Approval

1. The Kingspan Advanced BioFicient (8EP/1200L) ("the system") described in the Specifications and Drawings in the attached Schedule and manufactured by Kingspan Water & Energy Pty Ltd ("the manufacturer") (ABN 62 108 491 881) ("the manufacturer") has been assessed in accordance with the Queensland Plumbing and Wastewater Code (QPW Code) dated 26 March 2019.

2. Approval is granted for the advanced secondary quality wastewater treatment system, subject to compliance by the manufacturer with the requirements of the Plumbing and Drainage Regulation 2018, and the conditions of approval detailed below.

3. This approval, the conditions of approval and the Schedule comprise the entire Treatment Plant 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.

Conditions of approval

5. The manufacture, installation, operation, service and maintenance of the systems must be in conformity with the conditions of this Treatment Plant Approval.

6. The system when tested by a certification accreditation body in accordance with AS1546.3:2017 was found to comply with the advanced secondary 8EP/1200L level without nutrient reduction effluent criteria and must continue to meet the following requirements:

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Secondary effluent</th>
<th>Advanced secondary effluent</th>
</tr>
</thead>
<tbody>
<tr>
<td>BOD₅</td>
<td>≤20 mg/L</td>
<td>≤10 mg/L</td>
</tr>
<tr>
<td></td>
<td>30 mg/L</td>
<td>20 mg/L</td>
</tr>
<tr>
<td>TSS</td>
<td>≤30 mg/L</td>
<td>≤10 mg/L</td>
</tr>
<tr>
<td></td>
<td>45 mg/L</td>
<td>20 mg/L</td>
</tr>
<tr>
<td>E. coli*</td>
<td>≤10 cfu/100 mL</td>
<td>≤10 cfu/100 mL</td>
</tr>
<tr>
<td></td>
<td>30 cfu/100 mL</td>
<td>30 cfu/100 mL</td>
</tr>
<tr>
<td>FAC</td>
<td>Minimum 0.5 mg/L</td>
<td>Minimum 0.5 mg/L</td>
</tr>
<tr>
<td></td>
<td>N/A</td>
<td>N/A</td>
</tr>
<tr>
<td>Turbidity</td>
<td>N/A</td>
<td>N/A</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Secondary effluent</th>
<th>Advanced secondary effluent</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Where disinfection is required.
† Minimum level, not 90% of samples.

7. Each system must be serviced in accordance with the accreditation certificate and details supplied in the owner’s operation and maintenance manual.
8. Each system must be supplied with —
   (a) a copy of this Treatment Plant 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 personal for its operation and maintenance.

9. At each anniversary of the Treatment Plant Approval date, the supplier must submit to the Chief Executive a list of all systems installed in Queensland during the previous 12 months. Where the Chief Executive is notified of any system failures the Chief Executive may randomly select a number of installed systems for audit. The Chief Executive will notify the supplier’s nominated NATA accredited laboratory which systems are to be audited for BOD⁵ and TSS. The sampling and testing of the selected systems, if required, is to be done at the supplier’s expense. The following results must be reported to the Chief Executive;
   (a) Address of premises;
   (b) Date inspected and sampled;
   (c) Sample identification number;
   (d) BOD⁵ for influent and effluent; and
   (e) TSS for influent and effluent.

10. The Chief Executive may, by written notice, cancel this approval if the manufacturer/supplier 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.

11. This approval may only be assigned with the prior written consent of the Chief Executive.

12. This approval expires on 10 September 2025 unless cancelled earlier in accordance with paragraph 10 above.

Lindsay Walker

Director
Plumbing, Drainage and Special Projects
Building Legislation and Policy
Date approved: 11 September 2020
TREATMENT PLANT APPROVAL No. 04/2020
Plumbing and Drainage Act 2018

SCHEDULE

Attachment 1

Drawings and Specifications for the

Kingspan Advanced BioFicient (8EP/1200L)
Global Certification Pty Ltd

Number 581

Product Performance Testing

AS 1546.3:2017

Advanced Secondary 1200 L/day or 8EP Level

Issued to

Kingspan Water and Energy Pty Ltd

3 Herbert Place, SMITHFIELD NSW 2164

Certification Date: - 11 June 2020 Expiry Date: - 10 June 2025

Product Certified:

<table>
<thead>
<tr>
<th>Model</th>
<th>Disinfection</th>
<th>Average Results over the Test Period</th>
<th>Servicing Frequency</th>
<th>Discharge</th>
<th>Manufactured and assembled</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kingspan Advanced BioFicient WWTP</td>
<td>Yes</td>
<td>TSS 4.1mg/l BOD5 1.07mg/l Turbidity 6.9 NTU E coli &lt;1 CFU/100ml</td>
<td>3 Monthly Service 2 yearly sedimentation pump out or as required</td>
<td>Pumped via disinfection/pump chamber with chlorine dispenser</td>
<td>Manufactured and Assembled: At 3 Herbert Place, SMITHFIELD NSW 2164</td>
</tr>
</tbody>
</table>

The system took 5 weeks to meet the advanced secondary standard. It is serviced 3 monthly.

NACE CODES: 3700

This Certificate of Conformance to the Product Certificate Scheme for "Domestic Wastewater Treatment Units (Septic Tanks) and Rainwater Tanks" remains the property of Global Certification Pty. Ltd. and is granted subject to the terms and conditions of the Contract Application, in respect of the Product certified on this page and the attached schedule to the Certification of Conformance, bearing the same number as this certificate.

Date of Issue: 11th June 2020

Bruce Smith Director


Signed for and on behalf of Global Certification Pty Ltd
PO Box 953 Belconnen ACT 2616

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Queensland Government

Treatment Plant Approval

Approved by: Lindsay Walker

Delegated Authority

Department of Housing & Public Works