

The Manager  
Biocycle (QLD) Pty Ltd  
PO Box 13  
**TOOWONG QLD 4066**

Dear Sir

**AUTHORISATION OF PREFABRICATED WASTEWATER TREATMENT SYSTEM**

The specifications and performance data for the Biocycle 4550 S.P. Conversion System have been examined. Authorisation is granted for the plant to treat wastewater from a domestic dwelling subject to the attached Conditions of Authorisation.

This authorisation is granted under the Sewerage and Water Supply Act, Standard Sewerage By-law 186(3).

Yours faithfully

J G Miller  
**DIRECTOR-GENERAL**

# PREFABRICATED SEWAGE TREATMENT PLANT

## BIOCYCLE (QLD) PTY LTD

### MODEL 4550 S.P. CONVERSION SYSTEM

#### CONDITIONS OF AUTHORISATION

1. This authorisation shall only apply to the Biocycle 4550 S.P. Conversion System.
2. Before installation of the authorised plant, approval shall be obtained from the relevant Local Authority and any requirements of that Local Authority in regard to the installation shall be complied with.
3. The plant, when installed, shall continue to perform satisfactorily, producing an effluent to comply with the following standard when tested in accordance with procedures recommended by DPI Water Resources:
  - (a) The 5 day Biochemical Oxygen Demand shall not exceed 20 mg/L in any sample.
  - (b) The suspended solids shall not exceed 30 mg/L in any sample.
  - (c) The E. Coli requirements shall be as follows:
    - the geometric mean for a daily set of 5 separate samples taken at 30 minute intervals shall not exceed 200 E. Coli per 100 ml.
    - no individual count shall exceed 1000 E. Coli per 100 ml.
  - (d) The free residual chlorine value shall be between 0.3 mg/L and 0.5 mg/L after 30 minutes average detention at the peak flow of at least 650 L over 2 hours
4. No modification to the specified process, equipment, materials and fittings shall be undertaken without prior authorisation from DPI Water Resources, Queensland.
5. The concrete structures forming part of the plant shall comply with the requirements of AS 1546-1990 in relation to strength, durability and quality of finish.
6. Should the plant prove to be unsatisfactory in any respect during service, and therefore require modification to achieve the prescribed standards, all installed Biocycle 45550 S.P. Conversion Systems shall be modified accordingly. It may be necessary to subject any modified model to full performance evaluation in

compliance with the DPI Water Resources' Authorisation procedures current at the time of re-testing.

7. The treatment plant is authorised for a hydraulic loading of up to 2000 litres per day and an organic waste loading of up to 700 grams BOD<sub>5</sub> per day.

8. No Biocycle 4550 S.P. Conversion System shall be installed at a domestic dwelling unless the existing septic tank or a newly installed septic tank has a liquid capacity of 2500 litres or greater.

9. The roof of the primary chamber (septic tank), and the secondary treatment tank shall be at or above ground level.

10. A chlorine contact chamber shall be incorporated in the plant. It shall have adequate capacity to provide 30 minutes detention at peak flow. The chlorine dosage equipment must be capable of providing a free residual chlorine level of 0.3 -0.5 mg/L after 30 minutes of peak flow without excessive residual levels for low flows.

11. The chlorinator shall be capable of operating without any attention or chemical replenishment for a period in excess of 3 months when the plant is operating at its design capacity.

12. The Manufacturer shall ensure that the plant is serviced by trained personnel at 3 monthly intervals and a service history kept on every plant. A copy of the three monthly service report shall be forwarded to the Local Authority and the Owner of the plant. The Local Authority shall be advised when an Owner fails to renew a Service Contract.

13. Each plant shall be permanently marked with the Manufacturer's name, registered trademark (if applicable), and product identification in a position readily visible after installation.

14. Each unit shall be supplied with a complete and detailed Owner's Instruction Manual for installation, initiation of service, operation and maintenance instructions for the information of the owner.

**Department of Natural Resources and Mines  
Queensland**

**MODEL APPROVAL (Biocycle 4550 S.P. Conversion AWTS)  
AMENDMENT No. 1  
Section 77—*Standard Sewerage Law***

1. The Biocycle 4550 S.P. Conversion Aerated Wastewater Treatment System was approved for use in Queensland by letter of authorisation dated 19 February 1993.
2. Department of Natural Resources and Mines has been advised that the approval for the Biocycle 4550 S.P. Conversion was acquired by Jowa Group Pty Ltd on 4 October 2000 and the approval should be amended.
3. Approval is granted for the modification described in clause 2 above and the conditions applying to the authorisation dated 19 February 1993, apply to the amended approval.

*Robert Reilly*

**R Reilly  
General Manager  
Water Industry Compliance**

Date approved: 3 July 2002

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PO Box 13  
**TOOWONG QLD 4066**

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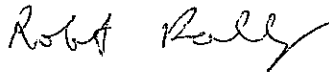
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**Department of Natural Resources and Mines  
Queensland**

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AMENDMENT No. 1  
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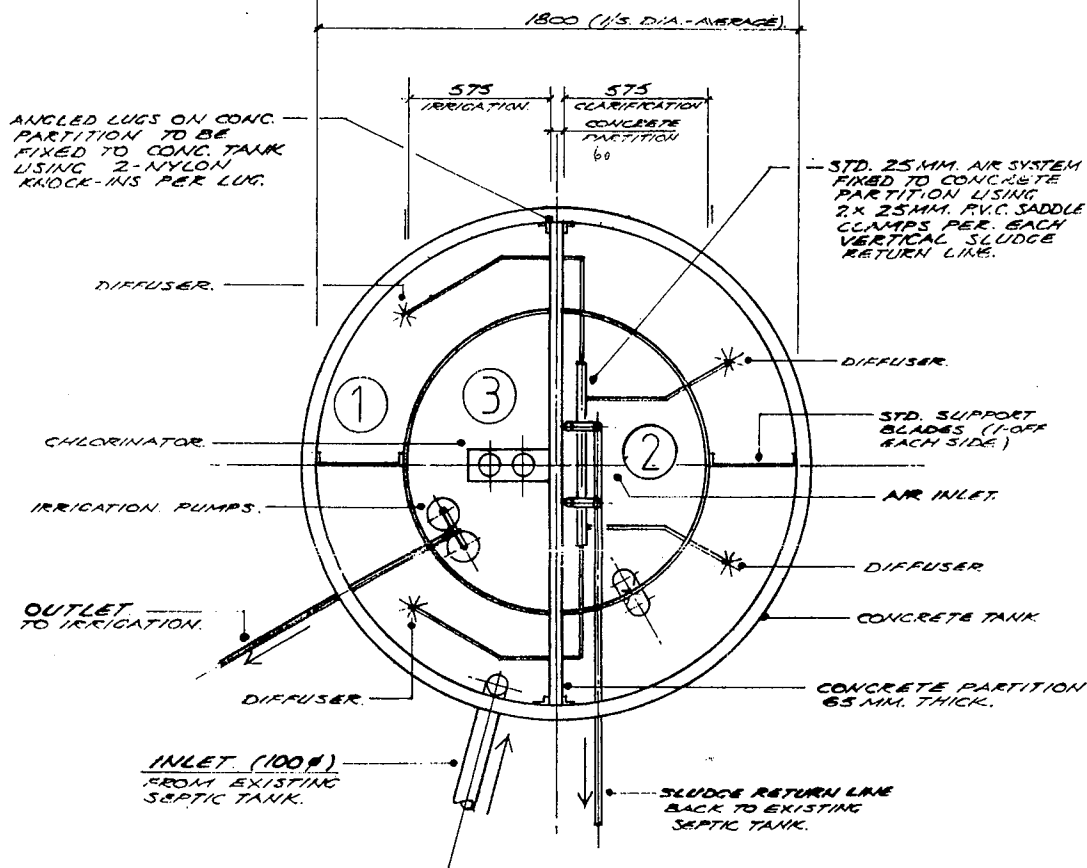
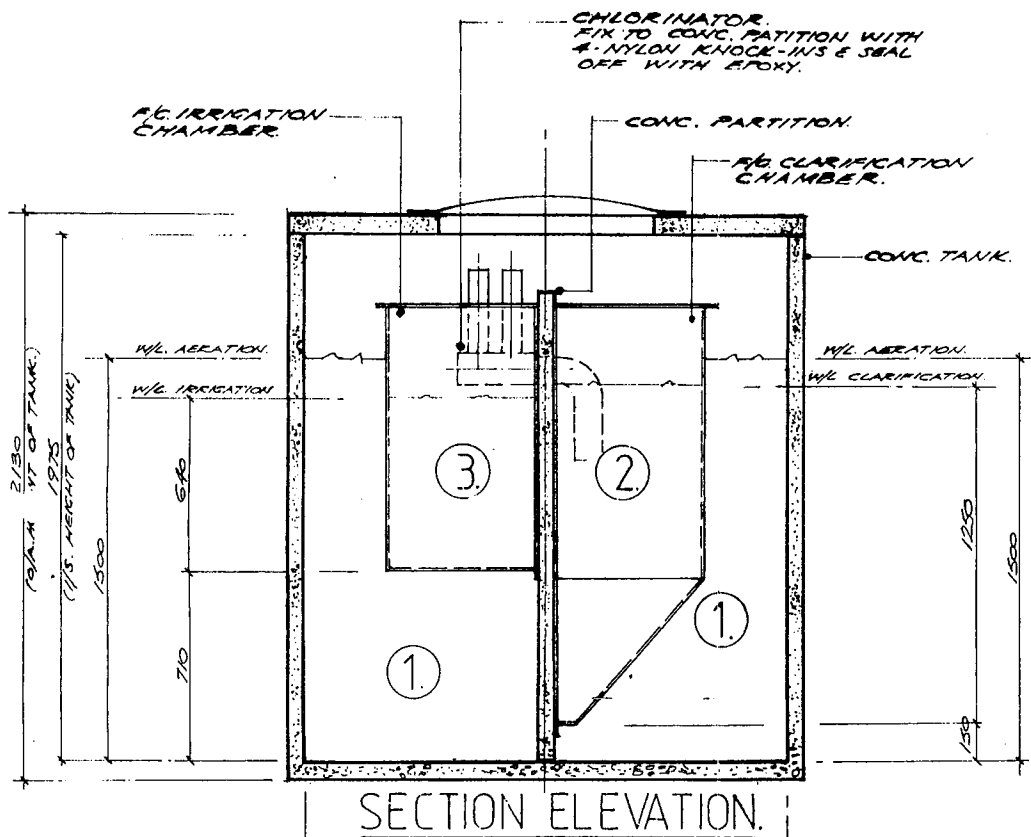
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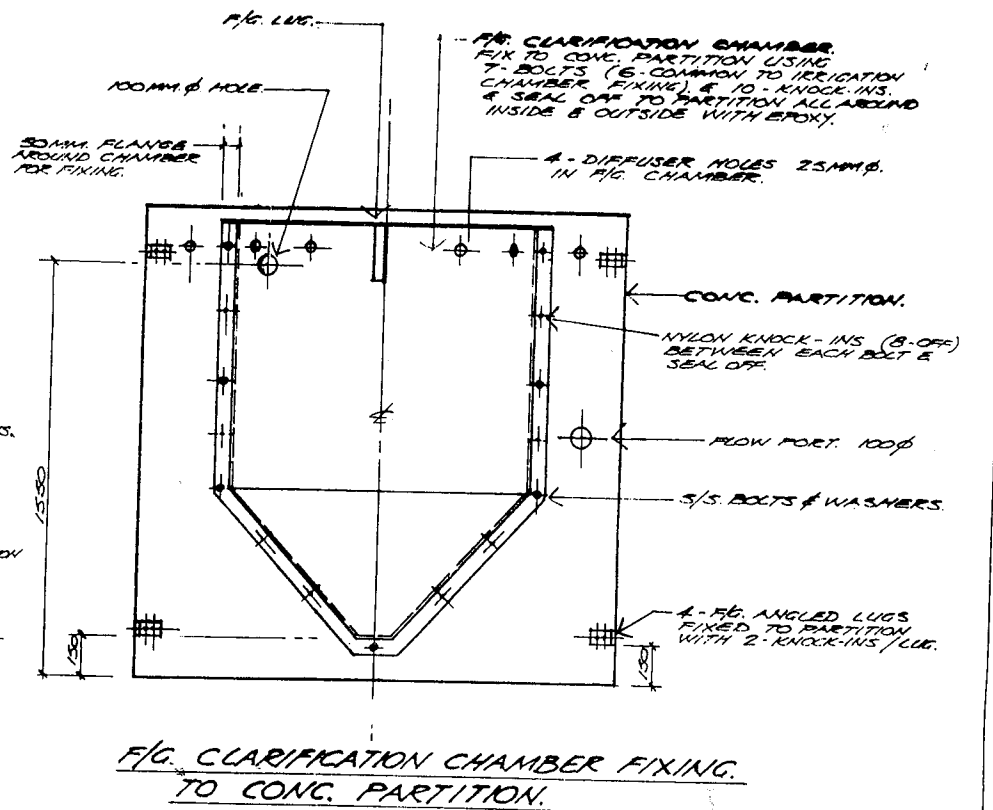
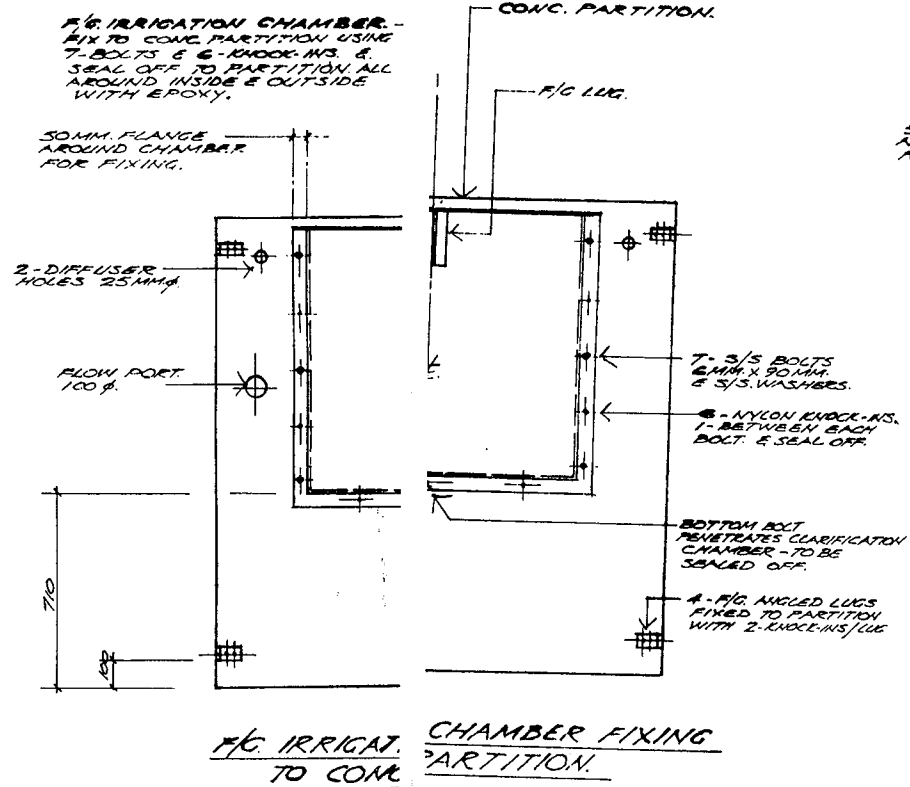
**R Reilly  
General Manager  
Water Industry Compliance**

Date approved: 3 July 2002

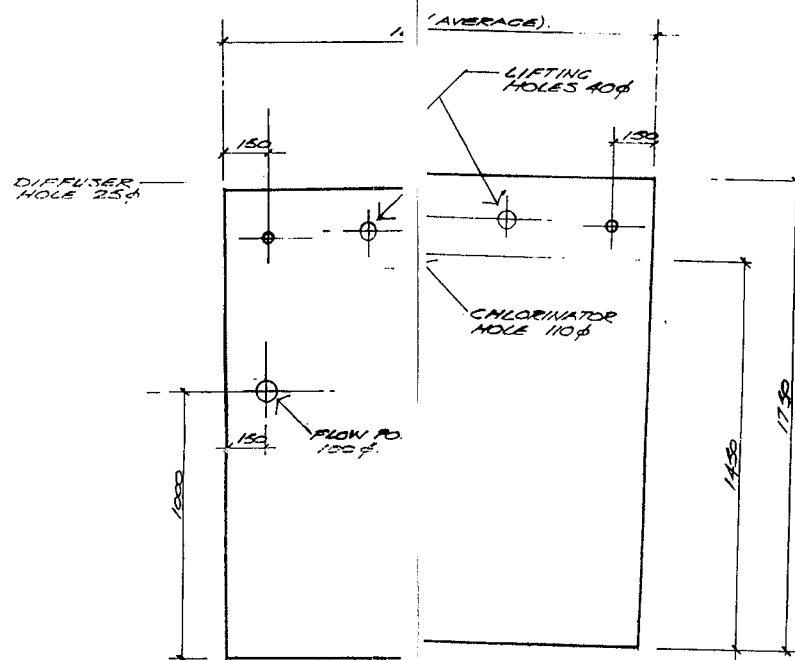




BIOCYCLE - 4550. SP.



TAILS OF ASSEMBLING F/G. CHAMBERS TO CONC. PARTITION.



**NOTE:**

CONC. TANK IS A STANDARD MANUFACTURED HOLDING WELL - WITH MINIMUM CAPACITY OF 4550 LITRES. I.E. THE TANK AS DETAILED IS 'EVERHARD' 4550 HOLDING WELL.

TANK SCHEDULE:				
NO.	TYPE.	LITRES	DEPTH (MM)	IL OF INTERCONNECTORS FROM TOP OF TANK.
*	SEPTIC TANK	EXISTING SYSTEM TO BE USED.		
1	AERATION TANK	2900 L	1500 MM	430 MM
2	CLARIFICATION.	450 L	1250 MM	475 MM
3	IRRIGATION.	330 L	640 MM	575 MM.

BIOCYCLE WASTE WATER  
TREATMENT SYSTEM.  
• BIOCYCLE - 4550 SP. (QLD.)