

Facility Information Summary	
AER Reporting Year	2016
Licence Register Number	P0395-03
Name of site	Wyeth Nutritionals Ireland Limited
Site Location	Askeaton, Co. Limerick
NACE Code	1086
Class/Classes of Activity	7.2.1 and 2.1
National Grid Reference (6E, 6 N)	-8.98170 52.6091
<p>A description of the activities/processes at the site for the reporting year. This should include information such as production increases or decreases on site, any infrastructural changes, environmental performance which was measured during the reporting year and an overview of compliance with your licence listing all exceedances of licence limits (where applicable) and what they relate to e.g. air, water, noise.</p> <p>Wyeth Nutritionals Ireland Limited is one of Europe's leading producers of infant and child nutritional products. Established in 1974, this world-class facility is one of the largest purpose-built infant nutritional production facilities in the world. The factory produces both powdered formulas and a liquid ready-to-feed range of products.</p> <p>Output from the factory in 2016 was slightly more (+4%) than production output for 2015. One of the filling & packaging lines was decommissioned and demolished. This was replaced with a new packaging & filling line. A number of specialised air conditioning units were also installed for filling rooms. There was one exceedance of licence limits during the reporting period (in November) and this was in relation to emissions to air.</p> <p>In line with the site's environmental policy a number of initiatives were implemented as part of the 2016 environmental management programme in the areas of water use, waste management and energy use that helped improve the overall environmental performance of the site.</p> <p>A summary of proposed amendments to the site's Decommissioning Management Plan arising from a review of the plan is attached (as per Condition 10.2.2 of the IE Licence) Agreement is sought from the Agency to proceed with implementation of these amendments.</p>	

Declaration:

All the data and information presented in this report has been checked and certified as being accurate. The quality of the information is assured to meet licence requirements.

	
Signature	Date
Group/Facility manager	
(or nominated, suitably qualified and experienced deputy)	

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1.5

Additional information

- 1 Does your site have licensed air emissions? If yes please complete table A1 and A2 below for the current reporting year and answer further questions. If **you do not have** licenced emissions and **do not complete a solvent management plan** (table A4 and A5) you do not need to complete the tables

Yes	
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Periodic/Non-Continuous Monitoring

- 2 Are there any results in breach of licence requirements? If yes please provide brief details in the comment section of TableA1 below
- 3 Was all monitoring carried out in accordance with EPA guidance [Basic air monitoring checklist](#) note AG2 and using the basic air monitoring checklist? [AGN2](#)

Yes	
Yes	

Table A1: Licensed Mass Emissions/Ambient data-periodic monitoring (non-continuous)

Emission reference no:	Parameter/ Substance	Frequency of Monitoring	ELV in licence or any revision thereof	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence limit	Method of analysis	Annual mass load (kg)	Comments -reason for change in % mass load from previous year if applicable
A1-1	Nitrogen oxides (NOx/NO2)	Biannually	300	100 % of values < ELV	Min 168.6 Max 208.8	mg/Nm3	yes	EN 14792:2005		
A1-1	Carbon monoxide (CO)	Biannually			67.8	mg/Nm3	N/A	EN 15058:2004		
A1-1	volumetric flow	Biannually				Nm3/hour	N/A	OTH		Design flow used
A1-2	Nitrogen oxides (NOx/NO2)	Biannually	200	100 % of values < ELV	Min 96.3 Max 104.1	mg/Nm3	yes	EN 14792:2005		
A1-2	Carbon monoxide (CO)	Biannually	100	100 % of values < ELV	Min 1.7 Max 4.6	mg/Nm3	yes	EN 15058:2004		
A1-2	volumetric flow	Biannually	-		Min 4400 Max 9672	Nm3/hour	N/A	EN 16911:2013		
A1-4	Nitrogen oxides (NOx/NO2)	Biannually	200		100.4	mg/Nm3	yes	EN 14792:2005		
A1-4	Carbon monoxide (CO)	Biannually	100		4.8	mg/Nm3	yes	EN 15058:2004		
A1-4	volumetric flow	Biannually			4611	Nm3/hour	N/A	EN 16911:2013		
A2-1	Total Particulates	Quarterly	50	100 % of values < ELV	Min 26.2 Max 33.9	mg/Nm3	yes	EN 13284-1:2002		
A2-1	volumetric flow	Quarterly			Min 36193 Max 39637	Nm3/hour	N/A	EN 16911:2013		
A2-3	Total Particulates	Quarterly	50	100 % of values < ELV	Min 10.8 Max 46.4	mg/Nm3	yes	EN 13284-1:2002		
A2-3	volumetric flow	Quarterly			Min 59622 Max 77686	Nm3/hour	N/A	EN 16911:2013		
A2-4	Total Particulates	Quarterly	50	100 % of values < ELV	Min 16.4 Max 29.8	mg/Nm3	yes	EN 13284-1:2002		

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A2-4	volumetric flow	Quarterly		Min 73399 Max 101548	Nm3/hour	N/A	EN 16911:2013		
A2-6	Total Particulates	Quarterly	50	100 % of values < ELV	mg/Nm3	No	EN 13284-1:2002		Exceedence of ELV detected during monitoring carried out in November of the reporting period.
A2-6	volumetric flow	Quarterly		Min 94796 Max 103299	Nm3/hour	N/A	EN 16911:2013		
	Total Particulates							38062	+36% due to increased production output and increased airflows.
	Nitrogen oxides (NOx/NO2)							42206	
	Carbon monoxide (CO)							14930	+146% compared to 2015 mass emissions, however, lower than 2014 and 2013 mass emissions.

Note 1: Volumetric flow shall be included as a reportable parameter

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Continuous Monitoring		

4 Does your site carry out continuous air emissions monitoring?
 If yes please review your continuous monitoring data and report the required fields below in Table A2 and compare it to its relevant Emission Limit Value (ELV)

5 Did continuous monitoring equipment experience downtime? If yes please record downtime in table A2 below

6 Do you have a proactive service agreement for each piece of continuous monitoring equipment?

7 Did your site experience any abatement system bypasses? If yes please detail them in table A3 below

Table A2: Summary of average emissions -continuous monitoring

Emission reference no:	Parameter/ Substance	ELV in licence or any revision thereof	Averaging Period	Compliance Criteria	Units of measurement	Annual Emission	Annual maximum	Monitoring Equipment downtime (hours)	Number of ELV exceedences in current reporting year	Comments
	SELECT			SELECT	SELECT					
	SELECT				SELECT					
	SELECT				SELECT					
	SELECT				SELECT					
	SELECT				SELECT					

note 1: Volumetric flow shall be included as a reportable parameter.

Table A3: Abatement system bypass reporting table

[Bypass protocol](#)

Date*	Duration** (hours)	Location	Reason for bypass	Impact magnitude	Corrective action

* this should include all dates that an abatement system bypass occurred

** an accurate record of time bypass beginning and end should be logged on site and maintained for future Agency inspections please refer to bypass protocol link

AIR-summary template	Lic No: P0395-03	Year: 2016
Solvent use and management on site		
8 Do you have a total Emission Limit Value of direct and fugitive emissions on site? If yes please fill out tables A4 and A5		<input type="button" value="SELECT"/>
Table A4: Solvent Management Plan Summary Total VOC Emission limit value		Please refer to linked solvent regulations to complete table 5 and 6 Solvent regulations
Reporting year	Total solvent input on site (kg)	Total VOC emissions to Air from entire site (direct and fugitive)
		Total VOC emissions as %of solvent input
		Total Emission Limit Value (ELV) in licence or any revision thereof
		Compliance
		SELECT
		SELECT
Table A5: Solvent Mass Balance summary		
	(I) Inputs (kg)	(O) Outputs (kg)
Solvent	(I) Inputs (kg)	Organic solvent emission in waste
		Solvents lost in water (kg)
		Collected waste solvent (kg)
		Fugitive Organic Solvent (kg)
		Solvent released in other ways e.g.
		Solvents destroyed onsite through
		Total emission of Solvent to air (kg)
		Total

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER)	Lic No: P0395-03	Year: 2016	Additional information
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1 Does your site have licensed emissions direct to surface water or direct to sewer? If yes please complete table W2 and W3 below for the current reporting year and answer further questions. If you **do not have** licensed emissions you only need to complete table W1 and or W2 for storm water analysis and visual inspections

2 Was it a requirement of your licence to carry out visual inspections on any surface water discharges or watercourses on or near your site? If yes please complete table W2 below summarising only any evidence of contamination noted during visual inspections

		Additional information
Yes		
Yes		

Table W1 Storm water monitoring

Location reference	Location relative to site activities	PRTR Parameter	Licensed Parameter	Monitoring date	ELV or trigger level in licence or any revision thereof*	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence	Comments
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT	
	SELECT	SELECT	SELECT			SELECT		SELECT	SELECT	

*trigger values may be agreed by the Agency outside of licence conditions

Table W2 Visual inspections-Please only enter details where contamination was observed.

Location Reference	Date of inspection	Description of contamination	Source of contamination	Corrective action	Comments
			SELECT		
			SELECT		

Licensed Emissions to water and /or wastewater(sewer)-periodic monitoring (non-continuous)

3 Was there any result in breach of licence requirements? If yes please provide brief details in the comment section of Table W3 below

4 Was all monitoring carried out in accordance with EPA guidance and checklists for Quality of Aqueous Monitoring Data Reported to the EPA? If no please detail what areas require improvement in additional information box

	No	Additional information
	Yes	

Table W3: Licensed Emissions to water and /or wastewater (sewer)-periodic monitoring (non-continuous)

Emission reference no:	Emission released to	Parameter/ Substance ^{Note 1}	Type of sample	Frequency of monitoring	Averaging period	ELV or trigger values in licence or any revision thereof ^{Note 2}	Licence Compliance criteria	Measured value	Unit of measurement	Compliant with licence	Method of analysis	Procedural reference source	Procedural reference standard number	Annual mass load (kg)	Comments
SW1	Water	Toxicity	composite	Annual	24 hour	5	All results < 1.2 x ELV	<1	TU	yes	Toxicity Analysis	ISO	11348-3:2007		

Note 1: Volumetric flow shall be included as a reportable parameter

Note 2: Where Emission Limit Values (ELV) do not apply to your licence please compare results against EQS for Surface water or relevant receptor quality standards

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER) Lic No: P0395-03 Year 2016

Continuous monitoring

5 Does your site carry out continuous emissions to water/sewer monitoring?

Yes

If yes please summarise your continuous monitoring data below in Table W4 and compare it to its relevant Emission Limit Value (ELV)

6 Did continuous monitoring equipment experience downtime? If yes please record downtime in table W4 below

No

7 Do you have a proactive service contract for each piece of continuous monitoring equipment on site?

No

8 Did abatement system bypass occur during the reporting year? If yes please complete table W5 below

No

Table W4: Summary of average emissions -continuous monitoring

Emission reference no:	Emission released to	Parameter/ Substance	ELV or trigger values in licence or any revision thereof	Averaging Period	Compliance Criteria	Units of measurement	Annual Emission for current reporting year (kg)	% change +/- from previous reporting year	Monitoring Equipment downtime (hours)	Number of ELV exceedences in reporting year	Comments
SW1	Water	volumetric flow	2800	24 hour	No flow value shall exceed the .specific limit	m3/day			0	0	
SW1	Water	pH	6 - 9	24 hour	No pH value shall deviate from the .specified range	pH units			0	0	
SW1	Water	BOD	40	24 hour	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	mg/L	6983	+7	0	0	
SW1	Water	Suspended Solids	50	24 hour	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	mg/L	10465	+26	0	0	Similar variation but opposite to last year
SW1	Water	Total nitrogen	15	24 hour	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	mg/L	1286	-30	0	0	
SW1	Water	Ammonia (as N)	10	24 hour	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	mg/L	572	-22	0	0	
SW1	Water	Total phosphorus	1.5	24 hour	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	mg/L	123	+11	0	0	Reported TP annual emission for 2015 was an error. Actual annual emission was 111kg and not 26 kg as reported in the 2015 AER
SW1	Water	Ortho-phosphate (as PO4)	0.75	24 hour	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	mg/L	26	+37	0	0	Similar variation but opposite to last year
SW1	Water	Fats, Oils and Greases	15	24 hour	All results < 1.2 times ELV, plus 8 from ten results must be < ELV	mg/L	2320	+7	0	0	
SW1	Water	COD	-	24 hour		mg/L	18138	+2	0	0	

note 1: Volumetric flow shall be included as a reportable parameter.

Table W5: Abatement system bypass reporting table

Date	Duration (hours)	Location	Resultant emissions	Reason for bypass	Corrective action*	Was a report submitted to the EPA?	When was this report submitted?
						SELECT	

AER Monitoring returns summary template-WATER/WASTEWATER(SEWER) Lic No: P0395-03 Year 2016

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*Measures taken or proposed to reduce or limit bypass frequency

Bund testing dropdown menu click to see options

Are you required by your licence to undertake integrity testing on bunds and containment structures? If yes please fill out table B1 below listing all **new bunds and containment structures** on site, in addition to **all bunds which failed the integrity test- all bunding structures which failed including mobile bunds must be listed in the table below, please include all bunds outside the licenced testing period** (mobile bunds and chemstore included)

- 1 Please provide integrity testing frequency period
Does the site maintain a register of bunds, underground pipelines (including stormwater and foul), Tanks, sumps and containers? (containers refers to "Chemstore" type units and mobile bunds)
- 2 How many bunds are on site?
- 3 How many of these bunds have been tested within the required test schedule?
- 4 How many mobile bunds are on site?
- 5 Are the mobile bunds included in the bund test schedule?
- 6 How many of these mobile bunds have been tested within the required test schedule?
- 7 How many sumps on site are included in the integrity test schedule?
- 8 How many of these sumps are integrity tested within the test schedule?
Please list any sump integrity failures in table B1
- 9 Do all sumps and chambers have high level liquid alarms?
- 10 If yes to Q11 are these failsafe systems included in a maintenance and testing programme?
- 11 Is the Fire Water Retention Pond included in your integrity test programme?

Additional information	
Yes	
3 years	
Yes	
27	
27	
0	
Yes	
0	
9	
9	
Yes	
Yes	
N/A	

Bund/Containment structure ID	Type	Specify Other type	Product containment	Actual capacity	Capacity required*	Type of integrity test	Other test type	Test date	Integrity reports maintained on site?	Results of test	Integrity test failure explanation <50 words	Corrective action taken	Scheduled date for retest	Results of retest(if in current reporting year)
B24	prefabricated	Polypropylene	Various WT Chemicals	1170 litres	125 litres	Hydraulic test		01/09/2015	Yes	Pass		SELECT		
	SELECT					SELECT			SELECT	SELECT		SELECT		

* Capacity required should comply with 25% or 100% containment rate as detailed in your licence

Has integrity testing been carried out in accordance with licence requirements and are all structures tested in line with BS8007/EPA Guidance?

15 Are channels/transfer systems to remote containment systems tested?

16 Are channels/transfer systems compliant in both integrity and available volume?

Commentary	
No	
Yes	
Yes	

Pipeline/underground structure testing

Are you required by your licence to undertake integrity testing* on underground structures e.g. pipelines or sumps etc? If yes please fill out table 2 below listing all underground structures and pipelines on site **which failed the integrity test and all which have not been tested within the integrity test period as specified**

- 1 Please provide integrity testing frequency period
- *please note integrity testing means water tightness testing for process and foul pipelines (as required under your licence)

Additional information	
Yes	
3 years	

Structure ID	Type system	Material of construction:	Does this structure have Secondary containment?	Type of secondary containment	Type integrity testing	Integrity reports maintained on site?	Results of test	Integrity test failure explanation <50 words	Corrective action taken	Scheduled date for retest	Results of retest(if in current reporting year)
S10	Foul	concrete	No	SELECT	Hydraulic	SELECT	Fail	Small hairline crack in concrete detected	None	End of March 2017	SELECT
F5E	Process	steel	No		Hydraulic	Yes	Overdue				
F5F	Process	steel	No		Hydraulic	Yes	Overdue				
F5G	Process	steel	No		Hydraulic	Yes	Overdue				
F13	Foul	concrete	No		Hydraulic	Yes	Overdue				
F14	Foul	concrete	No		Hydraulic	Yes	Overdue				
F17	Foul	concrete	No		Hydraulic	Yes	Overdue				
F17A	Foul	steel	No		Hydraulic	Yes	Overdue				
F19	Process	concrete	No		Hydraulic	Yes	Overdue				
F22	Foul	concrete	No		Hydraulic	Yes	Overdue				
F23	Foul	concrete	No		Hydraulic	Yes	Overdue				
F24	Foul	concrete	No		Hydraulic	Yes	Overdue				
F27	Foul	concrete	No		Hydraulic	Yes	Overdue				
F28	Foul	concrete	No		Hydraulic	Yes	Overdue				
F29	Foul	concrete	No		Hydraulic	Yes	Overdue				
F30	Foul	concrete	No		Hydraulic	Yes	Overdue				
F31	Foul	concrete	No		Hydraulic	Yes	Overdue				
F33	Foul	concrete	No		Hydraulic	Yes	Overdue				
F34	Foul	concrete	No		Hydraulic	Yes	Overdue				
F35A	Process	steel	No		Hydraulic	Yes	Overdue				
F35B	Process	steel	No		Hydraulic	Yes	Overdue				
F35C	Process	steel	No		Hydraulic	Yes	Overdue				
F35D	Process	steel	No		Hydraulic	Yes	Overdue				
F35E	Process	steel	No		Hydraulic	Yes	Overdue				
F36A	Process	steel	No		Hydraulic	Yes	Overdue				
F37	Process	concrete	No		Hydraulic	Yes	Overdue				
F37A	Process	steel	No		Hydraulic	Yes	Overdue				
F38	Process	steel	No		Hydraulic	Yes	Overdue				
F42A	Process	concrete	No		Hydraulic	Yes	Fail	Concrete benching deteriorating, above the water channel	None	During production shutdown in July 2017	
F44	Process	steel	No		Hydraulic	Yes	Overdue				
F44A	Process	steel	No		Hydraulic	Yes	Overdue				
F45	Process	steel	No		Hydraulic	Yes	Overdue				
F45A	Process	steel	No		Hydraulic	Yes	Overdue				
F45B	Process	steel	No		Hydraulic	Yes	Overdue				
F45C	Process	steel	No		Hydraulic	Yes	Overdue				
F45D	Process	steel	No		Hydraulic	Yes	Overdue				

Bund/Pipeline testing template				Lic No:	P0395-03	Year	2016
F45E	Process	steel	No		Hydraulic	Yes	Overdue
F45F	Process	steel	No		Hydraulic	Yes	Overdue
F46	Process	concrete	No		Hydraulic	Yes	Overdue
F48	Process	steel	No		Hydraulic	Yes	Overdue
F49	Process	Concrete lined	No		Hydraulic	Yes	Overdue
F50	Process	Concrete lined	No		Hydraulic	Yes	Overdue
F51	Process	steel	No		Hydraulic	Yes	Overdue
F57	Process	concrete	No		Hydraulic	Yes	Overdue
F202	Process	concrete	No		Hydraulic	Yes	Overdue
F203	Process	concrete	No		Hydraulic	Yes	Overdue
F204	Process	concrete	No		Hydraulic	Yes	Overdue
F205	Process	steel	No		Hydraulic	Yes	Overdue
F206	Process	steel	No		Hydraulic	Yes	Overdue
Gully to F5E	Process	steel	No		Hydraulic	Yes	Overdue
F5E to F5	Process	Ceramic lined with Lv	No		Hydraulic	Yes	Overdue
F5E to F5f	Process	steel	No		Hydraulic	Yes	Overdue
F5f to S6	Process	steel	No		Hydraulic	Yes	Overdue
2 floor gullies to F5G	Process	steel	No		Hydraulic	Yes	Overdue
6 floor gullies to F7D	Process	steel	No		Hydraulic	Yes	Overdue
F13 to F11B	Process	steel	No		Hydraulic	Yes	Overdue
3 CDF in NPPD Room	Process	steel	No		Hydraulic	Yes	Overdue
F13 to F14	Process	Ceramic lined	No		Hydraulic	Yes	Overdue
F14 to F213	Process	Ceramic lined	No		Hydraulic	Yes	Overdue
F213 to F15	Process	Ceramic lined	No		Hydraulic	Yes	Overdue
F15 to F16	Process	Ceramic lined	No		Hydraulic	Yes	Overdue
F16 to F17	Process	Ceramic lined	No		Hydraulic	Yes	Overdue
F17 to F17A	Process	Ceramic lined	No		Hydraulic	Yes	Overdue
CD to 17A	Process	steel	No		Hydraulic	Yes	Overdue
CD to 17A	Process	steel	No		Hydraulic	Yes	Overdue
F17A to F18	Process	Ceramic lined	No		Hydraulic	Yes	Overdue
F21 to F102	Process	steel	No		Hydraulic	Yes	Overdue
F22 to F23	Process	ceramic	No		Hydraulic	Yes	Overdue
F23 to F24	Process	ceramic	No		Hydraulic	Yes	Overdue
F24 to F25	Process	Ceramic lined	No		Hydraulic	Yes	Overdue
F27 to F28	Process	Ceramic lined	No		Hydraulic	Yes	Overdue
F28 to F29 to F30	Process	ceramic	No		Hydraulic	Yes	Overdue
F31 to F33	Process	ceramic	No		Hydraulic	Yes	Overdue
F33 to F34	Process	ceramic	No		Hydraulic	Yes	Overdue
F34 to F30	Process	ceramic	No		Hydraulic	Yes	Overdue
5 Gullies F35A to F36A	Process	steel	No		Hydraulic	Yes	Overdue
F36A to F226	Process	Ceramic lined	No		Hydraulic	Yes	Overdue
Eff Sump to F36A	Process	steel	No		Hydraulic	Yes	Overdue
F226 to F38	Process	steel	No		Hydraulic	Yes	Overdue
F37 to F38	Process	Ceramic lined	No		Hydraulic	Yes	Overdue
F37a to F38	Process	Ceramic lined	No		Hydraulic	Yes	Overdue
F38 to F41	Process	steel	No		Hydraulic	Yes	Overdue
F44 to F44A	Process	steel	No		Hydraulic	Yes	Overdue
F44 to F44B	Process	steel and pvc	No		Hydraulic	Yes	Overdue
CD to F44	Process	steel	No		Hydraulic	Yes	Overdue
CD to F44A	Process	steel	No		Hydraulic	Yes	Overdue
F44A to F17A	Process	steel	No		Hydraulic	Yes	Overdue
F45 to F45A	Process	steel	No		Hydraulic	Yes	Overdue
F45A to F45C	Process	steel	No		Hydraulic	Yes	Overdue
F45B to F45C	Process	steel	No		Hydraulic	Yes	Overdue
F45B to F45E	Process	steel	No		Hydraulic	Yes	Overdue
F45 to F48	Process	steel	No		Hydraulic	Yes	Overdue
F46 to F47	Process	ceramic	No		Hydraulic	Yes	Overdue
F47 to F48	Process	ceramic	No		Hydraulic	Yes	Overdue
F48 to F19	Process	steel	No		Hydraulic	Yes	Overdue
F49 to F50	Process	Ceramic lined	No		Hydraulic	Yes	Overdue
F50 to F51	Process	Ceramic lined	No		Hydraulic	Yes	Overdue
F51 to F20	Process	Ceramic lined	No		Hydraulic	Yes	Overdue
F57 to Eff Sump	Process	ceramic	No		Hydraulic	Yes	Overdue
F205 to F203	Process	steel	No		Hydraulic	Yes	Overdue
F203 to F204	Process	steel	No		Hydraulic	Yes	Overdue
F204 to F207	Process	steel	No		Hydraulic	Yes	Overdue
F207 to F208	Process	steel	No		Hydraulic	Yes	Overdue
F203 to F202	Process	ceramic	No		Hydraulic	Yes	Overdue
F219 to F208	Process	ceramic	No		Hydraulic	Yes	Overdue
F208 to F222	Process	pvc	No		Hydraulic	Yes	Overdue
A1253 to A1 254	Process	pvc	No		Hydraulic	Yes	Overdue
A1254 to A1255	Process	pvc	No		Hydraulic	Yes	Overdue
A1255 to F256	Process	pvc	No		Hydraulic	Yes	Overdue
F256 to F257	Process	pvc	No		Hydraulic	Yes	Overdue
F258 to F57	Process	pvc	No		Hydraulic	Yes	Overdue

Please use commentary for additional details not answered by tables/ questions above

Groundwater/Soil monitoring template		Lic No:	P0395-03	Year	2016
					Comments
1	Are you required to carry out groundwater monitoring as part of your licence requirements?	yes			Please provide an interpretation of groundwater monitoring data in the interpretation box below or if you require additional space please include a groundwater/contaminated land monitoring results interpretation as an additional section in this AER
2	Are you required to carry out soil monitoring as part of your licence requirements?	no			
3	Do you extract groundwater for use on site? If yes please specify use in comment section	no			
4	Do monitoring results show that groundwater generic assessment criteria such as GTVs or IGVs are exceeded or is there an upward trend in results for a substance? If yes, please complete the Groundwater Monitoring Guideline Template Report (link in cell G8) and submit separately through ALDER as a licensee return AND answer questions 5-12 below. Groundwater monitoring template	yes			<p>Analytical results from the 2016 monitoring rounds were in line with those of previous monitoring. The monitoring was completed in accordance with the site's Industrial Emissions Licence requirements and is reported in accordance with Stage 1 - Step 2 of the Environmental Protection Agency's Guidance on the Management of Contaminated Land and Groundwater at EPA Licenced Sites, issued in 2013.</p> <p>The site is underlain by Waulsortian limestone bedrock, with the overlying subsoils ranging from 1.5 m to 4 m in thickness across the site. The inferred groundwater flow direction, confirmed at both monitoring rounds in 2016, in the limestone bedrock aquifer is to the east towards the River Deel. This is consistent with previous monitoring at the site.</p> <p>Field measurements of water quality parameters and redox indicators were also generally consistent with previous rounds and indicate that dissolved oxygen concentrations in groundwater are low to moderate and groundwater is moderately to strongly reducing.</p> <p>Monitoring results for Round 2 2016 can be summarised as follows: - The majority of major ion concentrations reported in September 2016 are comparable to the previous monitoring round in March 2016 for all wells excluding BH101. At well BH101, the majority of major ion concentrations increased between March 2016 and September 2016. - Several major ions exceeded assessment criteria. Elevated concentrations of calcium, sodium, chloride and potassium in groundwater at several wells are likely to reflect the site's coastal setting.</p> <p>Based on the current site status and monitoring data (particularly the major ion data) it is considered there is a limited degree of mixing between groundwater and surface water bodies close to the River Deel estuary. During high tide in the river, the gradient of water flow is expected to be from the river outwards to the surrounding limestone aquifer, reversing under low tide conditions.</p>
5	Is the contamination related to operations at the facility (either current and/or historic)	no			
6	Have actions been taken to address contamination issues? If yes please summarise remediation strategies proposed/undertaken for the site	N/A			
7	Please specify the proposed time frame for the remediation strategy	N/A			
8	Is there a licence condition to carry out/update ELRA for the site?	yes			
9	Has any type of risk assessment been carried out for the site?	yes			
10	Has a Conceptual Site Model been developed for the site?	yes			
11	Have potential receptors been identified on and off site?	yes			
12	Is there evidence that contamination is migrating offsite?	no			

Table 1: Upgradient Groundwater monitoring results

Groundwater/Soil monitoring template										
Lic No: P0395-03 Year 2016										
Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration++	Average Concentration+	unit	GTV's*	SELECT**	Upward trend in pollutant concentration over last 5 years of monitoring data
20/09/2017	BH201	pH	pH probe	Biannual	8.07	8.03	pH units	N/A	N/A	no
07/03/2017	BH201	COD	Colourimetric	Biannual	12	12	mg/l	N/A	N/A	no
07/03/2017	BH201	Calcium	ICP-OES	Biannual	63	62	mg/l	N/A	200	no
20/09/2017	BH201	Iron (dissolved)	ICP-OES	Biannual	ND	ND	mg/l	N/A	0.2	no
20/09/2017	BH201	Magnesium	ICP-OES	Biannual	7	6.5	mg/l	N/A	50	no
07/03/2017	BH201	Manganese (dissolved)	ICP-OES	Biannual	0.004	0.004	mg/l	N/A	0.05	no
07/03/2017	BH201	Potassium	ICP-OES	Biannual	5	4.5	mg/l	N/A	5	no
20/09/2017	BH201	Sodium	ICP-OES	Biannual	55	54.5	mg/l	150	150	no
20/09/2017	BH201	Total Alkalinity (CaCO ₃)	Metrohm	Biannual	192	190	mg/l	N/A	N/A	no
20/09/2017	BH201	Chloride	Aquakem	Biannual	63	59.5	mg/l	187.5	30	no
20/09/2017	BH201	Nitrate (as NO ₃)	Aquakem	Biannual	9	5.5	mg/l	37.5	25	no
20/09/2017	BH201	Nitrite (as NO ₂)	Aquakem	Biannual	ND	ND	mg/l	0.375	0.1	no
20/09/2017	BH201	Orthophosphate	Aquakem	Biannual	0.09	0.075	mg/l	N/A	0.03	yes
20/09/2017	BH201	Sulphate as SO ₄	Aquakem	Biannual	28	21.5	mg/l	187.5	200	no
20/09/2017	BH201	Fluoride	Dionex	Biannual	ND	ND	mg/l	N/A	1	no

.+ where average indicates arithmetic mean

++. maximum concentration indicates the maximum measured concentration from all monitoring results produced during the reporting year

Table 2: Downgradient Groundwater monitoring results

Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration	Average Concentration	unit	GTV's*	SELECT**	Upward trend in yearly average pollutant concentration over last 5 years of monitoring data
20/09/2017	BH203	pH	pH probe	Biannual	8.26	7.99	pH units	N/A	N/A	no
20/09/2017	BH203	COD	Colourimetric	Biannual	8	8	mg/l	N/A	N/A	no
20/09/2017	BH203	Calcium	ICP-OES	Biannual	76	74	mg/l	N/A	200	no
20/09/2017	BH203	Iron (dissolved)	ICP-OES	Biannual	ND	ND	mg/l	N/A	0.2	no
20/09/2017	BH203	Magnesium	ICP-OES	Biannual	8	7	mg/l	N/A	50	no
20/09/2017	BH203	Manganese (dissolved)	ICP-OES	Biannual	0.07	0.065	mg/l	N/A	0.05	no
20/09/2017	BH203	Potassium	ICP-OES	Biannual	14	11.5	mg/l	N/A	5	no
07/03/2017	BH203	Sodium	ICP-OES	Biannual	48	39.5	mg/l	150	150	no

Groundwater/Soil monitoring template				Lic No:	P0395-03	Year	2016			
07/03/2017	BH203	Total Alkalinity (CaCO ₃)	Metrohm	Biannual	234	225	mg/l	N/A	N/A	no
07/03/2017	BH203	Chloride	Aquakem	Biannual	38	34	mg/l	187.5	30	no
20/09/2017	BH203	Nitrate (as NO ₃)	Aquakem	Biannual	5	3.5	mg/l	37.5	25	no
07/03/2017	BH203	Nitrite (as NO ₂)	Aquakem	Biannual	0.03	0.03	mg/l	0.375	0.1	no
07/03/2017	BH203	Orthophosphate	Aquakem	Biannual	ND	ND	mg/l	N/A	0.03	no
20/09/2017	BH203	Sulphate as SO ₄	Aquakem	Biannual	50	46	mg/l	187.5	200	yes
20/09/2017	BH203	Fluoride	Dionex	Biannual	ND	ND	mg/l	N/A	1	no
<p>*please note exceedance of generic assessment criteria (GAC) such as a Groundwater Threshold Value (GTV) or an Interim Guideline Value (IGV) or an upward trend in results for a substance indicates that further interpretation of monitoring results is required. In addition to completing the above table, please complete the Groundwater Monitoring Guideline Template Report at the link provided and submit separately through ALDER as a licensee return or as otherwise instructed by the EPA. Groundwater monitoring template</p>										
<p>More information on the use of soil and groundwater standards/ generic assessment criteria (GAC) and risk assessment tools is available in the EPA published guidance (see the link in G31) Guidance on the Management of Contaminated Land and Groundwater at EPA Licensed Sites (EPA 2013).</p>										
<p>**Depending on location of the site and proximity to other sensitive receptors alternative Receptor based Water Quality standards should be used in addition to the GTV e.g. if the site is close to surface water compare to Surface Water Environmental Quality Standards (SWEQS), If the site is close to a drinking water supply compare results to the Drinking Water Standards (DWS)</p>										
<p>Surface water EQS Groundwater regulations Drinking water (private supply) standards Drinking water (public supply) standards Interim Guideline Values (IGV)</p>										

Groundwater/Soil monitoring template Lic No: P0395-03 Year 2016

Table 3: Soil results

Date of sampling	Sample location reference	Parameter/ Substance	Methodology	Monitoring frequency	Maximum Concentration	Average Concentration	unit
							SELECT
							SELECT

Where additional detail is required please enter it here in 200 words or less

Environmental Liabilities template

Lic No:

P0395-03

Year

2016

[Click here to access EPA guidance on Environmental Liabilities and Financial provision](#)

		Commentary	
1	ELRA initial agreement status	Submitted and not agreed by EPA;	
2	ELRA review status	Review required and completed	
3	Amount of Financial Provision cover required as determined by the latest ELRA	€ 1,778,733.00	
4	Financial Provision for ELRA status	Submitted and not agreed by EPA;	
5	Financial Provision for ELRA - amount of cover	All liabilities (known and inknow)	
6	Financial Provision for ELRA - type	Other please specify	Corp. Insurance Policy & Nestle S.A. Central Funds
7	Financial provision for ELRA expiry date	No date specified	
8	Closure plan initial agreement status	Closure plan submitted and not agreed by EPA	
9	Closure plan review status	Review required and completed	
10	Financial Provision for Closure status	Submitted and not agreed by EPA;	
11	Financial Provision for Closure - amount of cover	All liabilities (known and inknow)	
12	Financial Provision for Closure - type	Other please specify	Financial Security
13	Financial provision for Closure expiry date	No date specified	

Environmental Management Programme/Continuous Improvement Programme template	Lic No:	P0395-03	Year	2016
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	Highlighted cells contain dropdown menu click to view	Additional Information
1	Do you maintain an Environmental Management System (EMS) for the site. If yes, please detail in additional information	Yes ISO 14001:2004
2	Does the EMS reference the most significant environmental aspects and associated impacts on-site	Yes
3	Does the EMS maintain an Environmental Management Programme (EMP) as required in accordance with the licence requirements	Yes
4	Do you maintain an environmental documentation/communication system to inform the public on environmental performance of the facility, as required by the licence	Yes

Environmental Management Programme (EMP) report

Objective Category	Target	Status (% completed)	How target was progressed	Responsibility	Intermediate outcomes
Waste reduction/Raw material usage efficiency	Reduction of 35% of water use per unit of production between 2010 and 2017.	80	Over 30% reduction achieved by the end of 2016	Section Head	Improved Environmental Management Practices
Waste reduction/Raw material usage efficiency	Elimination of the landfilling of waste by 2015 and ensure that this elimination is maintained.	100	Continuing to work on specific projects to reduce overall waste generated.	Section Head	Improved Environmental Management Practices
Additional improvements	Incorporate sustainability into the procurement process for Irish suppliers of dairy ingredients.	100	Environmental sustainability programmes for all suppliers of Irish dairy ingredients have been reviewed and feedback given.	Section Head	Improved Environmental Management Practices
Additional improvements	Develop and manage areas for the promotion of biodiversity	90	Two areas developed with ongoing management.	Section Head	Improved Environmental Management Practices
Energy Efficiency/Utility conservation	Reduction of 3.5% in energy use per unit of production each year in 2015, 2016 and 2017.	50	Not on target. Improvement projects implemented but savings have been negated by changes in operating practices.	Section Head	Improved Environmental Management Practices

Noise monitoring summary report

Lic No: P0395-03

Year

2016

1 Was noise monitoring a licence requirement for the AER period?

If yes please fill in table N1 noise summary below

Yes

2 Was noise monitoring carried out using the EPA Guidance note, including completion of the "Checklist for noise measurement report" included in the guidance note as table 6?

[Noise Guidance note NG4](#)

Yes

3 Does your site have a noise reduction plan

Yes

4 When was the noise reduction plan last updated?

Aug-16

5 Have there been changes relevant to site noise emissions (e.g. plant or operational changes) since the last noise survey?

No

Table N1: Noise monitoring summary

Date of monitoring	Time period	Noise location (on site)	Noise sensitive location -NSL (if applicable)	LA _{eq}	LA ₉₀	LA ₁₀	LA _{max}	Tonal or Impulsive noise* (Y/N)	If tonal /impulsive noise was identified was 5dB penalty applied?	Comments (ex. main noise sources on site, & extraneous noise ex. road traffic)	Is site compliant with noise limits (day/evening/night)?
23/24 May 2016	Day		NSL 1	59	33	42	83	No	No	Local distant traffic, birds, plant not audible.	Yes
23/24 May 2016	Day		NSL 2	67	47	66	94	No	No	Traffic noise from N69, local traffic. Plant barely audible in traffic lulls. Birds singing, trees rustling.	Yes
23/24 May 2016	Day		NSL 3	54	45	58	67	No	No	Traffic noise from N69 and local traffic. Birds, ventilation noise at nursing home. Plant not audible.	Yes
23/24 May 2016	Day		NSL 4	58	46	60	80	No	No	Traffic noise from N69 and local traffic. Birds. Low level steady plant noise barely audible in traffic lulls.	Yes
23/24 May 2016	Day		NSL 5	48	34	48	75	No	No	Farmyard noise. Distant traffic N69. Local traffic. Plant not audible in traffic lulls.	Yes
23/24 May 2016	Day		NSL 6	44	34	46	63	No	No	Farmyard noise. Birds, trees rustling. Local & distant traffic. Low level steady plant noise audible in traffic lulls.	Yes
23/24 May 2016	Evening		NSL 1	51	25	41	79	No	No	Local & distant traffic, farm animals, plant not audible.	Yes

23/24 May 2016	Evening		NSL 2	58	45	58	81	No	No	Traffic N69 and local. Birds. Low level plant noise audible during traffic lulls.	Yes
23/24 May 2016	Evening		NSL 3	52	40	57	70	No	No	N69 Traffic noise. Local traffic. Dog barking. Plant not audible here.	Yes
23/24 May 2016	Evening		NSL 4	56	48	58	73	No	No	N69 & local traffic. Birds. Plant not audible.	Yes
23/24 May 2016	Evening		NSL 5	46	35	50	63	No	No	Distant & local traffic noise. Plant not audible.	Yes
23/24 May 2016	Evening		NSL 6	48	34	51	68	No	No	Distant traffic noise. Low level steady plant noise in traffic lulls.	Yes
23/24 May 2016	Night		NSL 1	41	38	42	67	No	No	Distant traffic, plant clearly audible.	Yes
23/24 May 2016	Night		NSL 2	50	43	51	68	No	No	Local and N69 traffic, steady low level plant noise audible in traffic lulls.	Yes
23/24 May 2016	Night		NSL 3	40	32	40	61	No	No	N69 traffic. Ventilation noise low at nursing home. Low level steady plant noise barely audible.	Yes
23/24 May 2016	Night		NSL 4	56	36	48	84	No	No	N69 and local traffic. Dogs barking. Steady low level plant noise audible in traffic lulls.	Yes
23/24 May 2016	Night		NSL 5	40	37	42	65	No	No	Distant traffic (N69), low level steady plant noise.	Yes
23/24 May 2016	Night		NSL 6	40	37	42	58	47	No	Distant traffic (N69), low level steady plant noise.	Yes

*Please ensure that a tonal analysis has been carried out as per guidance note NG4. These records must be maintained onsite for future inspection

If noise limits exceeded as a result of noise attributed to site activities, please choose the corrective action from the following options?

SELECT

** please explain the reason for not taking action/resolution of noise issues?
Any additional comments? (less than 200 words)

Resource Usage/Energy efficiency summary

Lic No:

P0395-03

Year

2016

- 1 When did the site carry out the most recent energy efficiency audit? Please list the recommendations in table 3 below
- 2 Is the site a member of any accredited programmes for reducing energy usage/water conservation such as the SEAI programme linked to the right? If yes please list them in additional information
- 3 Where Fuel Oil is used in boilers on site is the sulphur content compliant with licence conditions? Please state percentage in additional information

Additional information

Enter date of audit	ETS in Nov. 2014
Yes	We are a member of the LIEN and the SEAI Energy Agreements Program
Yes	<1%

Energy Use	Previous year	Current year	Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*
Total Energy Used (MWHrs)	204,228	205,844	3.61%	2.80%
Total Energy Generated (MWHrs)	40,313	37,094	N/A	N/A
Total Renewable Energy Generated (MWHrs)	0	0	N/A	N/A
Electricity Consumption (MWHrs)				
Fossil Fuels Consumption:				
Heavy Fuel Oil (m3)	0	0	N/A	N/A
Light Fuel Oil (m3)	0	0	N/A	N/A
Natural gas (m3)	18,361,840	18,449,062		
Coal/Solid fuel (metric tonnes)	0	0	N/A	N/A
Peat (metric tonnes)	0	0	N/A	N/A
Renewable Biomass	0	0	N/A	N/A
Renewable energy generated on site	0	0	N/A	N/A

* where consumption of energy can be compared to overall site production please enter this information as percentage increase or decrease compared to the previous reporting year.

** where site production information is available please enter percentage increase or decrease compared to previous year

Water use	Water extracted Previous year m3/yr.	Water extracted Current year m3/yr.	Production +/- % compared to previous reporting year**	Energy Consumption +/- % vs overall site production*	Water Emissions		Water Consumption	
					Volume Discharged back to environment(m ³ /yr):	Volume used i.e not discharged to environment e.g. released as steam m3/yr	Unaccounted for Water:	
Groundwater								
Surface water	720061	745485	3.7	3.5	685627	Not available		59858
Public supply								
Recycled water								
Total	720061	745485	3.7	3.5	685627	Not available		59858

* where consumption of water can be compared to overall site production please enter this information as percentage increase or decrease compared to the previous reporting year.

** where site production information is available please enter percentage increase or decrease compared to previous year

	Total	Landfill	Incineration	Recycled	Other
Hazardous (Tonnes)	16.528	0	6.957	7.601	1.97
Non-Hazardous (Tonnes)	8904.49	1.94	346.244	8556.27	0

Resource Usage/Energy efficiency summary	Lic No: P0395-03	Year	2016
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Table R4: Energy Audit finding recommendations								
Date of audit	Recommendations	Description of Measures proposed	Origin of measures	Predicted energy savings %	Implementation date	Responsibility	Completion date	Status and comments
Nov-14	33 individual projects identified	Various	other initiative (please specify)	22%	01/01/2015	Energy Engineer	31/12/2019	Energy Target Setting is a Nestle corporate initiative used to plan energy and water reduction measures.
			SELECT					
			SELECT					

Table R5: Power Generation: Where power is generated onsite (e.g. power generation facilities/food and drink industry) please complete the following information

	Unit ID	Unit ID	Unit ID	Unit ID	Station Total
Technology	CHP				CHP
Primary Fuel	Natural Gas				Natural Gas
Thermal Efficiency	80-85%				80-85%
Unit Date of Commission	01/01/2005				01/01/2005
Total Starts for year	24/7 operation				24/7 operation
Total Running Time	8,413 hours				8,413 hours
Total Electricity Generated (GWH)	37.09				37.09
House Load (GWH)	32				32
KWH per Litre of Process Water	0.0017				0.0017
KWH per Litre of Total Water used on	0.001				0.001

Complaints and Incidents summary template Lic No: P0395-03 Year 2016

Complaints		Additional information
Have you received any environmental complaints in the current reporting year? If yes please complete summary details of complaints received on site in table 1 below		Yes

Date	Category	Other type (please specify)	Brief description of complaint (Free txt <20 words)	Corrective action< 20 words	Resolution status	Resolution date	Further information
07/03/2016	Dust		Alleged dust deposits on windows on nearby residents house.	None, deposits did not originate from licensee site.	Complete	07/03/2016	
25/03/2016	Noise		Intermittent banging noise from the site.	Pressure valve lifting. Valve was repaired.	Complete	26/03/2016	
04/07/2016		Excavation works at site boundary	Damage to fence, maintenance and drainage concerns.	Fence repaired, provided consultant's report on maintenance and drainage.	Complete	31/08/2016	
17/11/2016	Odour		Odour detected at nearby residents house.	Issues with the WWTP process. Resolved issue and WWTP operation returned to normal. Rot cause identified and preventative actions put in place.	Complete	26/11/2016	
	SELECT				SELECT		
Total complaints open at start of reporting year						0	
Total new complaints received during reporting year						4	
Total complaints closed during reporting year						4	
Balance of complaints end of reporting year						0	

Incidents		Additional information
Have any incidents occurred on site in the current reporting year? Please list all incidents for current reporting year in Table 2 below		Yes

*For information on how to report and what constitutes an incident [What is an incident](#)

Date of occurrence	Incident nature	Location of occurrence	Incident category*please refer to guidance	Receptor	Cause of incident	Other cause(please specify)	Activity in progress at time of incident	Communication	Occurrence	Corrective action<20 words	Preventative action <20 words	Resolution status	Resolution date	Likelihood of reoccurrence
04/11/2016	Breach of ELV	Licensed discharge point (A2-6)	1. Minor	Air	Other (add details)	Possible adjustments made to operating equipment.	Normal activities	EPA	New	Confirm with operations that there were no operational issues and what product was being processed. Arrange for a re-check of emissions.	Re-check of the emissions indicate that there was no issue.	Complete	20/12/2016	Low
	SELECT	SELECT	SELECT	SELECT	SELECT		SELECT	SELECT	SELECT			SELECT		SELECT
	SELECT	SELECT	SELECT	SELECT	SELECT		SELECT	SELECT	SELECT			SELECT		SELECT
	SELECT	SELECT	SELECT	SELECT	SELECT		SELECT	SELECT	SELECT			SELECT		SELECT

WASTE SUMMARY		Lic No:	P0395-03	Year	2016
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Table 4 Environmental monitoring-landfill only [Landfill Manual-Monitoring Standards](#)

Was meteorological monitoring in compliance with Landfill Directive (LD) standard in reporting year +	Was leachate monitored in compliance with LD standard in reporting year	Was Landfill Gas monitored in compliance with LD standard in reporting year	Was SW monitored in compliance with LD standard in reporting year	Have GW trigger levels been established	Were emission limit values agreed with the Agency (ELVs)	Was topography of the site surveyed in reporting year	Has the statement under S53(A)(5) of WMA been submitted in reporting year	Comments

.* please refer to Landfill Manual linked above for relevant Landfill Directive monitoring standards

Table 5 Capping-Landfill only

Area uncapped*	Area with temporary cap	Area with final cap to LD Standard m2 ha, a	Area capped other	Area with waste that should be permanently capped to date under licence	What materials are used in the cap	Comments
SELECT UNIT	SELECT UNIT					

*please note this includes daily cover area

Table 6 Leachate-Landfill only

9 Is leachate from your site treated in a Waste Water Treatment Plant?

SELECT
SELECT

10 Is leachate released to surface water? If yes please complete leachate mass load information below

Volume of leachate in reporting year(m3)	Leachate (BOD) mass load (kg/annum)	Leachate (COD) mass load (kg/annum)	Leachate (NH4) mass load (kg/annum)	Leachate (Chloride) mass load kg/annum	Leachate treatment on-site	Specify type of leachate treatment	Comments

Please ensure that all information reported in the landfill gas section is consistent with the Landfill Gas Survey submitted in conjunction with PRTR returns

Table 7 Landfill Gas-Landfill only

Gas Captured&Treated by LFG System m3	Power generated (MW / KWh)	Used on-site or to national grid	Was surface emissions monitoring performed during the reporting year?	Comments
			SELECT	

Comments on
liner type

[Guidance to completing the PRTR workbook](#)

PRTR Returns Workbook

Version 1.1-19

REFERENCE YEAR	2016
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1. FACILITY IDENTIFICATION

Parent Company Name	Wyeth Nutritionals Ireland Ltd
Facility Name	Wyeth Nutritionals Ireland Limited
PRTR Identification Number	P0395
Licence Number	P0395-03

Classes of Activity	
No.	class_name
	Refer to PRTR class activities below

Address 1	Coolrahee
Address 2	Askeaton
Address 3	
Address 4	
	Limerick
Country	Ireland
Coordinates of Location	-8.98170 52.6091
River Basin District	IEGBNISH
NACE Code	1086
Main Economic Activity	Manufacture of homogenised food preparations and dietetic food
AER Returns Contact Name	Brian Shiel
AER Returns Contact Email Address	brian.shiel@wyethnutrition.com
AER Returns Contact Position	Safety, Health & Environment Lead
AER Returns Contact Telephone Number	061 601 307
AER Returns Contact Mobile Phone Number	087 1304522
AER Returns Contact Fax Number	-
Production Volume	
Production Volume Units	
Number of Installations	
Number of Operating Hours in Year	
Number of Employees	600
User Feedback/Comments	Increases in emissions to air: Total particulates increased by 36% due to increased production output and increased airflows. Carbon Monoxide increased by 146% compared to 2015 mass emissions, however, lower than 2014 and 2013 mass emissions.
Web Address	

2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
8(c)	Treatment and processing of milk
1(c)	Thermal power stations and other combustion installations

3. SOLVENTS REGULATIONS (S.I. No. 543 of 2002)

Is it applicable?	No
Have you been granted an exemption?	
If applicable which activity class applies (as per Schedule 2 of the regulations)?	
Is the reduction scheme compliance route being used?	

4. WASTE IMPORTED/ACCEPTED ONTO SITE

[Guidance on waste imported/accepted onto site](#)

Do you import/accept waste onto your site for on-site treatment (either recovery or disposal activities)?	
---	--

This question is only applicable if you are an IPPC or Quarry site

4.1 RELEASES TO AIR

[Link to previous years emissions data](#)

| PRTR# : P0395 | Facility Name : Wyeth Nutritionals Ireland Limited | Filename : Copy of P0395_2016.xls | Return Year : 2016 |

17/02/2017 10:57

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

POLLUTANT		METHOD		Please enter all quantities in this section in KGs				QUANTITY			
No. Annex II	Name	M/C/E	Method Used		Emission Point 1	Emission Point 2	Emission Point 3	Emission Point 4	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description							
02	Carbon monoxide (CO)	M	EN 15058:2004		14891.0	27.0	11.0	0.0	14929.0	0.0	0.0
03	Carbon dioxide (CO2)	C	ETS		0.0	0.0	0.0	37666818.0	37666818.0	0.0	0.0
08	Nitrogen oxides (NOx/NO2)	M	ISO 10849:1996		41226.0	745.0	235.0	0.0	42206.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING PRTR POLLUTANTS

POLLUTANT		METHOD		Please enter all quantities in this section in KGs				
No. Annex II	Name	M/C/E	Method Used		Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description				
					0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION C : REMAINING POLLUTANT EMISSIONS (As required in your Licence)

POLLUTANT		METHOD		Please enter all quantities in this section in KGs				QUANTITY			
Pollutant No.	Name	M/C/E	Method Used		Emission Point 1	Emission Point 2	Emission Point 3	Emission Point 4	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			Method Code	Designation or Description							
210	Dust	M	CRM	EN 13284-1:2002	767.0	5340.0	14050.0	17906.0	38063.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

Additional Data Requested from Landfill operators

For the purposes of the National Inventory on Greenhouse Gases, landfill operators are requested to provide summary data on landfill gas (Methane) flared or utilised on their facilities to accompany the figures for total methane generated. Operators should only report their Net methane (CH4) emission to the environment under T(total) KG/yr for Section A: Sector specific PRTR pollutants above. Please complete the table below:

Landfill:	Wyeth Nutritionals Ireland Limited				
Please enter summary data on the quantities of methane flared and / or utilised	T (Total) kg/Year	M/C/E	Method Code	Designation or Description	Facility Total Capacity m3 per hour
	Total estimated methane generation (as per site model)	0.0			N/A
	Methane flared	0.0			0.0 (Total Flaring Capacity)
	Methane utilised in engine/s	0.0			0.0 (Total Utilising Capacity)
	Net methane emission (as reported in Section A above)	0.0			N/A

4.2 RELEASES TO WATERS

[Link to previous years emissions data](#)

[PRTR#: P0395 | Facility Name : Wyeth Nutritionals Ireland Limited | Filename : Copy of P0395_2016.xls | Return Year : 2016]

17/02/2017 10:57

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

Data on ambient monitoring of storm/surface water or groundwater, conducted as part of your licence requirements, should NOT be submitted under AER / PRTR Reporting as this only con

POLLUTANT		RELEASERS TO WATERS			Please enter all quantities in this section in KGs			
No. Annex II	Name	M/C/E	Method Used		Emission Point 1	QUANTITY		
			Method Code	Designation or Description		T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
12	Total nitrogen	M	OTH	Colorimetric Hach Method 1007	1285.71	1285.71	0.0	0.0
13	Total phosphorus	M	OTH	Colorimetric Hach Method 8190	123.43	123.43	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING PRTR POLLUTANTS

POLLUTANT		RELEASERS TO WATERS			Please enter all quantities in this section in KGs			
No. Annex II	Name	M/C/E	Method Used		Emission Point 1	QUANTITY		
			Method Code	Designation or Description		T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
					0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION C : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

POLLUTANT		RELEASERS TO WATERS			Please enter all quantities in this section in KGs			
Pollutant No.	Name	M/C/E	Method Used		Emission Point 1	QUANTITY		
			Method Code	Designation or Description		T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
238	Ammonia (as N)	M	OTH	Colorimetric Hach Method 10031	571.98	571.98	0.0	0.0
303	BOD	M	OTH	5-day BOD Test	6982.99	6982.99	0.0	0.0
314	Fats, Oils and Greases	E	ESTIMATE		2319.71	2319.71	0.0	0.0
306	COD	M	OTH	Hach Reactor digestion	18138.54	18138.54	0.0	0.0
240	Suspended Solids	M	OTH	Standard method	10465.2	10465.2	0.0	0.0
387	Ortho-phosphate (as P)	M	OTH	EN ISO 6878:2004	25.89	25.89	0.0	0.0

SECTION B : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

OFFSITE TRANSFER OF POLLUTANTS DESTINED FOR WASTE-WATER TREATMENT OR SEWER					Please enter all quantities in this section in KGs				
POLLUTANT			METHOD		QUANTITY				
Pollutant No.	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year	
						0.0	0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

4.4 RELEASES TO LAND

[Link to previous years emissions data](#)

| PRTR# : P0395 | Facility Name : Wyeth Nutritionals Ireland Limited | Filename : Copy of P0395_2016.xls | Return Year : 2016 |

17/02/2017 10:57

SECTION A : PRTR POLLUTANTS

POLLUTANT		RELEASES TO LAND			Please enter all quantities in this section in KGs		
No. Annex II	Name	M/C/E	METHOD		Emission Point 1	QUANTITY	
			Method Code	Designation or Description		T (Total) KG/Year	A (Accidental) KG/Year
					0.0	0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) then click the delete button

SECTION B : REMAINING POLLUTANT EMISSIONS (as required in your Licence)

POLLUTANT		RELEASES TO LAND			Please enter all quantities in this section in KGs		
Pollutant No.	Name	M/C/E	METHOD		Emission Point 1	QUANTITY	
			Method Code	Designation or Description		T (Total) KG/Year	A (Accidental) KG/Year
					0.0	0.0	0.0

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

IPRR# : P0395 | Facility Name : Wyeth Nutritionals Ireland Limited | Filename : Copy of P0395_2016.xls | Return Year : 2016 |

17/02/2017 10:57

0

Please enter all quantities on this sheet in Tonnes

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz.Waste - Name and Licence/Permit No of Next Destination Facility Non-Haz.Waste - Name and Licence/Permit No of Recover/Disposer	Haz.Waste - Address of Next Destination Facility Non-Haz.Waste - Address of Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination (i.e. Final Recovery / Disposal Site) (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
Within the Country	02 05 01	No	9.88	materials unsuitable for consumption or processing	R1	M	Weighted	Offsite in Ireland	Clean (Ir) Refuse & Recycling Company Limited,W0253-01	Ballingun West,Cree,Co. Clare, Ireland		
Within the Country	02 05 01	No	762.96	materials unsuitable for consumption or processing	R3	M	Weighted	Offsite in Ireland	Clean (Ir) Refuse & Recycling Company Limited,W0253-01	Ballingun West,Cree,Co. Clare, Ireland		
Within the Country	02 05 02	No	3788.12	sludges from on-site effluent treatment	R3	M	Weighted	Offsite in Ireland	McDonnell Farms Biogas Ltd.,WFP/LK/2011/50/R2/T1	Dunmoylan,Shanagolden,Co. Limerick, Ireland		
Within the Country	06 02 05	Yes	1.97	other bases	D9	M	Weighted	Offsite in Ireland	Enva Ireland Ltd.,W0041-01	Smithstown Ind. Est.,Shannon,Co. Clare, Ireland	Enva Ireland Ltd.,W0041-01,Smithstown Ind. Est.,Shannon,Co. Clare, Ireland	Smithstown Ind. Est.,Shannon,Co. Clare, Ireland
To Other Countries	06 02 05	Yes	1.119	other bases	R1	M	Weighted	Abroad	Enva Ireland Ltd.,W0041-01	Smithstown Ind. Est.,Shannon,Co. Clare, Ireland	Umweltservice,04 714 98089,Krombacher Strabe 42-46,57223,Kreutzal, Germany	Krombacher Strabe 42-46,57223,Kreutzal, Germany
To Other Countries	07 01 04	Yes	0.379	other organic solvents, washing liquids and mother liquors	R1	M	Weighted	Abroad	Enva Ireland Ltd.,W0041-01	Smithstown Ind. Est.,Shannon,Co. Clare, Ireland	Geocycle,38/152/BP,S.A. Scorbet,rue de Courriere 42,7181 Senefle, Belgium	S.A. Scorbet,rue de Courriere 42,7181 Senefle, Belgium
To Other Countries	07 01 04	Yes	0.778	other organic solvents, washing liquids and mother liquors	R2	M	Weighted	Abroad	Enva Ireland Ltd.,W0041-01	Smithstown Ind. Est.,Shannon,Co. Clare, Ireland	Umweltservice,04 714 98089,Krombacher Strabe 42-46,57223,Kreutzal, Germany	Krombacher Strabe 42-46,57223,Kreutzal, Germany
To Other Countries	13 02 08	Yes	0.229	other engine, gear and lubricating oils	R1	M	Weighted	Abroad	Enva Ireland Ltd.,W0041-01	Smithstown Ind. Est.,Shannon,Co. Clare, Ireland	Enva Ireland Ltd.,184-1,Clonminam Ind. Est.,Portlaoise,Co. Laoise, Ireland	Krombacher Strabe 42-46,57223,Kreutzal, Germany
Within the Country	13 02 08	Yes	3.52	other engine, gear and lubricating oils	R9	M	Volume Calculation	Offsite in Ireland	Enva Ireland Ltd.,184-1,Clonminam Ind. Est.,Portlaoise,Co. Laoise, Ireland	Ballykeefe Towland,Dock Road,Limerick, Ireland		Clonminam Ind. Est.,Portlaoise,Co. Laoise, Ireland
Within the Country	15 01 01	No	60.9	paper and cardboard packaging	R3	M	Weighted	Offsite in Ireland	Greenstar Env. Services Ltd.,W0082-2	Ballykeefe Towland,Dock Road,Limerick, Ireland		
Within the Country	15 01 02	No	54.98	solid packaging	R3	M	Weighted	Offsite in Ireland	Greenstar Env. Services Ltd.,W0082-2	Ballykeefe Towland,Dock Road,Limerick, Ireland		
Within the Country	15 01 06	No	817.47	mixed packaging	R3	M	Weighted	Offsite in Ireland	Greenstar Env. Services Ltd.,W0082-2	Ballykeefe Towland,Dock Road,Limerick, Ireland		
To Other Countries	15 01 10	Yes	0.25	packaging containing residues of or contaminated by dangerous substances	R4	M	Weighted	Abroad	Enva Ireland Ltd.,W0041-01	Smithstown Ind. Est.,Shannon,Co. Clare, Ireland	Recyclefuel S.A.,D3200/61080/RGPED/2008/2/AP,Zoning Industriel d'Ehin,B-4480 Enqs, Belgium	Zoning Industriel d'Ehin,B-4480 Enqs, Belgium
To Other Countries	15 01 10	Yes	0.267	packaging containing residues of or contaminated by dangerous substances	R1	M	Weighted	Abroad	Enva Ireland Ltd.,W0041-01	Smithstown Ind. Est.,Shannon,Co. Clare, Ireland	Recyclefuel S.A.,D3200/61080/RGPED/2008/2/AP,Zoning Industriel d'Ehin,B-4480 Enqs, Belgium	Zoning Industriel d'Ehin,B-4480 Enqs, Belgium
To Other Countries	15 01 10	Yes	0.087	packaging containing residues of or contaminated by dangerous substances	R3	M	Weighted	Abroad	Enva Ireland Ltd.,W0041-01	Smithstown Ind. Est.,Shannon,Co. Clare, Ireland	Recyclefuel S.A.,D3200/61080/RGPED/2008/2/AP,Zoning Industriel d'Ehin,B-4480 Enqs, Belgium	Zoning Industriel d'Ehin,B-4480 Enqs, Belgium
To Other Countries	15 02 02	Yes	0.07	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances	R1	M	Weighted	Abroad	Enva Ireland Ltd.,W0041-01	Smithstown Ind. Est.,Shannon,Co. Clare, Ireland	Umweltservice,04 714 98089,Krombacher Strabe 42-46,57223,Kreutzal, Germany	Krombacher Strabe 42-46,57223,Kreutzal, Germany
Within the Country	16 05 04	Yes	0.014	gases in pressure containers (including halons) containing dangerous substances	R4	M	Weighted	Offsite in Ireland	Enva Ireland Ltd.,W0041-01	Smithstown Ind. Est.,Shannon,Co. Clare, Ireland	Enva Ireland Ltd.,184-1,Clonminam Ind. Est.,Portlaoise,Co. Laoise, Ireland	Clonminam Ind. Est.,Portlaoise,Co. Laoise, Ireland
To Other Countries	16 05 06	Yes	4.888	laboratory chemicals, consisting of or containing dangerous substances, including mixtures of concrete, bricks, tiles and ceramics other than those mentioned in 17 01 06	R1	M	Weighted	Abroad	Enva Ireland Ltd.,W0041-01	Smithstown Ind. Est.,Shannon,Co. Clare, Ireland	Umweltservice,04 714 98089,Krombacher Strabe 42-46,57223,Kreutzal, Germany	Krombacher Strabe 42-46,57223,Kreutzal, Germany
Within the Country	17 01 07	No	1077.26	01 06	R5	M	Weighted	Offsite in Ireland	Greenstar Env. Services National Document Management Group Ltd. v/a Shred,WFP-DC-09-0011-01	Ballykeefe Towland,Dock Road,Limerick, Ireland		
Within the Country	20 01 01	No	22.398	paper	R3	M	Weighted	Offsite in Ireland	Greenstar Env. Services Ltd.,W0082-2	5 Parkwest Ind. Est.,Dublin,Dublin 12,Ireland		
Within the Country	20 01 01	No		paper and cardboard	R3	M	Weighted	Offsite in Ireland	Greenstar Env. Services Ltd.,W0082-2	Ballykeefe Towland,Dock Road,Limerick, Ireland		
Within the Country	20 01 02	No	21.25	glass	R5	M	Weighted	Offsite in Ireland	Greenstar Env. Services Ltd.,W0082-2	Ballykeefe Towland,Dock Road,Limerick, Ireland		
Within the Country	20 01 21	Yes	0.359	fluorescent tubes and other mercury-containing waste	R5	M	Weighted	Offsite in Ireland	Irish Lamp Recycling Co. Ltd.,WFP-KE-14-0072-01	Woodstock Ind. Est.,Kilkenny Road, Athy Co. Kildare, Ireland	Irish Lamp Recycling Co. Ltd.,WFP-KE-14-0072-01,Woodstock Ind. Est.,Kilkenny Road, Athy Co. Kildare, Ireland	Woodstock Ind. Est.,Kilkenny Road, Athy Co. Kildare, Ireland
To Other Countries	20 01 25	No	54.27	edible oil and fat	R3	M	Weighted	Abroad	Bensons Products Ltd.,LN-53763	MacDermott Road,Widnes,Cheshire,WA8 0PF,United Kingdom		
Within the Country	20 01 33	Yes	0.193	batteries and accumulators included in 16 06 01, 16 06 02 or 16 06 03 and unsorted batteries and accumulators containing these discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components	R11	M	Weighted	Offsite in Ireland	Irish Lamp Recycling Co. Ltd.,WFP-KE-14-0072-01	Woodstock Ind. Est.,Kilkenny Road, Athy Co. Kildare, Ireland	Irish Lamp Recycling Co. Ltd.,WFP-KE-14-0072-01,Woodstock Ind. Est.,Kilkenny Road, Athy Co. Kildare, Ireland	Woodstock Ind. Est.,Kilkenny Road, Athy Co. Kildare, Ireland
Within the Country	20 01 35	Yes	0.947	discarded electrical and electronic equipment other than those mentioned in 20 01 21 and 20 01 23 containing hazardous components	R4	M	Weighted	Offsite in Ireland	Irish Lamp Recycling Co. Ltd.,WFP-KE-14-0072-01	Woodstock Ind. Est.,Kilkenny Road, Athy Co. Kildare, Ireland	Enva Ireland Ltd.,184-1,Clonminam Ind. Est.,Portlaoise,Co. Laoise, Ireland	Clonminam Ind. Est.,Portlaoise,Co. Laoise, Ireland
Within the Country	20 01 38	No	67.984	wood other than that mentioned in 20 01 37	R3	M	Weighted	Offsite in Ireland	Greenstar Env. Services Ltd.,W0082-2	Ballykeefe Towland,Dock Road,Limerick, Ireland		
Within the Country	20 01 40	No	541.97	metals	R4	M	Weighted	Offsite in Ireland	Clearcric Metals Ireland Ltd.,WFP/L/2016/11/00/001/01/3/1	Ballysimon Road, Limerick, Ireland		
Within the Country	19 09 01	No	1.94	solid waste from primary filtration and screenings	D5	M	Weighted	Offsite in Ireland	Greenstar Env. Services Ltd.,W0082-2	Ballykeefe Towland,Dock Road,Limerick, Ireland		
Within the Country	20 03 01	No	336.364	mixed municipal waste	R1	M	Weighted	Offsite in Ireland	Greenstar Env. Services Ltd.,W0082-2	Ballykeefe Towland,Dock Road,Limerick, Ireland		
Within the Country	15 01 04	No	2.12	metallic packaging	R4	M	Weighted	Offsite in Ireland	Clearcric Metals Ireland Ltd.,WFP/L/2016/11/00/001/01/3/1	Ballysimon Road, Limerick, Ireland		
Within the Country	08 03 18	No	0.098	waste printing toner other than those mentioned in 08 03 17	R3	M	Weighted	Offsite in Ireland	Irish Lamp Recycling Co. Ltd.,WFP-KE-14-0072-01	Woodstock Ind. Est.,Kilkenny Road, Athy Co. Kildare, Ireland		
Within the Country	02 05 02	No	1284.89	sludges from on-site effluent treatment	R3	M	Weighted	Offsite in Ireland	Enva Ireland Ltd.,184-1	Enva Ireland Ltd.,184-1,Clonminam Ind. Est.,Portlaoise,Co. Laoise, Ireland		
To Other Countries	06 04 04	Yes	0.005	wastes containing mercury	R1	M	Weighted	Abroad	Enva Ireland Ltd.,W0041-01	Smithstown Ind. Est.,Shannon,Co. Clare, Ireland	Umweltservice,04 714 98089,Krombacher Strabe 42-46,57223,Kreutzal, Germany	Krombacher Strabe 42-46,57223,Kreutzal, Germany
To Other Countries	07 01 04	Yes	1.146	other organic solvents, washing liquids and mother liquors	R2	M	Weighted	Abroad	Enva Ireland Ltd.,W0041-01	Smithstown Ind. Est.,Shannon,Co. Clare, Ireland	Geocycle,38/152/BP,S.A. Scorbet,rue de Courriere 42,7181 Senefle, Belgium	S.A. Scorbet,rue de Courriere 42,7181 Senefle, Belgium

Within the Country	15 01 10	Yes	0.307 packaging containing residues of or contaminated by dangerous substances	R3	M	Weighed	Offsite in Ireland	Enva Ireland Ltd.,W0041-01	Smithstown Ind. Est.,Shannon,Co. Clare.,Ireland	Enva Ireland Ltd.,184-1,Cloominam Ind. Est.,Portlaoise,Co. Loaise.,Ireland	Cloominam Ind. Est.,Portlaoise,Co. Loaise.,Ireland
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Mr Brian Shiels
Wyeth Nutritionals Ireland Limited
Askeaton
Limerick

Date
14 February 2017

Dear Brian,

DMP Update 2017

Summary of Changes made to Decommissioning Management Plan, February 2017.

This letter presents a summary of the updates made to the DMP report as part of the annual review of the DMP. The latest DMP was issued on 07th February 2017 entitled "Wyeth Nutritionals Ireland Limited - Decommissioning Management Plan (DMP) Review 2017" and was prepared by AECOM Limited.

The DMP was updated in accordance with latest EPA Guidance and was carried out as part of compliance with Condition 10.2.2 of the sites IE licence.

"10.2.2 The plan shall be reviewed annually and proposed amendments thereto notified to the Agency for agreement as part of the AER. No amendments may be implemented without the written agreement of the Agency"

With regard to the changes that were made to the DMP the following outlines the main changes which were made:

- There has been no change to the licence status at the site since the previous revision of the DMP and no operational changes of significance occurred during 2016. Two 975,000 litre sprinkler water tanks have been commissioned and are located adjacent to the WWTP.
- Updating the operational performance of the site to take account of any incidents, complaints and non-compliances since the previous DMP update;
- Updating of the Production Related Waste disposal costs to reflect most recent costs for removal of waste from the site.
- Update of the quantity of AC refrigerants, from 150kg to 214kg, to account for installation of new air conditioning units.
- Correction on costs assigned to cleaning of tanks leading to an increase of €10,000.
- Correction on costs assigned to cleaning of bunds & sumps leading to an increase of €10,650.
- A review of the most recent Asbestos Management Plan for the site to incorporate any changes.
- Increase in the quantity of wastes provided in Stage 1 Task 4, 5 and 6 to account for any additional wastes that may be generated.
- The restoration and aftercare management plan was also reviewed and costs were increased to reflect 2017 prices for completion of a limited investigation of potential source areas. Costs for this have been increased from €15,000 to €25,000. Bringing the total costs for the restoration and aftercare management plan, including a 20% contingency, to €81,600.

The net effect of the various changes outlined above is an overall increase in the amount of financial provisions required to fully implement the DMP from €3,565,681 (March 2015 estimated provision required) to €3,673,170 (February 2017 estimated provision required).

I hope all the above is clear, if you require any clarification on the above please do not hesitate to contact me.

Yours sincerely,



Patricia Howard
Senior Environmental Scientist
AECOM Limited
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Ossian Geraghty
& Associates

IED Licence Noise Control Plan 2016
Wyeth Nutritionals Ireland Ltd
Askeaton, Co. Limerick

August 2016

Report No. 765

Ossian Geraghty & Associates Ltd
Fawcetts Bridge, Dunally, Sligo
Ph: 085 801 8733
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IED Licence Noise Control Plan 2016

Wyeth Nutritionals Ireland Ltd

Askeaton, Co. Limerick

Executive Summary

Ossian Geraghty & Associates Ltd (OGA) was engaged by Brian Shiel from Wyeth Nutritionals Ireland Ltd to prepare a noise mitigation and control programme for their Limerick site, as required in IED licence, ref no. P0395-03, issued by the Environmental Protection Agency, (EPA).

The licence assigns a noise limit ($L_{eq,30min}$) of 55dB(A) by day and 45dB(A) by night at noise sensitive locations. In addition, there shall be no clearly audible tonal or impulsive noise component in the noise emission from the activity at noise sensitive locations.

The licensee must also prepare a noise mitigation and control programme to reduce noise emissions where applicable, in accordance with 6.14.2 of IED licence, ref no. P0395-03.

The survey consisted of the measurement of noise levels at noise sources throughout the site. The survey was undertaken on the 24th May 2016 and 16th August 2016. The measurement of noise sources onsite was undertaken in conjunction with the annual IED Environmental Noise Survey 2016, OGA Report 764.

The primary aim of this noise mitigation and control programme is to identify any noise source onsite that contribute to excessive noise at the noise sensitive locations, in excess of the noise limits set out in IED licence, ref no. P0395-03.

Objectives

The objectives of this assessment were to:

- determine the noise emissions from the various external noise sources onsite;
- record the octave spectra of the identified noise sources;
- undertake a subjective assessment of tonal and impulsive noise for each of the noise sources assessed;
- identify noise sources where mitigation or noise control may be required; and
- update the existing noise model for the site incorporating some additional noise sources.

The survey methodology followed Environmental Protection Agency (EPA) Office of Environmental Enforcement (OEE) "Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities", NG4, (January 2016), and ISO 1996 "Description and measurement of environmental noise".

The measurement duration at each noise source was of a sufficient duration to measure the average noise level. A summary of noise terminology is given in Appendix A.

An assessment of tonal and impulsive noise was undertaken subjectively at each noise source.

Noise measurements and reporting were undertaken by Ossian Geraghty BSc, MSc of Ossian Geraghty & Associates Ltd.

August 2016

Findings

The average sound pressure levels were determined and octave spectra measured from noise sources across the Wyeth Nutritionals site.

An assessment of tonal and impulsive noise was undertaken subjectively for each of the noise sources assessed, and no tonal or impulsive noise sources were detected.

The site was fully compliant with the noise limits in IED Licence P0395-03 for 2016, at all noise sensitive locations, see report OGA Ref 764. On this basis no specific noise sources have been selected for mitigation and control for 2016.

A number of additional minor noise sources have been measured and added to the noise model for the site. These have had a negligible overall noise impact at the Noise Sensitive Locations.

It is recommended that an acoustic review be undertaken of any scheduled major equipment maintenance, upgrades of onsite noise sources or any proposed additional noise sources.

August 2016

Statement of Limitations

This report has been prepared in accordance with the agreement between Wyeth Nutritionals Ireland Ltd and Ossian Geraghty & Associates Ltd.

Within the limitations of the agreed upon scope of services, this work has been undertaken and performed in a professional manner, in accordance with generally accepted practices, using a degree of skill and care ordinarily exercised by members of its profession and consulting practice. No other warranty, expressed or implied, is made.

This report is solely for the use of Wyeth Nutritionals Ireland Ltd and any reliance on this report by third parties shall be at such party's sole risk and may not contain sufficient information for purposes of other parties or for other uses. This report shall only be presented in full and may not be used to support any other objective than those set out in the report, except where written approval with comments are provided by Ossian Geraghty & Associates Ltd.

IED Licence Noise Control Plan 2016

Wyeth Nutritionals Ireland Ltd

Askeaton, Co. Limerick

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1. Introduction

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The primary aim of this noise mitigation and control programme is to identify any noise source onsite that contributes to excessive noise at the noise sensitive locations, in excess of the noise limits set out in IED licence, ref no. P0395-03.

2. Objectives

The objectives of this assessment were to:

- determine the noise emissions from the various external noise sources onsite;
- record the octave spectra of the identified noise sources;
- undertake a subjective assessment of tonal and impulsive noise for each of the noise sources assessed;
- identify noise sources where mitigation or noise control may be required; and
- update the existing noise model for the site incorporating some additional noise sources.

3. Methodology

The survey methodology followed Environmental Protection Agency (EPA) Office of Environmental Enforcement (OEE) "Guidance Note for Noise: Licence Applications, Surveys and Assessments in Relation to Scheduled Activities", NG4, (January 2016), and ISO 1996 "Description and measurement of environmental noise".

The measurement duration at each noise source was of a sufficient duration to measure the average noise level. A summary of noise terminology is given in Appendix A.

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Noise measurements and reporting were undertaken by Ossian Geraghty BSc, MSc of Ossian Geraghty & Associates Ltd.

3.1 Measurement Details and Conditions

The survey condition and instrumentation used are detailed in Table 3. A Bruel & Kjaer 2250 Type 1 sound level meter was used, which measured broadband noise levels, noise level statistics, and real time third octave spectra. The meter was used for quantitative tonal analysis at the measurement positions. The sound level meter calibration was checked immediately before and after measurement using a Bruel & Kjaer 4231 Calibrator. Calibration Certificates are presented in Appendix B.

Table 3. Survey Conditions and Instrumentation Details, Wyeth Nutritionals Ireland Ltd				
Survey conditions				
Survey period & weather conditions	Tuesday 24 th May 2016 Dry and overcast some sunny spells – easterly breeze, 3-5 m/s, Temperature 11°C - 18°C			
	Tuesday 16 th August 2016 Dry and sunny, southeast breeze, 3-5 m/s, Temperature 16°C - 25°C.			
Plant operating conditions	The plant was operating normally throughout survey.			
Survey personnel	Ossian Geraghty BSc, MSc, Ossian Geraghty & Associates Ltd.			
Instrumentation details				
Manufacturer	Instrument	Calibrated by	Calibration Ref	Last Laboratory Calibration
Bruel & Kjaer	SLM 2250, Serial No. 2715356, with 1/2" FF 0V Class 1 Microphone s/n: 2703141 B&K ZC 0032 P, Pre-amplifier, s/n: 21292 and UA-1650 90mm windshield	Gracey & Associates	2015-0680 2015-0683 2015-0684	January 2016
Bruel & Kjaer	Calibrator 4231 Serial No. 2394083	Gracey & Associates	2016-0333	February 2016

4. Review of Noise Complaints

There were three complaints received between 1st June 2015 and 30th May 2016 in relation to noise from the site. In two of the cases an investigation found that the complaint was attributed to an abnormality that was quickly resolved through maintenance actions. The third complaint that was received in June 2015 was investigated and nothing was found that could be attributed to above normal noise levels and no action was taken. When the complainant was contacted to inform them of the results of the investigation, they said that the noise had stopped.

5. Noise Modelling

A noise model of the Wyeth Nutritional Ireland prepared in May 2016, was amended to include a number of new additional minor sources on-site, see Ion Acoustics Report A1014/R2, October 2016. The results of this modelling showed that these new sources have had a negligible impact on noise emissions from the site.

6. Results

6.1 Sound Pressure Levels at Noise Sources

The average sound pressure levels were determined at noise sources throughout the site. Detailed noise measurement results are presented in Appendix C.

6.2 Tonal and Impulsive Analysis

The Annual Noise Survey of Noise Sensitive Locations (NSLs), undertaken on the May 23rd and 24th 2016, did not detect any clearly audible tonal component in the noise at any of the measurement positions during daytime, evening or night-time measurements.

When undertaking the measurement of noise sources each of the noise source was assessed subjectively for tonal and impulsive noise. The measured noise levels were broadband in character at all the noise sources assessed. There were no clearly noticeable tones or impulsive sounds audible from noise sources at Wyeth Nutritionals Ireland Ltd. Measured noise octave spectra data is shown in Appendix C.

7. Discussion

The daytime, evening and night-time noise levels were compliant with the IED licence requirements for the site at all noise sensitive locations, OGA Report 764.

There was no clearly audible tonal or impulsive component in the noise at any of the noise sensitive locations positions, daytime, evening and night-time, OGA Report 764.

As no tonal or impulsive noise sources were detected at noise sensitive locations and the broadband noise is within IED Licence limits, no specific recommendations for noise reductions have been made.

A review of noise complaints was undertaken between 1st June 2015 and 30th May 2016 and did not indicate any on-going noise issue.

Any scheduled equipment upgrades or major maintenance work of site noise sources will undergo an acoustic review to determine the optimum noise control techniques.

8. Conclusion

The average sound pressure levels were determined and octave spectra measured from noise sources across the Wyeth Nutritionals site.

An assessment of tonal and impulsive noise was undertaken subjectively for each of the noise sources assessed, and no tonal or impulsive noise sources were detected.

The site was fully compliant with the noise limits in IED Licence P0395-03 for 2016, at all noise sensitive locations, see report OGA Ref 764. On this basis no specific noise sources have been selected for mitigation and control for 2016.

A number of additional minor noise sources have been measured and added to the noise model for the site. These have had a negligible overall noise impact at the Noise Sensitive Locations.

It is recommended that an acoustic review be undertaken of any scheduled major equipment maintenance, upgrades of onsite noise sources or any proposed additional noise sources.

IED Licence Noise Control Plan 2016
Wyeth Nutritionals Ireland Ltd
Askeaton, Co. Limerick
Appendix A: Noise Terminology

Noise Terminology

dB(A)	a logarithmic noise scale, called the decibel. The "A" indicates that a frequency weighting has been applied to take account of the variation in the sensitivity of the human ear as a function of frequency.
L_{Aeq}	the average noise level during the measurement period. It includes all noise events. The L _{Aeq} value has been found to correlate well with human tolerance of noise, and is the value normally used in setting and monitoring industrial noise limits.
L_{A90}	the noise level exceeded for 90% of the time. It is generally taken as being representative of the steady background noise at a location. It tends to exclude short events such as cars passing, dogs barking, aircraft flyovers etc., and provides a good estimation of steady plant noise, when there is significant interference from other noise sources.
L_{A10}	the noise level exceeded for 10% of the time, and is a measure of the higher noise levels present in the ambient noise.
L_{Amax}	The highest noise level during a specified time period or during a specified number of events expressed as the absolute maximum level of the root-meansquare (r.m.s.) sound pressure level using time weighting 'F'.
L_{AS}, L_{AF}	the live displayed noise level, updated at 1 second intervals, measured with the instrument's response time set to standardised "Slow" or "Fast" response. The live meter reading provides survey personnel with corroborative data for determining the noise level due to a specific audible sound source. The highest value measured is termed L _{Amax} , and the lowest level detected is termed L _{Amin} .
Total Noise	the overall noise level (L _{Aeq}), due to all noise noises (also termed ambient noise).
Specific Noise	a component of the total noise that can be quantified and attributed to a specific source.
Residual Noise	the noise level that would exist in the absence of the specific noise source
Noise Profile	noise level logged at short intervals (10 second intervals in this survey).

IED Licence Noise Control Plan 2016
Wyeth Nutritionals Ireland Ltd
Askeaton, Co. Limerick
Appendix B Certificates of Calibration

CERTIFICATE OF CALIBRATION

ISSUED BY Gracey & Associates BSI CERTIFICATE FS 25913
DATE OF ISSUE 05 February 2016 CERTIFICATE NUMBER 2015-0680
DATE OF CALIBRATION 19 January 2016
CALIBRATION INTERVAL 12 months PAGE 1 OF 1



Gracey & Associates
Barn Court Shelton Road
Upper Dean PE28 0NQ
Tel: 01234 708835
Fax: 01234 252332
www.gracey.com

TEST ENGINEER APPROVING SIGNATORY
Jamie Bishop Greg Rice

Equipment **B&K 2250, s/n: 2715356**
Description Hand Held Analyser, Bruel & Kjaer UK Limited
Customer Gracey & Associates

Standards

BS EN 60651 Class 1
BS EN 60804 Class 1

Conditions

Atmospheric Pressure 101.0 kPa
Temperature 20.1 °C
Relative Humidity 35.0 %

Calibration Reference Sources

Equipment	S/N	Last Cal	Equipment	S/N	Last Cal
Druck DPI 141	479	29-Oct-15	HP 34401	3146A16728	02-Nov-15
Vaisala HMP23	S2430007	04-Nov-15			

Notes

We certify that the above product was duly tested and found to be within the specification at the points measured (except where indicated). Measurements are traceable to UKAS reference sources from the UK National Physical Laboratory. Where no national or international standards exist, traceability is to standards maintained by the manufacturer. Our Quality Management System has been assessed to comply with BS EN ISO 9001:2008 - BSI Certificate number FS 25913. Tests were carried out in environmental conditions controlled to the extent appropriate to the instrument's specification. All relevant test certificates are available for inspection.

The uncertainties are for a confidence probability of not less than 95%.

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CERTIFICATE OF CALIBRATION

ISSUED BY Gracey & Associates BSI CERTIFICATE FS 25913
DATE OF ISSUE 05 February 2016 CERTIFICATE NUMBER 2015-0683
DATE OF CALIBRATION 15 January 2016
CALIBRATION INTERVAL 12 months PAGE 1 OF 2



Gracey & Associates
Barn Court Shelton Road
Upper Dean PE28 0NQ
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Fax: 01234 252332
www.gracey.com

TEST ENGINEER APPROVING SIGNATORY
Jamie Bishop Greg Rice

Equipment **B&K 4189, s/n: 2703141**
Description Microphone - 1/2" FF 0V, Bruel & Kjaer UK Limited
Customer Gracey & Associates

Standards
BS EN 61672 Class 1

Conditions
Atmospheric Pressure 101.4 kPa
Temperature 20.6 °C
Relative Humidity 35.0 %

Calibration Data

Sensitivity -26.90 dB

Calibration Reference Sources

Equipment	S/N	Last Cal	Equipment	S/N	Last Cal
B&K 4134 L	1935995	12-Mar-15	Druck DPI 141	479	29-Oct-15
HP 34401	3146A16728	02-Nov-15	Nor 1253	22456	12-Mar-15
Stanford DS36	33213	02-Nov-15	Vaisala HMP23	S2430007	04-Nov-15

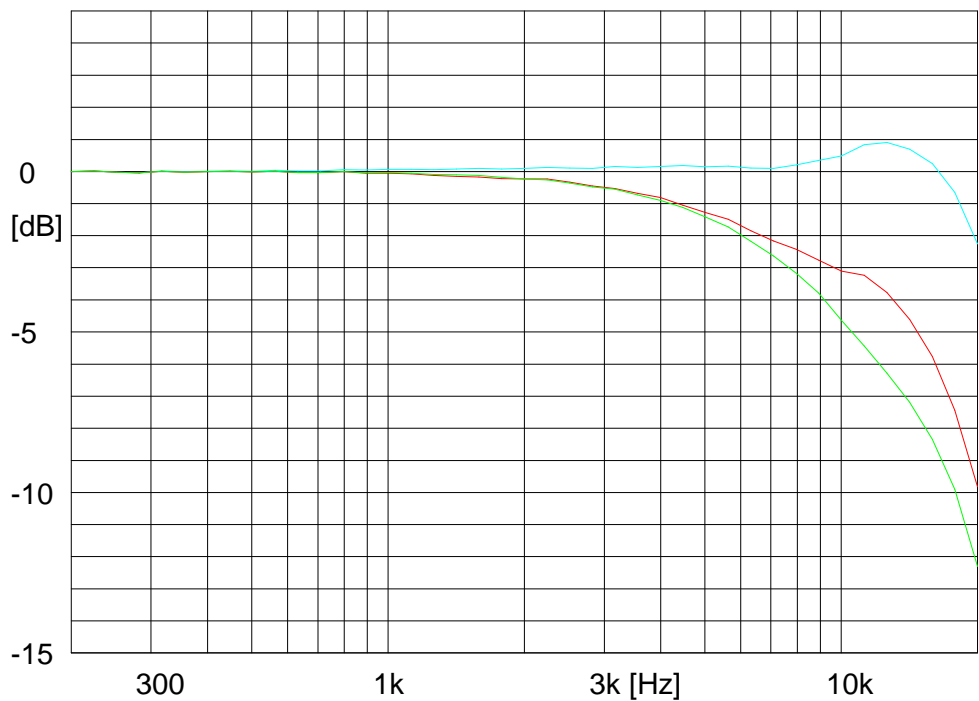
Notes

We certify that the above product was duly tested and found to be within the specification at the points measured (except where indicated). Measurements are traceable to UKAS reference sources from the UK National Physical Laboratory. Where no national or international standards exist, traceability is to standards maintained by the manufacturer. Our Quality Management System has been assessed to comply with BS EN ISO 9001:2008 - BSI Certificate number FS 25913. Tests were carried out in environmental conditions controlled to the extent appropriate to the instrument's specification. All relevant test certificates are available for inspection.

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Microphone Calibration Certificate



Bruel and Kjaer
Type: 4189

Serial no: 2703141

Sensitivity: 45.1 mV/Pa
-26.9 dB re. 1 V/Pa

Date: 15/01/2016

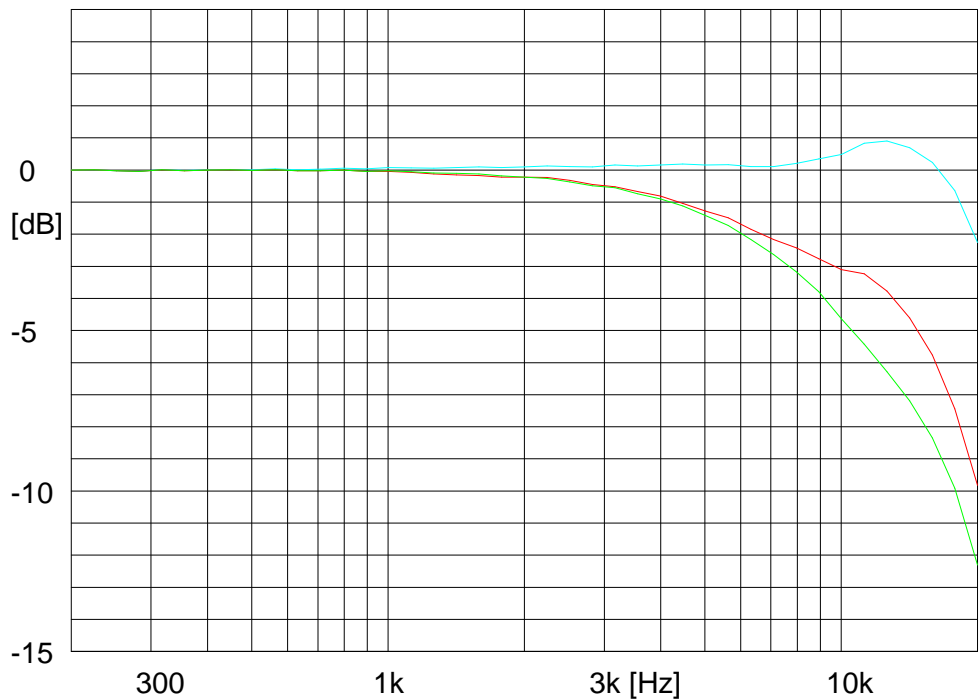
Signature:

Measurement conditions:
Polarisation voltage: 0.0 V
Pressure: 101.38 kPa
Temperature: 20.6 °C
Relative humidity: 35.0 %RH
Results are normalised to the reference conditions.

Free field response
Diffuse field response
Pressure (Actuator) response

Gracey & Associates
www.gracey.com

Microphone Calibration Certificate



Bruel and Kjaer
Type: 4189

Serial no: 2703141

Sensitivity: 45.1 mV/Pa
-26.9 dB re. 1 V/Pa

Date: 15/01/2016

Signature:

Measurement conditions:
Polarisation voltage: 0.0 V
Pressure: 101.38 kPa
Temperature: 20.6 °C
Relative humidity: 35.0 %RH
Results are normalised to the reference conditions.

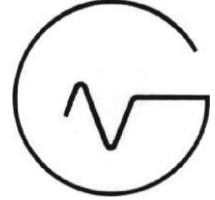
Free field response
Diffuse field response
Pressure (Actuator) response

Gracey & Associates
www.gracey.com

Comment:

CERTIFICATE OF CONFORMANCE

ISSUED BY Gracey & Associates BSI CERTIFICATE FS 25913
DATE OF ISSUE 05 February 2016 CERTIFICATE NUMBER 2015-0684
DATE OF CALIBRATION 18 January 2016
CALIBRATION INTERVAL 12 months PAGE 1 OF 1



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www.gracey.com

TEST ENGINEER APPROVING SIGNATORY
Jamie Bishop Greg Rice

Equipment **B&K ZC 0032, s/n: 21292**
Description Preamplifier - 2250, Bruel & Kjaer UK Limited
Customer Gracey & Associates

Standards
Manufacturer's Original Specifications

Conditions
Atmospheric Pressure 100.7 kPa
Temperature 20.8 °C
Relative Humidity 35.2 %

Calibration Reference Sources

Equipment	S/N	Last Cal	Equipment	S/N	Last Cal
Druck DPI 141	479	29-Oct-15	HP 34401	3146A16728	02-Nov-15
Vaisala HMP23	S2430007	04-Nov-15			

Notes

We certify that the above product was duly tested and found to be within the specification at the points measured (except where indicated). Measurements are traceable to UKAS reference sources from the UK National Physical Laboratory. Where no national or international standards exist, traceability is to standards maintained by the manufacturer. Our Quality Management System has been assessed to comply with BS EN ISO 9001:2008 - BSI Certificate number FS 25913. Tests were carried out in environmental conditions controlled to the extent appropriate to the instrument's specification. All relevant test certificates are available for inspection.

The uncertainties are for a confidence probability of not less than 95%.

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CERTIFICATE OF CALIBRATION

ISSUED BY Gracey & Associates BSI CERTIFICATE FS 25913
DATE OF ISSUE 19 April 2016 CERTIFICATE NUMBER 2016-0333
DATE OF CALIBRATION 25 February 2016
CALIBRATION INTERVAL 12 months PAGE 1 OF 2



Gracey & Associates
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TEST ENGINEER APPROVING SIGNATORY
Jamie Bishop Greg Rice

Equipment **B&K 4231, s/n: 2394083**
Description Calibrator - Acoustic - Class 1, Bruel & Kjaer UK Limited
Customer Gracey & Associates

Standards
BS EN 60942 Class 1

Conditions
Atmospheric Pressure 101.0 kPa
Temperature 20.3 °C
Relative Humidity 35.0 %

Calibration Data

Output Level 93.98 dB
Frequency 999.98 Hz

Calibration Reference Sources

Equipment	S/N	Last Cal	Equipment	S/N	Last Cal
B&K 4134 L	1935995	12-Mar-15	Druck DPI 141	479	29-Oct-15
HP 34401	3146A16728	02-Nov-15	Nor 1253	22456	12-Mar-15
Stanford DS36	33213	02-Nov-15	Vaisala HMP23	S2430007	04-Nov-15

Notes

We certify that the above product was duly tested and found to be within the specification at the points measured (except where indicated). Measurements are traceable to UKAS reference sources from the UK National Physical Laboratory. Where no national or international standards exist, traceability is to standards maintained by the manufacturer. Our Quality Management System has been assessed to comply with BS EN ISO 9001:2008 - BSI Certificate number FS 25913. Tests were carried out in environmental conditions controlled to the extent appropriate to the instrument's specification. All relevant test certificates are available for inspection.

The uncertainties are for a confidence probability of not less than 95%.

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Sound Calibrator Certificate



Calibrator: Bruel and Kjaer 4231

Serial no: 2394083

Level: 93.98 dB

Frequency: 999.98 Hz

The stated level is valid at reference conditions.

Frequency stability: 0.00 %

Measured according to IEC 60942.

The stated level is relative to 20 μ Pa.

All results quoted are directly traceable to the National Physical Laboratory, London with a calculated uncertainty less than 0.10 dB (2 \times sd).

Reference conditions:

Pressure: 101.325 kPa

Temperature: 23.0 $^{\circ}$ C

Relative humidity: 50 %RH

Measurement conditions:

Pressure: 100.98 kPa

Temperature: 20.3 $^{\circ}$ C

Relative humidity: 35 % RH

Date: 25/02/2016

Signature:

Sound Calibrator Certificate



Calibrator: Bruel and Kjaer 4231

Serial no: 2394083

Level: 93.98 dB

Frequency: 999.98 Hz

The stated level is valid at reference conditions.

Frequency stability: 0.00 %

Measured according to IEC 60942.

The stated level is relative to 20 μ Pa.

All results quoted are directly traceable to the National Physical Laboratory, London with a calculated uncertainty less than 0.10 dB (2 \times sd).

Reference conditions:

Pressure: 101.325 kPa

Temperature: 23.0 $^{\circ}$ C

Relative humidity: 50 %RH

Measurement conditions:

Pressure: 100.98 kPa

Temperature: 20.3 $^{\circ}$ C

Relative humidity: 35 % RH

Date: 25/02/2016

Signature:

Comment:

IED Licence Noise Control Plan 2016
Wyeth Nutritionals Ireland Ltd
Askeaton, Co. Limerick
Appendix C: Detailed Noise Measurement Results

August 2016

Table C.1 Detailed Noise Measurement Results, Wyeth Nutritionals Ireland Ltd, May & August 2016													
Source	Sound Pressure Level db(A)	Reference Distance ¹	Octave bands Sound Pressure Levels (dB)									Impulsive or Tonal Qualities	Periods of Emission
			32	63	125	250	500	1k	2k	4k	8k		
Drier 5 ²	82.8	5 Meters	88.6	91.8	94.1	87.1	80.1	71.0	63.3	52.7	43.0	None detected	Variable
Drier 4 ²	90.6	5 Meters	100	95.9	94.9	95.5	90.5	79.0	67.9	57.6	52.9	None detected	Variable
Drier 3	88.4	5 Meters	84.9	87.8	87.1	90.7	86.5	79.4	71.9	73.1	83	None detected	Variable
Drier 1	94.5	2 Meters	97.4	93.1	95.3	94.5	93.0	90.2	82.5	77.9	73.1	None detected	Variable
Drier Tower 5 Vents	62.6	5 Meters	72.7	73.1	70.6	67.2	57.7	52.1	51.1	52	48.3	None detected	Variable
Vent at base of stairs to drier towers	68.9	5 Meters	73.4	71.7	66.0	66.0	65.0	62.4	63.7	58.2	53.4	None detected	Continuous
AHU 27	70.5	2 Meters	76.4	73.1	72.7	74.7	68.6	64.5	59.7	52.5	45.9	None detected	Continuous
AHU 262	74.4	1 Meter	76.3	76.5	86.9	75.1	71.0	67.9	64.2	51.2	48.8	None detected	Continuous
AHU 22	81.7	3 Meters	80.7	81.9	81.8	81.3	78.3	78.6	71.9	65.1	55.4	None detected	Continuous
AHU 20	71.2	2 Meters	81.3	78.1	77.5	75.0	74.5	75.7	72.3	63.5	53.6	None detected	Continuous
AHU 21 ²	73.0	3 Meters	74.7	73.1	79.6	73.8	68.1	67.6	64.6	59.7	56.7	None detected	Continuous
Can Plant NE Stack	76.8	1 Meter	77.4	75.8	74.6	73.5	73.0	70.2	72.0	64.1	59.2	None detected	Continuous

Continued on next page

August 2016

Table C.1 Detailed Noise Measurement Results, Wyeth Nutritionals Ireland Ltd, May & August 2016													
Source	Sound Pressure Level db(A)	Reference Distance ¹	Octave bands Sound Pressure Levels (dB)									Impulsive or Tonal Qualities	Periods of Emission
			32	63	125	250	500	1k	2k	4k	8k		
<i>Continued from previous page</i>													
Can Plant SW Stack	74.5	1 Meter	77.9	78.1	78.4	73.4	69.5	69.9	67.6	60.0	55.3	None detected	Continuous
Can Plant NW Stack	75.7	1 Meter	81.8	79.3	76.5	74.7	71.9	67.7	69.8	60.9	57.9	None detected	Continuous
Can Plant SE Stack	81.2	0.5 Meter	81.3	78.1	77.5	75	74.5	75.7	72.3	63.5	53.6	None detected	Continuous
Can Plant Tall Narrow Stack	77.5	1 Meters	78.6	77.1	79.8	75.6	72.6	72.8	71.6	60.8	52.1	None detected	Continuous
Beside AHU 19 Arrow style stack	77.6	3 Meters	77.6	74.0	70.4	80.8	75.2	72.3	67.1	60.3	53.9	None detected	Continuous
AHU 18/19 ²	85.8	0.5 Meters	83.4	81.1	83.1	89.1	82	80.9	76.8	71.3	64.3	None detected	Continuous
OHIO	77.9	5 Meters	83.7	81.9	86.4	80.8	73.6	73.2	66.9	61.7	53.0	None detected	Variable
Evaporator 5	90.6	1 Meter	86.9	95.4	93.6	88.8	90.1	84.7	81.0	76.0	70.4	None detected	Variable
Evaporator 4	86.4	1 Meter	77.3	80.4	87.5	86.9	84.3	80.6	77.8	71.3	68.1	None detected	Variable
Process 2 Cooler	79.8	1 Meter	75.9	80.2	78.8	76.0	74.6	73.5	73.0	71.4	69.5	None detected	Variable
Evaporator 1 & 2	90.6	1 Meter	71.7	74.6	82.5	90.3	88.5	86.4	82.3	75.6	68.3	None detected	Variable
<i>Continued on next page</i>													

August 2016

Table C.1 Detailed Noise Measurement Results, Wyeth Nutritionals Ireland Ltd, May & August 2016													
Source	Sound Pressure Level db(A)	Reference Distance ¹	Octave bands Sound Pressure Levels (dB)									Impulsive or Tonal Qualities	Periods of Emission
			32	63	125	250	500	1k	2k	4k	8k		
<i>Continued from previous page</i>													
Process 2X Evaporator	92.9	1 Meter	83.1	92.2	94.3	94.5	91.5	87.8	81.7	77.1	74.5	None detected	Variable
Process 3 Evaporator ²	91.6	1 Meter	91.7	92.7	89.9	92.2	91.2	85.8	79.7	76.5	76.3	None detected	Variable
Process 1 Cooler	94.8	1 Meter	75.9	82.1	84.3	90.6	93.2	91.6	84.4	79.3	73.5	None detected	Variable
SBU1 Recirculation Pump	81.9	1 Meter	83.2	83.9	81.9	78.9	76.7	76.1	76.1	71.5	67.6	None detected	Variable
Evaporator 3	85.6	1 Meter	78.3	88.3	88.3	88.9	87.1	86.3	79.3	74.7	69.7	None detected	Variable
Cooling Tower 1	79.5	2 Meters	84.6	92.5	86.9	80.7	78.4	73.0	66.4	61.0	55.0	None detected	Variable
Cooling Tower 2	79.4	2 Meters	77.6	79.4	76.5	75.6	73.4	72.4	72.0	72.9	69.7	None detected	Variable
Cooling Tower 3	79.4	4 Meters	77.5	79.3	76.5	75.5	73.4	72.3	71.9	72.9	69.7	None detected	Variable
Boilerhouse Louvre Between CT2 & CT3	77.1	1 Meter	80.3	83.2	82.2	77.8	75.3	71.3	67.3	61.3	57.0	None detected	Variable
Steam Release Stack Boilerhouse Roof	77.6	1 Meter	80.1	83.0	80.0	78.5	76.6	72.4	65.5	61.6	58.5	None detected	Intermittent
<i>Continued on next page</i>													

August 2016

Table C.1 Detailed Noise Measurement Results, Wyeth Nutritionals Ireland Ltd, May & August 2016													
Source	Sound Pressure Level db(A)	Reference Distance ¹	Octave bands Sound Pressure Levels (dB)									Impulsive or Tonal Qualities	Periods of Emission
			32	63	125	250	500	1k	2k	4k	8k		
<i>Continued from previous page</i>													
Boiler house East Side Louvres	65.7	2 Meters	73.8	71.6	68.2	66.6	63.3	59.0	56.3	54.7	54.3	None detected	Intermittent
Boiler house East	66.3	10 Meters	76.1	73.4	68.4	67.4	63.9	59.9	56.8	55.6	53.9	None detected	Continuous
Boilerhouse West Side – 4 Pumps 3 on	79.7	0.5 Meters	79.4	78.8	78.2	77.1	78.8	74.2	69.4	68.6	60.8	None detected	Continuous
Boiler house west side, 7 pumps, 6 on	84.1	1 Meter	75.1	82.5	79.0	78.9	80.5	78.5	76.0	77.0	67.8	None detected	Continuous
CHP Plant East Side	71.0	5 Meters	81.1	76.4	69.9	65.0	61.6	67.6	61.7	61.9	62.3	None detected	Continuous
CHP Plant West Side	67.6	5 Meters	76.9	75.4	68.6	67.1	63.0	63.4	57.6	57.1	56.1	None detected	Continuous
RTF Watermiser No 948 NE Corner	90.7	2 Meters	76.9	76.9	79.4	82.9	86.7	86.5	81.1	75.0	71.0	None detected	Variable
RTF Watermiser No 1140 NE Corner	91.4	1 Meter	77.1	88.0	87.0	87.7	90.9	86.9	80.8	77.3	76.6	None detected	Variable
RTF (Fans on wall East Side)	67.6	6 Meters	65.9	64.3	68.5	73.1	63.9	60.1	58.9	52.4	45.0	None detected	Continuous
Laboratory Stacks	76.5	1 Meter	78.4	75.5	77.4	77.5	73.5	70.8	68.0	63.9	60.2	None detected	Continuous
<i>Continued on next page</i>													

August 2016

Table C.1 Detailed Noise Measurement Results, Wyeth Nutritionals Ireland Ltd, May & August 2016													
Source	Sound Pressure Level db(A)	Reference Distance ¹	Octave bands Sound Pressure Levels (dB)									Impulsive or Tonal Qualities	Periods of Emission
			32	63	125	250	500	1k	2k	4k	8k		
<i>Continued from previous page</i>													
AHU16	82.1	1 Meter	81.5	85.2	83.2	78.9	79.3	77.9	73.8	69.2	62.2	None detected	Continuous
AHU9	71.6	1 Meter	72.0	80.6	74.4	68.3	73.9	62.1	58.0	57.8	46.7	None detected	Continuous
AHU10	71.3	1 Meter	71.6	78.7	73.9	70.6	64.8	66.1	64.6	62.4	50.9	None detected	Continuous
AHU11	69.5	1 Meter	75.3	84.5	77.5	69.8	65.0	63.5	60.0	58.8	48.7	None detected	Continuous
AHU15	72.4	1 Meter	75.3	81.2	74.2	70.4	69.1	67.4	65.2	62.5	53.3	None detected	Continuous
AHU14	69.8	1 Meter	73.9	78.1	71.3	67.6	66.5	65.3	61.8	58.6	50.6	None detected	Continuous
AHU8	69.5	2 Meters	75.3	84.5	77.5	69.8	65.0	63.5	60.0	58.8	48.7	None detected	Continuous
AHU101	82.2	1 Meter	81.2	82.3	84.6	83.6	79.1	78.2	71.6	67.1	60.4	None detected	Continuous
AHU102	71.7	1 Meter	75.2	78.3	76.0	73.9	68.9	66.3	61.1	60.3	49.9	None detected	Continuous
AHU13	78.3	1 Meter	78.3	80.4	79.3	80.0	75.2	74.8	67.5	60.7	55.8	None detected	Continuous
AHU17	71.1	1 Meter	70.9	75.5	71.4	69.0	66.0	67.9	63.1	58.7	50.1	None detected	Continuous
<i>Continued on next page</i>													

August 2016

Table C.1 Detailed Noise Measurement Results, Wyeth Nutritionals Ireland Ltd, May & August 2016													
Source	Sound Pressure Level db(A)	Reference Distance ¹	Octave bands Sound Pressure Levels (dB)									Impulsive or Tonal Qualities	Periods of Emission
			32	63	125	250	500	1k	2k	4k	8k		
<i>Continued from previous page</i>													
Treated Effluent Buffer Tank Pump RHS	75.0	1 Meter	66.3	63.9	63.1	62.6	65.7	71.1	70.1	62.6	58.9	None detected	Variable
Treated Effluent Buffer Tank Pump LHS ²	78.4	1 Meter	76.4	72.5	68.2	66.9	69.6	72.5	74.4	66.3	59.7	None detected	Variable
Raw Effluent Tank Pump SW Side	74.8	5 Meters	71.2	68.3	67.1	67.8	71.0	71.0	68.0	60.7	53.9	None detected	Continuous
Raw Effluent Tank Pump NW Side ²	75.3	1 Meter	77.3	67.9	65.0	67.2	70.8	70.9	68.6	65.7	60.2	None detected	Continuous
Raw Effluent Tank Pump NE Side ²	79.7	1 Meter	79.8	68.1	65.9	75.5	75.7	77.4	70.1	65.0	57.7	None detected	Continuous
SBR Tank 1 Recirc Pump 1 ²	78.0	1 Meter	66.7	69.0	69.4	78.1	71.8	68.7	67.4	64.2	56.0	None detected	Variable
SBR Tank 1 Recirc Pump 2 ²	76.1	1 Meter	66.2	70.2	67.5	75.0	71.3	69.8	69.4	67.2	57.5	None detected	Variable
SBR Tank 2 Recirc Pump 1	78.1	1 Meter	64.3	66.5	66.4	71.8	69.7	70.2	74.9	67.0	61.6	None detected	Variable
SBR Tank 2 Recirc Pump 2	77.1	1 Meter	67.6	66.9	66.9	73.9	71.5	71.3	71.7	67.1	58.2	None detected	Variable
WWTP Blower Pump 03-FN-213	80.6	1 Meter	68.0	68.2	72.1	82.0	75.4	73.0	74.2	69.3	60.8	None detected	Variable
<i>Continued on next page</i>													

August 2016

Table C.1 Detailed Noise Measurement Results, Wyeth Nutritionals Ireland Ltd, May & August 2016													
Source	Sound Pressure Level db(A)	Reference Distance ¹	Octave bands Sound Pressure Levels (dB)									Impulsive or Tonal Qualities	Periods of Emission
			32	63	125	250	500	1k	2k	4k	8k		
<i>Continued from previous page</i>													
WWTP Blower Pump 03-FN-215	79.4	1 Meter	66.8	70.0	78.0	80.7	74.9	70.9	72.1	69.2	66.7	None detected	Variable
New Sources													
AHU 31	66.7	2 Meters	72.4	75.6	74.6	68.2	64.3	60.2	57.0	52.8	44.1	None detected	Continuous
AHU 28	76.1	2 Meters	85.1	86.3	84.4	79.7	73.8	68.8	62.3	56.5	50.7	None detected	Continuous
New Source beside boiler house	85.8	2 Meters	75.1	88.6	89.4	87.2	83.7	80.2	76.8	72.2	65.2	None detected	Variable
New Canning Line (Line 3)													
Louvres 2mx3m	69.7	5 Meters	71.3	69.8	67.1	73	66.4	65.2	56	47.7	40.7	None detected	Continuous
Louvres 3mx1.5m	62.8	5 Meters	68.8	66.8	63.8	65.7	61.3	56.6	49.9	43.6	41.5	None detected	Continuous
Louvres 2mx3m	64.6	5 Meters	65.4	61.4	63.3	66.5	63	59.5	52.3	45	45.4	None detected	Continuous
Louvres 2mx3m	58.4	5 Meters	69.5	68	65.1	59.8	54.3	51.5	49.1	48.1	44.7	None detected	Continuous
Louvres 1mx2m	70.8	5 Meters	68.9	65.2	62.4	68.6	67.1	68.9	59.2	49	43	None detected	Continuous
Louvres 2mx2m	61.6	5 Meters	66.8	66.2	62.6	60.6	58.6	57.3	53	45.3	46.5	None detected	Continuous

 Notes. ¹Distance between the measurement source and the microphone-²Source not operating at time of the survey, previous data reported, May 2015.

Table C.2 Noise Abatement, Wyeth Nutritionals Ireland Ltd, May/August 2016

Source	Noise Control/Abatement	Max SPL (dB)
Drier 5	n/a	88
Drier 4	n/a	91
Drier 3	INVC's Quiet Fan Technology	90
Drier 1	n/a	100
Drier Tower 5 Vents	n/a	80
Vent at base of stairs to drier towers	n/a	78
AHU 27	n/a	84
AHU 26	n/a	84
AHU 22	n/a	90
AHU 20	n/a	81
AHU 21	n/a	83
Can Plant NE Stack	n/a	87
Can Plant SW Stack	n/a	83
Can Plant NW Stack	n/a	81
Can Plant SE Stack	n/a	91
Can Plant Tall Narrow Stack	n/a	89
Beside AHU 19 Arrow style stack	n/a	100
AHU 18/19	n/a	96
OHIO	n/a	83
Evaporator 5	Screening	100

Continued on next page

Table C.2 Noise Abatement, Wyeth Nutritionals Ireland Ltd, May/August 2016

Source	Noise Control/Abatement	Max SPL (dB)
<i>continued from previous page</i>		
Evaporator 4	Screening	97
Process 2 Cooler	Screening	90
Evaporator 1 & 2	Screening	99
Process 2X Evaporator	Screening	98
Process 1 Cooler	Screening	100
Process 3 Evaporator	Screening	97
SBU1 Recirculation Pump	Screening	87
Evaporator 3	Screening	99
Cooling Tower 1	n/a	87
Cooling Tower 2	n/a	86
Cooling Tower 3	n/a	91
Boilerhouse Stack	n/a	100
Boilerhouse Louvre Between CT2 & CT3	n/a	89
Steam Release Stack Boilerhouse Roof	n/a	94
Boiler house East Side Louvres	n/a	78
Boilerhouse West Side	n/a	89
Boiler house west side	n/a	93
CHP Stack	n/a	100
<i>Continued on next page</i>		

Table C.2 Noise Abatement, Wyeth Nutritionals Ireland Ltd, May/August 2016

Source	Noise Control/Abatement	Max SPL (dB)
<i>continued from previous page</i>		
CHP Plant East Side	n/a	80
CHP Plant West Side	n/a	80
RTF Watermiser No 948 NE Corner	n/a	96
RTF Watermiser No 1140 NE Corner	n/a	100
RTF (Fans on wall East Side)	n/a	78
Laboratory Stacks	n/a	87
AHU16	n/a	98
AHU9	n/a	83
AHU10	n/a	80
AHU11	n/a	87
AHU15	n/a	82
AHU14	n/a	81
AHU8	n/a	87
AHU101	n/a	87
AHU102	n/a	87
AHU13	n/a	90
AHU17	n/a	86
Treated Effluent Buffer Tank Pump RHS	n/a	87
<i>Continued on next page</i>		

Table C.2 Noise Abatement, Wyeth Nutritionals Ireland Ltd, May/August 2016

Source	Noise Control/Abatement	Max SPL (dB)
<i>continued from previous page</i>		
Treated Effluent Buffer Tank Pump LHS	n/a	88
Raw Effluent Tank Pump SW Side	n/a	89
Raw Effluent Tank Pump NW Side	n/a	85
Raw Effluent Tank Pump NE Side	n/a	90
SBR Tank 1 Recirc Pump 1	n/a	88
SBR Tank 1 Recirc Pump 2	n/a	86
SBR Tank 2 Recirc Pump 1 ¹	n/a	-
SBR Tank 2 Recirc Pump 2 ¹	n/a	-
WWTP Blower Pump 03-FN-208 ¹	Acoustic Enclosure	-
WWTP Blower Pump 03-FN-211 ¹	Acoustic Enclosure	-
WWTP Blower Pump 03-FN-213	Acoustic Enclosure	92
WWTP Blower Pump 03-FN-215	Acoustic Enclosure	87
AHU 31	n/a	77
AHU 28	n/a	86
New Source beside boilerhouse	n/a	96
Canning Line 3 Plant Rooms		
Louvres 2mx3m	n/a	80
Louvres 3mx1.5m	n/a	73
Louvres 2mx3m	n/a	75
<i>Continued on next page</i>		

Table C.2 Noise Abatement, Wyeth Nutritionals Ireland Ltd, May/August 2016

Source	Noise Control/Abatement	Max SPL (dB)
<i>continued from previous page</i>		
Louvres 2mx3m	<i>n/a</i>	68
Louvres 1mx2m	<i>n/a</i>	81
Louvres 2mx2m	<i>n/a</i>	72

Note: All noise measurements were undertaken post abatement. 1 Not measured, assumed to be similar to adjoining pumps.

NOTES

Noise controls on existing equipment:

- Acoustic enclosures, mufflers on exhausts and insulated ducting on the blowers in the wastewater treatment plant.
- Screening at the cooling towers on the boiler house roof.
- Mufflers fitted on the vacuum pump exhausts for lines 2, 3 and 4.
- An acoustic panel on the plant room wall for the intermediate hoppers.
INVC's Quiet Fan Technology fitted to Drier 3 Exhaust Fan.