



Government of **Western Australia**
Department of **Environment and Conservation**

Your ref: L8434/2010/1
Our ref: DEC14838
Phone: 9333 7521
Fax: 9333 7550
Email: bhabesh.das@dec.wa.gov.au

The Manager
Water Corporation
PO Box 100
LEEDERVILLE WA 6902

Dear Sir/Madam

ENVIRONMENTAL PROTECTION ACT 1986 – AMENDMENT TO LICENCE

L8434/2010/1

**Alkimos Wastewater Treatment Plant
Lot 1012 on Plan 69492, Romeo Road
ALKIMOS WA6038**

Further to my letter dated 27 March 2013, please find enclosed your amended *Environmental Protection Act 1986* licence.

If you have any questions or objections relating to the licence, please do not hesitate to contact the enquiries officer above on 9333 7521 for clarification or discussion of any grievances you have.

If you are concerned about, or object to any aspect of the amendment, you may lodge an appeal with the Minister for the Environment within 21 days from the date on which this licence is received. The Office of the Appeals Convenor can be contacted on 6467 5190 to find out the procedure and fee.

Members of the public may also appeal the amendments. The Appeals Registrar at the Office of the Appeals Convenor can be contacted after the closing date of appeals to check whether any appeals were received.

Yours sincerely

Stefan de Haan
Officer delegated under Section 20
of the *Environmental Protection Act 1986*

Wednesday, 24 April 2013

enc:

copy to: Local Government Authority: City of Wanneroo



AMENDED LICENCE FOR PRESCRIBED PREMISES

Environmental Protection Act 1986

LICENCE NUMBER: L8434/2010/1

FILE NUMBER: DEC14838

LICENSEE AND OCCUPIER OF PREMISES

Water Corporation
629 Newcastle Street
LEEDERVILLE WA 6007
ABN: 28 003 434 917

NAME AND LOCATION OF PREMISES

Alkimos Wastewater Treatment Plant
Lot 1012 on Plan 69492, Romeo Road
ALKIMOS WA 6038
(as depicted in attachment 2)


PRESCRIBED PREMISES CATEGORY

Schedule 1 of the *Environmental Protection Regulations 1987*

CATEGORY	DESCRIPTION	CAPACITY
54	Sewage facility: premises – a) on which sewage is treated (excluding septic tanks); or b) from which treated sewage is discharged onto land or into waters.	More than 2 000 cubic metres per day
61	Liquid waste facility: premises on which liquid waste produced on other premises (other than sewage waste) is stored, reprocessed, treated or irrigated.	100 tonnes or more per year

CONDITIONS OF LICENCE

Subject to the conditions of licence set out in the attached pages.


Stefan de Haan
Officer delegated under Section 20
of the *Environmental Protection Act 1986*

ISSUE DATE: Thursday, 26 May 2011
COMMENCEMENT DATE: Thursday, 26 May 2011
AMENDMENT DATE: Wednesday, 24 April 2013
EXPIRY DATE: Wednesday, 25 May 2016

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Environmental Protection Act 1986

LICENCE NUMBER: L8434/2010/1

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DEFINITIONS

"APHA-AWWA-WEF" means American Public Health Association; American Water Works Association; Water Environment Federation;

"AS/NZS 4323.3.2001" means Australian/New Zealand Standard 4323.3.2001

"Australian Standard 5667" means the most recent version and relevant part of AS/NZS 5667;

"Director" means Director, Environmental Regulation Division of the Department of Environment and Conservation for and on behalf of the Chief Executive Officer as delegated under Section 20 of the *Environmental Protection Act 1986*;

"Director" for the purpose of correspondence means-

Regional Manager, Swan Region
Department of Environment and Conservation
Locked Bag 104
BENTLEY DELIVERY CENTRE WA 6983

Booragoon Office:

181-205 Davy Street
BOORAGOON WA 6154

Telephone: 9333 7510
Facsimile: 9333 7550;

"chemical scrubbing system" means a chemical scrubbing system for the removal of odorous compounds;

"continuous monitor" means a monitor that measures the instantaneous concentration of exit gas at least every fifteen minutes;

"covers" means metallic or non-metallic solid covers with a seal used to cover the pre-treatment, primary treatment and areas of the treatment plant;

"histogram" means a chart, graph or table showing the results of specified monitoring over a specified interval;

"Inspector" means person appointed to be an inspector under section 88 of the *Environmental Protection Act 1986*;

"manual monitoring" means the implementation of a monitoring program undertaken by an independent consultant with measurement and sampling on site;

"mg/ m³" means milligram per cubic metre;

"m³/h" means cubic metre per hour;

"NATA" means National Association of Testing Authorities;

"premises" means Alkimos Wastewater Treatment Plant, Lot 1012 on Plan 69492, Romeo Road, Alkimos WA 6038 as depicted in **Attachment 2**;

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"odour control unit" means the photo-ionisation unit used at the plant to deodorise the air from the flow reception chamber, the inlet works, the screening equipments, the bioselector and the sludge treatment;

"ppm" means parts per million;

"sensitive receptor" means any land or building that is used as a residence, guest house, hotel, motel, caravan park, school, church, hospital, or as an office or consulting rooms, where such office or consulting rooms are not located in an industrial area;

"Stack" means the 50 m discharge stack used to release treated gas from the odour control unit and untreated gas from the oxidation ditches;

"sewage treatment" means the activity under which the premises is prescribed, and includes the treatment of sewage and the discharge of treated wastewater onto land or into waters;

"STP, dry" means Standard Temperature and Pressure. Gas volume and concentrations are expressed on dry basis at the standard temperature of 0°C, at discharge oxygen concentration and at an absolute pressure of 101.325 kPa;

"STP, wet" means Standard Temperature and Pressure. Gas volume and concentrations are expressed on wet basis at the standard temperature of 0°C, at discharge oxygen concentration and at an absolute pressure of 101.325 kPa; and

"USEPA" means United States Environmental Protection Agency.

GENERAL CONDITIONS

ANNUAL ENVIRONMENTAL REPORT

1. The licensee shall submit to the Director, by **1 September** each year, an Annual Environmental Report providing the following information obtained during the monitoring period beginning 1 July the previous year and ending June in that year:
 - (i) a histogram showing the daily maximum and daily average concentrations of hydrogen sulphide emissions and the volumetric flow measured in accordance with condition 8(a);
 - (ii) tabulated results of continuous monitor availability for each calendar month from the information required to be recorded by condition 8(c);
 - (iii) results of odour control unit, oxidation ditches and stack manual monitoring undertaken in accordance with condition 10;
 - (iv) a histogram showing the volumes of treated wastewater discharged each month through the Alkimos ocean outlet and re-use schemes;
 - (v) a histogram showing the monthly average loadings for total nitrogen in treated wastewater discharged to the ocean from Alkimos WWTP through the Ocean Outlet in kg/day;
 - (vi) a histogram showing the results of treated wastewater monitoring required by condition 14, including duplicate NATA accredited laboratory results; and
 - (vii) a summary of the complaints including all the information required to be recorded by condition 3.

ANNUAL AUDIT COMPLIANCE REPORT

2. The licensee shall by **1 September** in each year, provide to the Director an Annual Audit Compliance Report in the form in **Attachment 1** to this licence, signed and certified in the

CONDITIONS OF LICENCE

Environmental Protection Act 1986

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manner required by Section C of the form, indicating the extent to which the licensee has complied with the conditions of this licence, and any previous licence issued under Part V of the Act for the Premises beginning 1 July the previous year and ending on 30 June in that year .

COMPLAINTS

3. The licensee shall keep a written record of all complaints received at the premises. The record must be dated and provide the following information (if known):
- (i) date and time of complaint;
 - (ii) location about which the complaint was made;
 - (iii) general description of the nature of complaint;
 - (iv) wind direction, wind speed and temperature at the time of the complaint;
 - (v) likely source of the reported problem; and
 - (vi) action taken in response to the complaint.

This record, or copies thereof, shall be made available to the Director on request.

DISCHARGE TO AIR

INLET SEWER

4. The licensee shall ensure the inlet sewer is sealed at all times, except during times that maintenance works are being undertaken.

PRELIMINARY AND PRIMARY TREATMENT AREAS

5. The licensee shall ensure the preliminary and primary treatment areas are covered at all times, except during times that maintenance works are being undertaken.

ODOUR CONTROL UNIT

6. The licensee shall operate and maintain an effective odour control unit in accordance with the manufacturer photo-ionisation unit's specifications for the wastewater treatment plant.

ODOUR CONTROL STACK – CONTINUOUS MONITORING

- 7(a) The licensee shall continuously monitor the parameters specified in column 1 of Table 1 at the locations specified in column 2 of Table 1 and record the results of the monitoring in the units specified in column 3 of the Table 1.

Table 1: Continuous monitoring requirements for odour control

Column 1	Column 2	Column 3
Parameters	Location	Units
Hydrogen sulphide	Stack outlet	ppm
Volumetric flow	Stack outlet	m ³ /h at STP dry

- 7(b) The licensee shall ensure that the continuous monitors utilised to monitor the parameters as required by condition 7(a), are maintained and calibrated in accordance with the manufacturer's specifications.
- 7(c) The licensee shall monitor and record the availability of the continuous monitors referred to in condition 7(b) on a monthly basis and ensure that they are operated to achieve at least 90 per cent availability each calendar year.

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- 8 ODOUR CONTROL STACK- TARGET
The licensee shall operate the odour control unit to achieve a hydrogen sulphide emission target of less than 1.5 ppm at the stack outlet as monitored in accordance with the condition 7(a) of this licence.

9. ODOUR CONTROL STACK - MANUAL MONITORING
The licensee shall monitor each of the parameters stated in column 1 of Table 2, at the locations stated in column 2 of Table 2, at the frequency stated in column 3 of Table 2 using the methods specified in column 4 of Table 2, and record the results in the units specified in column 5 of Table 2.

Table 2: Odour control stack - manual monitoring

Column 1	Column 2	Column 3	Column 4	Column 5
Parameters	Measurement and sampling locations	Monitoring frequency	Sampling method	Units
Hydrogen sulphide	Stack outlet	Six monthly (July, January)	NATA accredited method for the measurement and analysis of hydrogen sulphide emissions from stationary sources	mg/ m ³ at STP, dry
Odour			AS/NZS 4323.3:2001	ou
Volumetric flow rate			USEPA method 2	m ³ /s at STP, dry and at STP, wet
Temperature			n/a	⁰ C

- 10 ODOUR CONTROL STACK- LIMITS
The licensee shall ensure that the emissions of the parameters specified in Column 1 of Table 3, from the locations stated in column 2 of Table 3, monitored as required by condition 9, do not exceed the concentration limits specified in column 3 and 4 of Table 3.

Table 3: Odour Control facility emission limits

Column 1	Column 2	Column 3	Column 4
Parameter	Location	Concentration limit	Mass emission rate limit
Hydrogen sulphide	Stack outlet	5mg/m ³ at STP, dry	0.14g/s at STP, dry

- 11(a). The licensee shall notify the Director, in writing, before 5pm on the next usual business day after becoming aware of any confirmed measurement which indicates that an emission target as specified in condition 8 or an emission limit as specified in condition 10 has been exceeded.

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- 11(b) The licensee shall follow the notification referred to in condition 11(a) of this licence with a written report to the Director within five working days of receiving the confirmed measurement and shall include but not be limited to:
- (i) the date and time of the exceedance;
 - (ii) monitoring results at the time of exceedance;
 - (iii) the cause of the exceedance;
 - (iv) an estimate of the period over which the limit was exceeded;
 - (v) an indication of known or potential environmental impacts;
 - (vi) corrective actions taken or planned to mitigate environmental consequences resulting from the exceedance; and
 - (vii) corrective action taken or planned to prevent a recurrence of the exceedance.

ODOUR CONTROL CONDITIONS

12. The licensee shall ensure that odour emitted from the premises does not unreasonably interfere with the health, welfare, convenience, comfort or amenity of any person at a sensitive receptor.

DISCHARGE TO WATER

MONITORING OF DISCHARGED TREATED WASTEWATER

- 13(a) The licensee shall monitor and record the cumulative monthly volumes of treated wastewater being discharged to the ocean via Alkimos ocean outlet as recorded via the inlet magflow.
- 13(b) The licensee shall monitor the concentration of the parameters stated in column 1 of Table 4, at the monitoring frequency stated in column 2 of Table 4, within treated wastewater being discharged from the Alkimos WWTP to the ocean through the Alkimos Ocean Outlet at the treated wastewater sampling point depicted in **Attachment 3** and the results shall be recorded in the units stated in column 3 of Table 4.

Table 4: Monitoring of discharged treated wastewater

Column 1	Column 2	Column 3
Parameters	Monitoring frequency	Units
Total Nitrogen, Total Phosphorus	Monthly	Kilograms per day (monthly average)
pH	Six monthly	pH unit
E.Coli		Most probable number per 100 ml
Total suspended solids, 5-Day Biochemical Oxygen Demand (filtered), Oil and Grease, Arsenic, Cadmium, Copper, Chromium, Lead, Mercury, Nickel and Zinc		mg/l

- 13(c) The licensee shall ensure that all water samples are collected, handled and preserved in accordance with the relevant parts of the Australian Standard 5667.

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- 13(d) The licensee shall ensure that all water samples are analysed in accordance with the current "Standard Methods for Examination of Water and Wastewater," APHA-AWWA-WEF.
- 13(e) The licensee shall analyse all water samples, required to be monitored by any condition of this licence, in its own laboratory, or ensure that samples are analysed in a laboratory holding NATA accreditation for the analyses specified. If the licensee uses its own laboratory, then at least one set of samples per year shall also be submitted to a laboratory holding NATA accreditation for the analysis specified.
- 14 The licensee shall ensure that the load for total nitrogen in the treated wastewater discharged from the AlkimosWWTP to the ocean via the Alkimos ocean outlet does not exceed 2400 kilograms per day recorded over the financial year.

DISCHARGE TO LAND

MANAGEMENT OF PROCESS SOLID WASTES

- 15(a) The licensee shall dispose of all collected grit and screenings from the pre-treatment area to a licensed or registered landfill.
- 15(b) The licensee shall dispose of sludge and biosolids in accordance with the document *Western Australian Guidelines for Direct Land Application of Biosolids and Biosolids Products*, Department of Environmental Protection, Water and Rivers Commission and Department of Health (February, 2002) (as amended).

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ATTACHMENT 1: ANNUAL AUDIT COMPLIANCE REPORT

SECTION A

LICENCE DETAILS

Licence Number:	Licence File Number:
Company Name:	ABN:
Trading as:	
Reporting period: _____ to _____	

STATEMENT OF COMPLIANCE WITH LICENCE CONDITIONS

1. Were all conditions of licence complied with within the reporting period? (please tick the appropriate box)

Yes ☐ Please proceed to Section C
No ☐ Please proceed to Section B

Each page must be initialed by the person(s) who signs Section C of this annual audit compliance report

INITIAL: _____

CONDITIONS OF LICENCE

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SECTION B - DETAILS OF NON-COMPLIANCE WITH LICENCE CONDITION.

Please use a separate page for each licence condition that was not complied with.

a) Licence condition not complied with?	
b) Date(s) when the non compliance occurred, if applicable?	
c) Was this non compliance reported to DEC?	
<input type="checkbox"/> Yes <input type="checkbox"/> Reported to DEC verbally Date _____ <input type="checkbox"/> Reported to DEC in writing Date _____	<input type="checkbox"/> No
d) Has DEC taken, or finalised any action in relation to the non compliance?	
e) Summary of particulars of non compliance, and what was the environmental impact?	
f) If relevant, the precise location where the non compliance occurred (attach map or diagram)	
g) Cause of non compliance	
h) Action taken or that will be taken to mitigate any adverse effects of the non compliance	
i) Action taken or that will be taken to prevent recurrence of the non compliance	

Each page must be initialed by the person(s) who signs Section C of this annual audit compliance report

INITIAL: _____

CONDITIONS OF LICENCE

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SECTION C - SIGNATURE AND CERTIFICATION

This Annual Audit Compliance Report may only be signed by a person(s) with legal authority to sign it. The ways in which the Annual Audit Compliance Report must be signed and certified, and the people who may sign the statement, are set out below.

Please tick the box next to the category that describes how this Annual Audit Compliance Report is being signed. If you are uncertain about who is entitled to sign or which category to tick, please contact the licensing officer for your premises.

If the licence holder is		The Annual Audit Compliance Report must be signed and certified:
an individual	<input type="checkbox"/>	by the individual licence holder, or
	<input type="checkbox"/>	by a person approved in writing by the Chief Executive Officer of the Department of Environment and Conservation to sign on the licensee's behalf.
A firm or other unincorporated company	<input type="checkbox"/>	by the principal executive officer of the licensee; or
	<input type="checkbox"/>	by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment and Conservation.
A corporation	<input type="checkbox"/>	by affixing the common seal of the licensee in accordance with the Corporations Act 2001; or
	<input type="checkbox"/>	by two directors of the licensee; or
	<input type="checkbox"/>	by a director and a company secretary of the licensee, or
	<input type="checkbox"/>	if the licensee is a proprietary company that has a sole director who is also the sole company secretary – by that director, or
	<input type="checkbox"/>	by the principal executive officer of the licensee; or
	<input type="checkbox"/>	by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment and Conservation.
A public authority (other than a local government)	<input type="checkbox"/>	by the principal executive officer of the licensee; or
	<input type="checkbox"/>	by a person with authority to sign on the licensee's behalf who is approved in writing by the Chief Executive Officer of the Department of Environment and Conservation.
a local government	<input type="checkbox"/>	by the chief executive officer of the licensee; or
	<input type="checkbox"/>	by affixing the seal of the local government.

It is an offence under section 112 of the *Environmental Protection Act 1986* for a person to give information on this form that to their knowledge is false or misleading in a material particular. There is a maximum penalty of \$50,000 for an individual or body corporate.

I/We declare that the information in this annual audit compliance report is correct and not false or misleading in a material particular.

SIGNATURE: _____

SIGNATURE: _____

NAME: (printed) _____

NAME: (printed) _____

POSITION: _____

POSITION: _____

DATE: ____/____/____

DATE: ____/____/____

SEAL (if signing under seal)

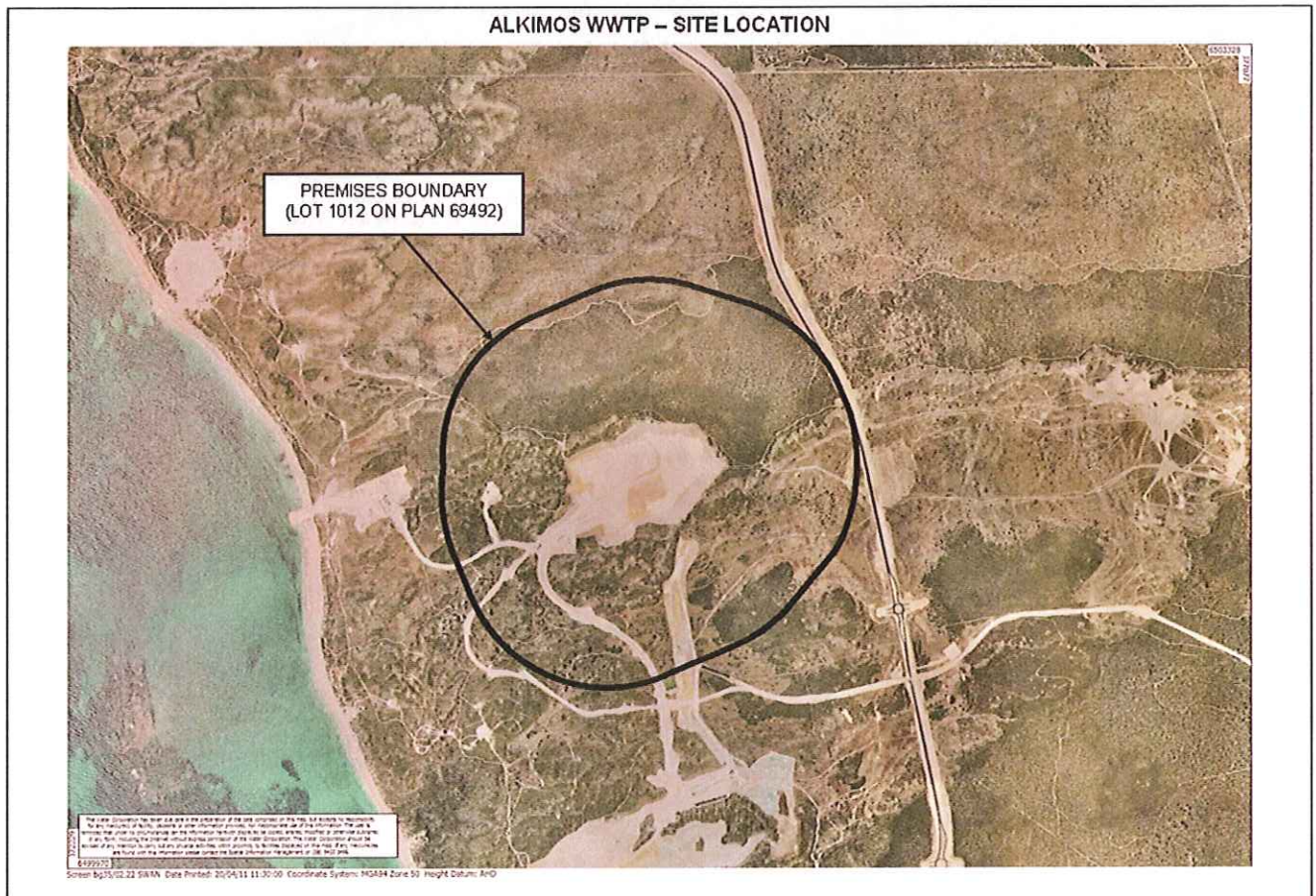
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ATTACHMENT 2: PLAN OF PREMISES



ATTACHMENT 3: WASTEWATER SAMPLING POINT

