

WOLLONDILLY SHIRE COUNCIL
ABN 93 723 245 808
PO BOX 21
PICTON NSW 2571

Attention: Ms Mandy Marino

Notice Number 1627368

File Number 301925A4

Date 27-Jun-2023

VARIATION OF SURRENDER CONDITION

BACKGROUND

- A. WOLLONDILLY SHIRE COUNCIL (Licensee) is the holder of Environment Protection Licence No. 6062 (Licence) issued under the *Protection of the Environment Operations Act 1997* (Act). The Licence authorised the carrying out of activities at PRODUCTION AVE, WARRAGAMBA, NSW, 2752 (Premises).
- B. The Licence was surrendered on 16 October 2014 by Surrender Notice No. 1525622 (Notice), subject to various conditions.
- C. On 18 August 2016 the Notice was varied by Notice to Vary Surrender Condition No. 1533821 (First Variation).
- D. On 18 July 2018 the EPA notified the Licensee of a number of issues relating to the gas collection and monitoring system installed at the Premises. These issues had resulted in non-compliance with the First Variation.
- E. On 5 October 2018 the EPA received a report, prepared by GHD Pty Ltd and commissioned by the Licensee, titled "Warragamba Waste Management Centre Peer Review of Landfill Gas Related Documents" (GHD Report).
- F. The GHD Report outlined eight recommended actions required to be undertaken by the Licensee to rectify issues identified with the gas collection and monitoring system. The GHD Report also outlined indicative timeframes for the completion of each action.



- G. On 19 December 2018 the Notice was varied by Notice to Vary a Surrender Condition No. 1573699 (Second Variation). The Second Variation conditioned the implementation of the eight recommended actions made in the GHD Report within the timeframes indicated in the GHD Report and removed Condition F1 conditioned in the First Variation.
- H. On 24 January 2022 the EPA received a report, prepared by SMEC Australia Pty Ltd (SMEC) and commissioned by the Licensee, titled "Warragamba Waste Management Centre Annual Report 2021" (2021 Report). The 2021 Report advised that a number of the recommended actions conditioned by the Second Variation had not been completed.
- I. On 3 March 2022 the EPA wrote to the Licensee requesting an update on the outstanding actions conditioned in the Second Variation.
- J. On 1 April 2022 the EPA received from the Licensee a response to the letter of 3 March 2022, reference number 1808#1092, titled "Warragamba Waste Management Centre EPL 6062 Peer Review of Landfill Gas Related Documents".
- K. On 17 May 2022 the EPA received a report, prepared by SMEC and commissioned by the Licensee, titled "Landfill Gas Bore Network Installation Approach Warragamba Waste Management Centre" (SMEC Report) and a document titled "Appendix 2: Key dates for completion of Actions 6 to 8 in Variation of Surrender Condition" (Appendix 2).
- L. The SMEC Report detailed the proposed methodology for the installation of groundwater and landfill gas monitoring bores at the Premises and Appendix 2 detailed the key dates for completion of the works.
- M. On 20 May 2022 the Notice was varied by Notice to Vary Surrender Condition No. 1619004 (Third Variation). The Third Variation conditioned the installation of the groundwater and landfill gas monitoring bore network in accordance with the methodology detailed in the SMEC Report and within the timeframes detailed in Appendix 2.
- N. On 7 October 2022 the EPA received a report, prepared by SMEC and commissioned by the Licensee, titled "Warragamba Waste Management Centre Preliminary Landfill Gas Risk Assessment" (PLGRA). The PLGRA made a number of recommendations in relation to monitoring at the Premises and contained information about the positioning of bore EPA 19. The EPA sought internal expert advice in relation to the recommendations within the PLGRA and information provided regarding EPA 19.
- On 17 January 2023 the EPA received a report, prepared by SMEC and commissioned by the Licensee, titled "Warragamba Waste Management Centre Warragamba Annual Report 2022" (2022 Report). The 2022 Report recommended a number of changes to the monitoring regime undertaken at the Premises as conditioned in the First Variation.
- P. On 21 March 2023 the EPA received and email from the Licensee containing a Technical Memorandum prepared by SMEC confirming that monitoring bore EPA 19a, replacing EPA 19, had been installed and was fit for purpose.
- Q. The EPA has reviewed the PLGRA and 2022 Report and, as a result, the conditions of Approval of the Surrender of Licence No. 6062 are being varied to:



- include additional perimeter groundwater and subsurface landfill gas monitoring points;
- remove the requirement to monitor subsurface landfill gas at monitoring points located within the waste mass;
- remove the requirement to monitor surface gas in the area directly above the waste mass; and
- amend the monitoring regime for the Premises.
- R. On 15 June 2023 the EPA sent draft Notice to Vary a Surrender Condition 1627368 to the Licensee for comment.
- S. On 26 June 2023, the EPA received an email from the Licensee advising that draft Notice to Vary a Surrender Condition No. 1627368 was accepted as drafted.
- T. Whilst varying the Surrender Condition, the EPA has taken into consideration several matters required by Section 45 of the Act.

VARIATION OF SURRENDER CONDITION

- 1. By this notice the EPA varies the condition/s of the Approval of the Surrender of Licence 6062 in the following ways;
 - All conditions previously stated in the:
 - Notice;
 - First Variation:
 - · Second Variation; and
 - Third Variation

have been replaced with the following conditions:

Discharges to Air and Water and Applications to Land

A1 Location of monitoring/discharge points and areas

A1.1 The following points referred to in the table below are identified in this Notice for the purposes of monitoring and/or the setting of limits for the emission of pollutants to the air from the point.

Air

EPA identification no.	Type of Monitoring point	Type of Discharge point	Location Description
15	Subsurface gas		Subsurface landfill gas monitoring point



	monitoring	labelled EPA15 on Premises Map titled Site Map and Monitoring Locations dated 3 March 2023 and prepared by SMEC Australia Pty Ltd (EPA ref DOC23/204213)
16	Subsurface gas monitoring	Subsurface landfill gas monitoring point labelled EPA16 on Premises Map titled Site Map and Monitoring Locations dated 3 March 2023 and prepared by SMEC Australia Pty Ltd (EPA ref DOC23/204213)
17	Subsurface gas monitoring (dual purpose bore)	Subsurface landfill gas monitoring point labelled EPA17 on Premises Map titled Site Map and Monitoring Locations dated 3 March 2023 and prepared by SMEC Australia Pty Ltd (EPA ref DOC23/204213)
18	Subsurface gas monitoring	Subsurface landfill gas monitoring point labelled EPA18 on Premises Map titled Site Map and Monitoring Locations dated 3 March 2023 and prepared by SMEC Australia Pty Ltd (EPA ref DOC23/204213)
19A	Subsurface gas monitoring	Subsurface landfill gas monitoring point labelled EPA19A on Premises Map titled Site Map and Monitoring Locations dated 3 March 2023 and prepared by SMEC Australia Pty Ltd (EPA ref DOC23/204213)
20	Subsurface gas monitoring (dual purpose bore)	Subsurface landfill gas monitoring point labelled EPA20 on Premises Map titled Site Map and Monitoring Locations dated 3 March 2023 and prepared by SMEC Australia Pty Ltd (EPA ref DOC23/204213)
21	Subsurface gas monitoring	Subsurface landfill gas monitoring point labelled EPA21 on Premises Map titled Site Map and Monitoring Locations dated 3 March 2023 and prepared by SMEC Australia Pty Ltd (EPA ref DOC23/204213)
22	Subsurface gas monitoring	Subsurface landfill gas monitoring point labelled EPA22 on Premises Map titled Site Map and Monitoring Locations dated 3 March 2023 and prepared by SMEC Australia Pty Ltd (EPA ref DOC23/204213)
23	Subsurface gas monitoring (dual purpose bore)	Subsurface landfill gas monitoring point labelled EPA23 on Premises Map titled Site Map and Monitoring Locations dated 3 March 2023 and prepared by SMEC Australia Pty Ltd (EPA ref DOC23/204213)



- A1.2 The following point referred to in the table below are identified in this Notice for the purposes of the monitoring and/or the setting of limits for discharges of pollutants to water from the point.
- A1.3 The following utilisation areas referred to in the table below are identified in this Notice for the purposes of the monitoring and/or the setting of limits for any application of solids or liquids to the utilisation area.

Water and land

EPA identification no.	Type of Monitoring point	Type of Discharge point	Description of location
1	Surface water monitoring		Surface water monitoring point labelled EPA1 on Premises Map titled Site Map and Monitoring Locations dated 3 March 2023 and prepared by SMEC Australia Pty Ltd (EPA ref DOC23/204213)
2	Surface water monitoring		Surface water monitoring point labelled EPA2 on Premises Map titled Site Map and Monitoring Locations dated 3 March 2023 and prepared by SMEC Australia Pty Ltd (EPA ref DOC23/204213)
3A	Groundwater monitoring		Groundwater monitoring point labelled EPA3A on Premises Map titled Site Map and Monitoring Locations dated 3 March 2023 and prepared by SMEC Australia Pty Ltd (EPA ref DOC23/204213)
4	Groundwater monitoring		Groundwater monitoring point labelled EPA4 on Premises Map titled Site Map and Monitoring Locations dated 3 March 2023 and prepared by SMEC Australia Pty Ltd (EPA ref DOC23/204213)
5	Groundwater monitoring		Groundwater monitoring point labelled EPA5 on Premises Map titled Site Map and Monitoring Locations dated 3 March 2023 and prepared by SMEC Australia Pty Ltd (EPA ref DOC23/204213)
6	Leachate monitoring		Leachate collection tank labelled EPA6 on Premises Map titled Site Map and Monitoring Locations dated 3 March 2023 and prepared by SMEC Australia Pty Ltd (EPA ref DOC23/204213)
13	Groundwater monitoring		Groundwater monitoring point labelled EPA13 on Premises Map titled Site Map and Monitoring Locations dated 3 March 2023 and prepared by SMEC Australia Pty



		Ltd (EPA ref DOC23/204213)
14	Groundwater monitoring	Groundwater monitoring point labelled EPA14 on Premises Map titled Site Map and Monitoring Locations dated 3 March 2023 and prepared by SMEC Australia Pty Ltd (EPA ref DOC23/204213)
17	Groundwater monitoring (dual purpose bore)	Groundwater monitoring point labelled EPA17 on Premises Map titled Site Map and Monitoring Locations dated 3 March 2023 and prepared by SMEC Australia Pty Ltd (EPA ref DOC23/204213)
20	Groundwater monitoring (dual purpose bore)	Groundwater monitoring point labelled EPA20 on Premises Map titled Site Map and Monitoring Locations dated 3 March 2023 and prepared by SMEC Australia Pty Ltd (EPA ref DOC23/204213)
23	Groundwater monitoring (dual purpose bore)	Groundwater monitoring point labelled EPA23 on Premises Map titled Site Map and Monitoring Locations dated 3 March 2023 and prepared by SMEC Australia Pty Ltd (EPA ref DOC23/204213)

Limit Conditions

B1 Pollution of waters

B1.1 Except as may be expressly provided in any other condition of this Notice, the licensee must comply with Section 120 of the *Protection of the Environment Operations Act 1997*.

B2 Potentially offensive odour

B2.1 The licensee must not cause or permit the emission of offensive odour beyond the boundary of the premises.

Operating Conditions

C1 Activities must be carried out in a competent manner

C1.1 Activities must be carried out in a competent manner.

This includes:

a) the processing, handling, movement and storage of materials and substances used to carry out the activity; and



- b) the treatment, storage, processing, reprocessing, transport and disposal of waste generated by the activity.
- C1.2 All operations and activities occurring at the premises must be carried out in a manner that will prevent and minimise fire at the premises.

C2 Maintenance of plant and equipment

- C2.1 All plant and equipment installed at the premises or used in connection with the licensed activity:
 - a) must be maintained in a proper and efficient condition; and
 - b) must be operated in a proper and efficient manner.

C3 Dust

C3.1 All operations and activities occurring at the premises must be carried out in a manner that will minimise the emission of dust from the premises.

Monitoring and Recording Conditions

D1 Monitoring records

- D1.1 The results of any monitoring required to be conducted by this Notice or a load calculation protocol must be recorded and retained as set out in this condition.
- D1.2 All records required to be kept by this Notice must be:
 - a) in a legible form, or in a form that can readily be reduced to a legible form;
 - b) kept for at least 4 years after the monitoring or event to which they relate took place; and
 - c) produced in a legible form to any authorised officer of the EPA who asks to see them.
- D1.3 The following records must be kept in respect to any samples required to be collected for the purposes of this Notice:
 - a) the date(s) the samples were taken;
 - b) the time(s) the samples were taken;
 - c) the point at which the sample was collected; and
 - d) the name of the person who collected the sample

D2 Requirement to Monitor Concentration of Pollutants Discharged

D2.1 For each monitoring/discharge point or utilisation area specified below (by a point number), the licensee must monitor (by sampling and obtaining results of analysis) the concentration of each pollutant specified in column 1. The Licensee must use the sampling methods, units of measure and sample at the frequency specified opposite in the other columns.



Air

POINT 15,16,17,18,19a,20,21,22,23

Pollutant	Unit of measure	Frequency	Sampling method
Methane	percent by volume	Quarterly	Special frequency 1
Carbon dioxide	percent by volume	Quarterly	Special frequency 1

Water and land

POINT 1,2 (surface water)

Pollutant	Unit of measure	Frequency	Sampling method
Aluminium	milligrams per litre	Yearly	Grab sample
Arsenic	milligrams per litre	Yearly	Grab sample
Barium	milligrams per litre	Yearly	Grab sample
Biological oxygen demand	milligrams per litre	Yearly	Grab sample
Cadmium	milligrams per litre	Yearly	Grab sample
Chemical oxygen demand	milligrams per litre	Yearly	Grab sample
Chromium	milligrams per litre	Yearly	Grab sample
Cobalt	milligrams per litre	Yearly	Grab sample
Conductivity	microsiemens per centimetre	Quarterly	Probe
Copper	milligrams per litre	Yearly	Grab sample
Lead	milligrams per litre	Yearly	Grab sample
Manganese	milligrams per litre	Yearly	Grab sample
Mercury	milligrams per litre	Yearly	Grab sample
Nitrate	milligrams per litre	Quarterly	Grab sample
Nitrite	milligrams per litre	Quarterly	Grab sample
Nitrogen (Ammonia)	milligrams per litre	Quarterly	Grab sample
Nitrogen (total)	milligrams per litre	Quarterly	Grab sample
PFAS	micrograms per litre	Quarterly	Grab sample
рН	рН	Quarterly	Probe
Total Dissolved Solids	milligrams per litre	Quarterly	Grab sample



Total Kjeldahl Nitrogen	milligrams per litre	Quarterly	Grab sample
Total Organic Carbon	milligrams per litre	Quarterly	Grab sample
Zinc	milligrams per litre	Yearly	Grab sample

POINT 6 (Surface water - leachate)

Pollutant	Unit of measure	Frequency	Sampling method
Alkalinity (as calcium carbonate)	milligrams per litre	Yearly	Grab sample
Aluminium	milligrams per litre	Yearly	Grab sample
Arsenic	milligrams per litre	Yearly	Grab sample
Barium	milligrams per litre	Yearly	Grab sample
Benzene	milligrams per litre	Yearly	Grab sample
Biological oxygen demand	milligrams per litre	Yearly	Grab sample
Cadmium	milligrams per litre	Yearly	Grab sample
Calcium	milligrams per litre	Yearly	Grab sample
Chemical oxygen demand	milligrams per litre	Yearly	Grab sample
Chloride	milligrams per litre	Yearly	Grab sample
Chromium	milligrams per litre	Yearly	Grab sample
Cobalt	milligrams per litre	Yearly	Grab sample
Conductivity	microsiemens per centimetre	Quarterly	Probe
Copper	milligrams per litre	Yearly	Grab sample
Ethyl benzene	milligrams per litre	Yearly	Grab sample
Flouride	milligrams per litre	Yearly	Grab sample
Lead	milligrams per litre	Yearly	Grab sample
Magnesium	milligrams per litre	Yearly	Grab sample
Manganese	milligrams per litre	Yearly	Grab sample
Mercury	milligrams per litre	Yearly	Grab sample
Nitrate	milligrams per litre	Quarterly	Grab sample
Nitrite	milligrams per litre	Quarterly	Grab sample
Nitrogen (Ammonia)	milligrams per litre	Quarterly	Grab sample
Nitrogen (total)	milligrams per litre	Quarterly	Grab sample
PFAS	micrograms per litre	Quarterly	Grab sample
рН	рН	Quarterly	Probe
Polycyclic Aromatic Hydrocarbons	milligrams per litre	Yearly	Grab sample
Potassium	milligrams per litre	Yearly	Grab sample



Sodium	milligrams per litre	Yearly	Grab sample
Sulphate	milligrams per litre	Yearly	Grab sample
Toluene	milligrams per litre	Yearly	Grab sample
Total Dissolved Solids	milligrams per litre	Quarterly	Grab sample
Total Kjeldahl Nitrogen	milligrams per litre	Quarterly	Grab sample
Total Organic Carbon	milligrams per litre	Quarterly	Grab sample
Total Recoverable Hydrocarbons	milligrams per litre	Yearly	Grab sample
Xylene	milligrams per litre	Yearly	Grab sample
Zinc	milligrams per litre	Yearly	Grab sample

POINT 3a, 4, 5, 13, 14, 17, 20, 23 (Groundwater)

Pollutant	Unit of measure	Frequency	Sampling method
Methane	milligrams per litre	Quarterly	Grab sample
Carbon dioxide	milligrams per litre	Quarterly	Grab sample
Alkalinity (as calcium carbonate)	milligrams per litre	Yearly	Grab sample
Aluminium	milligrams per litre	Yearly	Grab sample
Arsenic	milligrams per litre	Yearly	Grab sample
Barium	milligrams per litre	Yearly	Grab sample
Benzene	milligrams per litre	Yearly	Grab sample
Cadmium	milligrams per litre	Yearly	Grab sample
Calcium	milligrams per litre	Yearly	Grab sample
Chloride	milligrams per litre	Yearly	Grab sample
Chromium	milligrams per litre	Yearly	Grab sample
Cobalt	milligrams per litre	Yearly	Grab sample
Conductivity	microsiemens per centimetre	Quarterly	Probe
Copper	milligrams per litre	Yearly	Grab sample
Ethyl benzene	milligrams per litre	Yearly	Grab sample
Flouride	milligrams per litre	Yearly	Grab sample
Lead	milligrams per litre	Yearly	Grab sample
Magnesium	milligrams per litre	Yearly	Grab sample
Manganese	milligrams per litre	Yearly	Grab sample
Mercury	milligrams per litre	Yearly	Grab sample
Nitrate	milligrams per litre	Quarterly	Grab sample
Nitrite	milligrams per litre	Quarterly	Grab sample
Nitrogen (Ammonia)	milligrams per litre	Quarterly	Grab sample



Nitrogen (total)	milligrams per litre	Quarterly	Grab sample
PFAS	micrograms per litre	Quarterly	Grab sample
рН	рН	Quarterly	Probe
Polycyclic Aromatic Hydrocarbons	milligrams per litre	Yearly	Grab sample
Potassium	milligrams per litre	Yearly	Grab sample
Sodium	milligrams per litre	Yearly	Grab sample
Sulphate	milligrams per litre	Yearly	Grab sample
Toluene	milligrams per litre	Yearly	Grab sample
Total Dissolved Solids	milligrams per litre	Quarterly	Grab sample
Total Kjeldahl Nitrogen	milligrams per litre	Quarterly	Grab sample
Total Organic Carbon	milligrams per litre	Quarterly	Grab sample
Total Recoverable Hydrocarbons	milligrams per litre	Yearly	Grab sample
Xylene	milligrams per litre	Yearly	Grab sample
Zinc	milligrams per litre	Yearly	Grab sample

Note: Special frequency 1 means in accordance with subsurface gas monitoring procedures described in Section 5.3 of EPA Environmental Guidelines: Solid Waste Landfills - Second Edition 2016.

D3 Testing methods - concentration limits

D3.1 Subject to any express provisions to the contrary in this Notice, monitoring for the concentration of a pollutant discharged to waters or applied to a utilisation area must be done in accordance with the Approved Methods Publication unless another method has been approved by the EPA in writing before any tests are conducted.

Reporting Conditions

E1 Notification of environmental harm

- E1.1 The licensee must notify the EPA within 24 hours by telephoning Environment Line on 131 555 if subsurface gas monitoring required by this Notice detects methane of 1% (volume/volume) or greater.
- E1.2 The licensee or its employees must notify all relevant authorities of incidents causing or threatening material harm to the environment immediately after the person becomes aware of the incident in accordance with the requirements of Part 5.7 of the Act.

Note: Notifications must be made by telephoning Environment Line on 131 555.

E2 Annual Report



- E2.1 The licensee must report the results and analytical data of monitoring required by this Notice. This report should include:
 - a) tabulated results of all monitoring data required to be collected by this Notice;
 - b) a graphical presentation of data from at least the last three years (if available) in order to show variability and/or trends. Any statistically significant variations or anomalies should be highlighted and explained;
 - c) an analysis and interpretation of all monitoring data;
 - d) an analysis of and response to any complaints received;
 - e) identification of any deficiencies in environmental performance identified by the monitoring data, trends or incidents and of remedial action taken or proposed to be taken to address these deficiencies; and
 - f) recommendations on improving the environmental performance of the facility.
- E2.2 The Annual Report must be submitted annually by 17 January.



Lara Barrington
Unit Head Regulatory Operations
Environment Protection Authority

(by Delegation)

INFORMATION ABOUT THIS NOTICE

This notice is issued under section 81(3) of the Act.

Appeals against this decision

 You can appeal to the Land and Environment Court against this decision. The deadline for lodging the appeal is 21 days after you were given notice of this decision.

When this notice begins to operate



- The variations to the Approval of the Surrender of licence specified in this notice begin to operate immediately from the date of this notice, unless another date is specified in this notice.
- If an appeal is made against this decision to vary a condition of Approval of Surrender of licence and the Land and Environment Court directs that the decision is stayed the decision does not operate until the stay ceases to have effect or the Land and Environment Court confirms the decision or the appeal is withdrawn (whichever occurs first).