



## ENVIRONMENTAL MANAGEMENT RECORD

Subject: Reporting of Emissions to Air for 12 Months to 31<sup>st</sup> December 2016

Doc Id: WX-EMS-0014-EMR  
Revision: 1  
Date: JUNE 2008

**PERMIT REFERENCE NUMBER:** BV 8016 ID, KP 3135 LW  
& EPR BV 8016 ID

**OPERATOR:** Kellogg Company of Great Britain Ltd

**INSTALLATION:** Wrexham Breakfast Cereals

**FORM NUMBER:** A1

### OXIDES OF NITROGEN

| Emission Point | Date of Sampling (1) | Result of Sampling (1) (mg/m <sup>3</sup> ) | Date of sampling (2) | Result of sampling (2) (mg/m <sup>3</sup> ) |
|----------------|----------------------|---------------------------------------------|----------------------|---------------------------------------------|
| A1             | 27/02/16             | 91                                          | 06/08/16             | 75                                          |
| A2             | 27/02/16             | 103                                         | 31/05/16             | 106                                         |
| A3             | Boiler Off Line      |                                             | Boiler Off Line      |                                             |
| A4             | 27/02/16             | 91                                          | 26/07/16             | 49                                          |

### OXIDES OF SULPHUR

| Emission Point | Date of Sampling (1) | Result of Sampling (1) (mg/m <sup>3</sup> ) | Date of sampling (2) | Result of sampling (2) (mg/m <sup>3</sup> ) |
|----------------|----------------------|---------------------------------------------|----------------------|---------------------------------------------|
| A18            | 28/01/16             | 0                                           | 20/07/16             | 23                                          |
| A19            | 28/01/16             | 0                                           | 20/07/16             | 9                                           |
| A20            | 28/01/16             | 0                                           | 20/07/16             | 3                                           |
| A21            | 28/01/16             | 0                                           | 20/07/16             | 11                                          |
| A22            | 28/01/16             | 0                                           | 20/07/16             | 120                                         |

Signed: OC Edwards

Print Name: DAVID EDWARDS

(Authorised to sign as representative of the Operator)

Date: 12/01/2017



## ENVIRONMENTAL MANAGEMENT RECORD

Subject: Reporting of Waste Disposal and Recovery for the Year

Doc Id: WX-EMS-0018-EMR  
Revision: 1  
Date: JUNE 2008

**PERMIT REFERENCE NUMBER:** BV 8016 ID, KP 3135 LW  
& EPR BV 8016 ID

**OPERATOR:** Kellogg Company of Great Britain Ltd

**INSTALLATION:** Wrexham Breakfast Cereals

**FORM NUMBER:** R1

**REPORTING PERIOD:** 1<sup>st</sup> January – 31<sup>st</sup> December 2016

| WASTE DESCRIPTION                              | DISPOSAL |        | RECOVERY |
|------------------------------------------------|----------|--------|----------|
|                                                | ROUTE    | TONNES | TONNES   |
| Hazardous Waste                                |          |        | 146      |
| Non Hazardous Waste<br>(Non biodegradable)     |          |        | 461      |
| Non Hazardous Waste<br>(Biodegradable)         |          |        | 955      |
| Food waste sent for animal<br>feed manufacture |          |        | 6017     |
| <b>Total Waste</b>                             |          |        | 7579     |

| YEAR | TRENDS IN WASTE DISPOSAL AND RECOVERY |                         |                                            |
|------|---------------------------------------|-------------------------|--------------------------------------------|
|      | PARAMETER                             |                         | WASTE PER UNIT<br>OUTPUT<br>(Tonnes/Tonne) |
|      | TOTAL<br>PRODUCTION<br>(Tonnes)       | TOTAL WASTE<br>(Tonnes) |                                            |
| 2013 | 72462                                 | 9878                    | 0.136                                      |
| 2014 | 69746                                 | 8646                    | 0.124                                      |
| 2015 | 67319                                 | 8329                    | 0.124                                      |
| 2016 | 56610                                 | 7579                    | 0.134                                      |

Operators comments:

Waste has increased from previous years due to asset rationalisation projects.

Signed: \_\_\_\_\_

Print Name: \_\_\_\_\_

(Authorised to sign as representative of the Operator)

Date: \_\_\_\_\_



## ENVIRONMENTAL MANAGEMENT RECORD

Subject: Reporting of Performance Indicators for the Year 2016

Doc Id: WX-EMS-0017-EMR  
Revision: 1  
Date: JUNE 2008

**PERMIT REFERENCE NUMBER:** BV 8016 ID, KP 3135 LW  
& EPR BV 8016 ID

**OPERATOR:** Kellogg Company of Great Britain Ltd

**INSTALLATION:** Wrexham Breakfast Cereals

**FORM NUMBER:** P11

### ANNUAL PRODUCTION/TREATMENT

Total site production:

56610 tonnes

### ENVIRONMENTAL PERFORMANCE INDICATORS (EPI'S)

| PARAMETER                                              |            |                     |
|--------------------------------------------------------|------------|---------------------|
| Releases to Sewer:                                     | ANNUAL EPI | UNITS               |
| Total Chemical Oxygen Demand release per tonne product | 0.00010    | Tonne/Tonne Product |
| Total Suspended Solids release per tonne product       | 0.00003    | Tonne/Tonne Product |
| Specific energy consumption per tonne product          | 1.47       | Tonne/Tonne Product |
| Refrigerant use                                        | 85.7       | Kg/Year             |

### TRENDS IN ENVIRONMENTAL PERFORMANCE

| Year | Parameter                     |                              |
|------|-------------------------------|------------------------------|
|      | COD release per tonne product | Energy use per tonne product |
| 2012 | 0.0008                        | 1.85                         |
| 2013 | 0.0004                        | 2.04                         |
| 2014 | 0.00016                       | 1.77                         |
| 2015 | 0.00010                       | 1.68                         |
| 2016 | 0.00010                       | 1.47                         |

Signed: \_\_\_\_\_

Print Name: \_\_\_\_\_

DARREN EDWARDS

(Authorised to sign as representative of the Operator)

Date: \_\_\_\_\_

12/01/2017



## ENVIRONMENTAL MANAGEMENT RECORD

Subject: Reporting of Energy

Doc Id: WX-EMS-0019-EMR  
Revision: 1  
Date: JUNE 2008

PERMIT REFERENCE NUMBER: BV 8016 ID, KP 3135 LW  
& EPR BV 8016 ID

OPERATOR: Kellogg Company of Great Britain Ltd

INSTALLATION: Wrexham Breakfast Cereals FORM NUMBER: E1

REPORTING PERIOD: 1<sup>st</sup> January – 31<sup>st</sup> December 2016

| ENERGY SOURCE     | ENERGY USAGE |                      | CO <sub>2</sub> PRODUCED (Tonnes) |
|-------------------|--------------|----------------------|-----------------------------------|
|                   | QUANTITY     | PRIMARY ENERGY (MWh) |                                   |
| ELECTRICITY (MWh) | 28595        | 74632                | 12389                             |
| GAS (MWh)         | 73865        | 73865                | 15216                             |
| GAS OIL (MWh)     | 0            | 0                    | 0                                 |
| TOTAL             | 102460       | 148497               | 27605                             |

| TRENDS IN ENERGY USAGE |                            |                                   |                                                 |
|------------------------|----------------------------|-----------------------------------|-------------------------------------------------|
| YEAR                   | PRIMARY ENERGY USAGE (MWh) | CO <sub>2</sub> PRODUCED (Tonnes) | CO <sub>2</sub> PER UNIT OUTPUT (Tonnes/Tonnes) |
| 2013                   | 222164                     | 40924                             | 0.564                                           |
| 2014                   | 178848                     | 33241                             | 0.477                                           |
| 2015                   | 168831                     | 31425                             | 0.466                                           |
| 2016                   | 102460                     | 27605                             | 0.488                                           |

\*Conversion factor delivered electricity to primary energy = 2.61

Operators Comments:

Signed:

Print Name:

DAREAN EDWARDS

(Authorised to sign as representative of the Operator)

Date:

12/01/2017



## ENVIRONMENTAL MANAGEMENT RECORD

Subject: Reporting of Water Usage

Doc Id: WX-EMS-0020-EMR  
Revision: 1  
Date: JUNE 2008

**PERMIT REFERENCE NUMBER:** BV 8016 ID, KP 3135 LV  
& EPR BV 8016 ID

**OPERATOR:** Kellogg Company of Great Britain Ltd

**INSTALLATION:** Wrexham Breakfast Cereals **FORM NUMBER:** WU1

**REPORTING PERIOD:** 1<sup>st</sup> January – 31<sup>st</sup> December 2016

| WATER SOURCE             | USAGE (M <sup>3</sup> ) | SPECIFIC USAGE<br>(M <sup>3</sup> /Tonne) |
|--------------------------|-------------------------|-------------------------------------------|
| Mains water<br>(Potable) | 216203                  | 0.3                                       |
| Non potable<br>water     | 333329                  | 3.0                                       |
| Total Water<br>Usage     | 249532                  | 3.3                                       |

| TRENDS IN WATER USAGE |                                     |                                                  |
|-----------------------|-------------------------------------|--------------------------------------------------|
| YEAR                  | PARAMETER                           |                                                  |
|                       | Total Water Usage (M <sup>3</sup> ) | Water per unit output<br>(M <sup>3</sup> /Tonne) |
| 2013                  | 375659                              | 5.2                                              |
| 2014                  | 322852                              | 4.6                                              |
| 2015                  | 224962                              | 3.3                                              |
| 2016                  | 249532                              | 4.4                                              |

Operators Comments:

Increase in water due to food safety projects

Signed: *DC Edwards*

Print Name: DAREAN EDWARDS

(Authorised to sign as representative of the Operator)

Date: 12/01/2017



## ENVIRONMENTAL MANAGEMENT RECORD

Subject: Reporting of Emissions to Sewer for 3 Months

Doc Id: WX-EMS-0016-EMR  
Revision: 1  
Date: JUNE 2008

**PERMIT REFERENCE NUMBER:** BV 8016 ID, KP 3135 LV  
& EPR BV 8016 ID

**OPERATOR:** Kellogg Company of Great Britain Ltd

**INSTALLATION:** Wrexham Breakfast Cereals    **FORM NUMBER:** S2    **REPORTING PERIOD:** 1<sup>st</sup> January – 31<sup>st</sup> December 2016

| Emission Point | Substance/Parameter           | Maximum |      | Minimum |      | Average | Number of Results |
|----------------|-------------------------------|---------|------|---------|------|---------|-------------------|
|                |                               | Value   | Date | Value   | Date |         |                   |
| S1             | Chemical Oxygen Demand (mg/l) |         |      |         |      |         |                   |
| S1             | Suspended Solids (mg/l)       |         |      |         |      |         |                   |
| S1             | Flow (m <sup>3</sup> /day)    |         |      |         |      |         |                   |

### REPORTING OF EMISSIONS TO SEWER FOR 12 MONTHS TO 31<sup>ST</sup> DECEMBER 2016

| Emission Point | Substance/Parameter    | Tonnes/Year |
|----------------|------------------------|-------------|
| S1             | Chemical Oxygen Demand | 5.5         |
| S1             | Suspended Solids       | 1.7         |

Signed: 

Print Name: DARRAN EDWARDS

(Authorised to sign as representative of the Operator)

Date: 12/01/2017