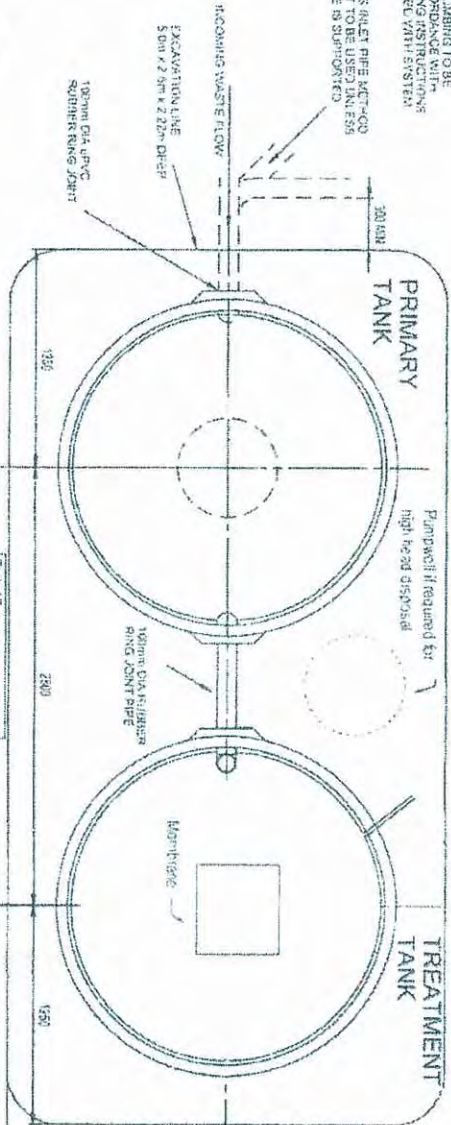
Department of Infrastructure and Planning
Chief Executive Approval
 Approval No: 04/2010
 Date of Issue: 25/1/00
 Delegate Signature: 
 Building Codes Qld

Spec	1	1	1	1	1
Quantity	1	1	1	1	1
Unit	m	m	m	m	m
Material	CONCRETE	STEEL	GLASS	GLASS	GLASS
Manufacturer	EVERHARD INDUSTRIES PTY LTD				
Notes	2 x 4000L Polymer Tank System				
Remarks	To be Assigned				

TANK INSTALLATION AND PLUMBING TO BE IN ACCORDANCE WITH PLUMBING INSTRUCTIONS PROVIDED WITH SYSTEM

THIS RILEY PIPE ACT-00 NOT TO BE USED IN F55 PIPE IS SUPPORTED

PLAN



CROSS SECTION

Code	Unit	Area	Volume	Weight
101	AQUANOVA MBR 10			
2 x 3900L Concrete Tank System				
102	EVEPHARD INDUSTRIES PTY LTD			
To Be Assigned				

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