



DAWN PORK AND BACON

Dawn Pork and Bacon Annual Environmental Report
2016

Licence Registration No. PO 175-02

Issued By: Sinead Moroney Date: 31st March 2017
Environmental Technician

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1.0

Introduction

This is the 17th Annual Environmental Report (AER) which covers the environmental performance at Queally Pig Slaughtering Ltd.

1.1

Site Details

Licence Register Number: PO175-02

Name of Site: Queally Pig Slaughtering T/A Dawn Pork and Bacon

Class of Activity: 7.4.1 Operation of a slaughterhouse with a carcass production greater than 50 tonnes per day

RBME Risk Category: B3

National Grid Reference: 656853, 614430

Site Location: The facility at Grannagh is located on a site of approximately 30 acres on the main Waterford to Limerick road, approximately 4 miles outside Waterford City.

The River Suir is located to the east of the plant and runs into Waterford Harbour.

1.2

Summary of Data

The licence annual reporting requires the submission of a completed pollution release and waste transfer (PRTR) workbook. This relates to the amount of pollutant released to the air, water, wastewater or sewers and the transfer of waste offsite.

The data was submitted electronically to the EPA. It is also under appendix 5 of this report.

1.3

Company Profile

Dawn Pork and Bacon has its origins with the Queally Group. Part of the group's original activities included the production of live pigs and in 1986 the group decided to introduce a natural flow to the group's activities by slaughtering and processing its own pigs, therefore maximising the group's potential.

A new purpose built factory was constructed at Grannagh close to Waterford City. This facility would eventually house what is now Dawn Pork and Bacon. The factory is comprised of 10,125 square metres containing one of the most modern and technically efficient pork processing plants in Europe.

Dawn Pork and Bacon has evolved and progressed its activities at a rapid pace since its inception in 1986. It has established its factory, trained its staff, produced and marketed a quality product while remaining a profitable enterprise throughout this time. In 1995, a new de-boning, packing and storage facility adjacent to the existing premises was added to the site. This expansion along with alterations to some of the existing facilities allowed the company to increase its slaughtering, deboning and trimming throughout.

The factory currently has a slaughter capacity of 10,000 pigs over a 39 hour working shift and the capacity of deboning 9,000 pigs over the same shift. The factory has close links with the group's farming enterprises which currently provide the factory with approximately 2,000 pigs each week.

The current workforce including management, administration, maintenance and production staff is 299 people. Markets served by Dawn Pork and Bacon include mainland Europe, Japan, Korea, USA, Australia and the Irish domestic market.

The operation consists of slaughtering, primal cutting, de-boning, trimming, curing, packing and freezing. The plant is both EU and USDA approved.

Dawn Pork and Bacon recognise that in order to preserve natural resources for generations to come, the food industry needs to ensure that sustainable practices are implemented. This began a few years ago, and the company is committed to continuing these efforts under the Bord Bia Origin Green programme. This provides the essential framework to gather the company's sustainability efforts.

As Dawn Pork and Bacon is a major processor of pig meat in Ireland, we aim to conduct our business in a responsible and sustainable manner. This involves certain approaches to business activities including close liaison with customers, suppliers, regulatory authorities, employees and other relevant stakeholders.

As a family run business, Dawn Pork and Bacon believes in providing a safe and positive environment for the workers. The company also aims to contribute to the local community.

The Origin Green Team and Management at Dawn Pork and Bacon have developed a sustainability plan which has 4 main strategic challenges:

- Sourcing of raw materials: Maintain 100% sourcing of Bord Bia Quality Assured pigs
- Manufacturing Processes: This area targets energy, water, organic waste, wastewater and emissions. Reduction targets have been put in place.
- Development of ISO14001.
- Social Sustainability: Community related such as job sustainability and sponsorship, career development of present employees and employee health and wellbeing.

2.0 Environmental Management System

2.1

Environmental Management System Documentation

Document	Present	Comment
Onsite EMS	Yes	<ul style="list-style-type: none">• Includes environmental manual, operating manual for the laboratory and effluent plant, system procedures and records.• Available for site inspections
Environmental aspects and associated impacts	Yes	Available for site inspections
Public viewing of records	Yes	Available for site inspections
Sustainability, environmental and energy policy	Yes	Available for site inspections
Objectives and targets	Yes	Summary of 2017 Environmental Objectives and Targets are included in this annual environmental report (Section 2.3)
Daily/ Weekly/ Monthly Monitoring Results	Yes	Available for site inspections
External lab report for 2016 ground water monitoring	Yes	Available for site inspections
Waste Records	Yes	Available for site inspections
Training Records	Yes	Available for site inspections
Organisational Chart	Yes	Available for site inspections
Bund and Pipeline Integrity Report 2016	Yes	Available for site inspections
2016 Boiler Efficiency Report	Yes	Available for site inspections
Noise Survey 2016	Yes	Available for site inspections
Energy Efficiency Audit Report 2016	Yes	Available for site inspections
Impact on Shellfish Study	Yes	Available for site inspections

The following is a report on the progress achieved in the objectives and targets which were set for 2016.

- Ensure underground pipelines are intact.
Status: Completed in July 2016.
- Bund Integrity Testing.
Status: Completed in July 2016.
- Reduce the hydraulic loading to the effluent plant in order to make improvements where possible.
Status: Ongoing.
- Reduce the biological loading to the effluent plant, analysis of waste streams to find out where improvements can be made.
Status: Ongoing
- Monthly / Quarterly surface water monitoring to ensure there is no onsite contamination.
Status: Completed.
- Waste contractors and transport companies – Review of licences.
Status: Completed.
- Complete groundwater analysis to ensure there is no onsite contamination to groundwater.
Status: Completed in September 2016.
- Equipment calibration to ensure all WWTP probes are accurate.
Status: Completed in January 2016.
- Preparation of PRTR data and submission to the EPA.
Status: Completed in March 2016.
- Overground pipeline- Weekly inspection programme of flanges and valves on over ground pipelines.
Status: Completed.
- Improve operational controls of the biofilter in the WWTP and maximise efficiency and improve the odours onsite.
Status: Ongoing.
- Boiler efficiency testing to ensure optimum efficiency of the boilers onsite and eliminating contaminated air emissions.
Status: Completed in April 2016.

- Reduce the organic waste produced in the WWTP by improving the belt press operation.
Status: Ongoing
- Continue to reduce the water usage onsite
Status: Ongoing
- Continue to reduce the energy usage onsite
Status: Ongoing
- Conduct an energy efficiency audit
Status: Completed in October 2016.
- Conduct a noise survey
Status: Completed in July 2016.
- Implement ISO14001.
Status: Stage 1 gap analysis completed in February 2017.
Stage 2 of certification process set for July 2017.

2.3

Dawn Pork and Bacon Objectives and Targets 2017.

DAWN PORK AND BACON ENVIRONMENTAL OBJECTIVES AND TARGETS 2017



DAWN PORK AND BACON

Issued by: *Sinead Moroney*
Sinead Moroney

DATE: 14.03.2017

Approved by: *Joanne Day*
Joanne Day

DATE: 14.03.2017

REV: 04

REF: DERC 17

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1. Storm water /Groundwater

Number	Objective	Target	Completion Date	Frequency	Responsibility	Indicator	EVP Reference
1.	To ensure monthly and quarterly surface water monitoring is carried out as outlined on the IPPC licence	To comply with surface water testing requirements and action limits	Monthly & Quarterly Review	Monthly & Quarterly	Environmental Technician	Lab Record External Laboratory Report	EVP 29
2.	To carry out analysis of groundwater so as to ensure that processes onsite do not contaminate groundwater	To ensure that groundwater is tested for the parameters outlined on the licence and is compliant	September 2017	Annual	Environmental Technician	External Laboratory Report	EVP 17
3.	Inspection of flanges and valves on over ground pipelines	To ensure that all materials are intact and in working order i.e. no leaks	Weekly	Weekly	Environmental Manager	DERC 34	EVP 19

DAWN PORK AND BACON ENVIRONMENTAL OBJECTIVES AND TARGETS 2017



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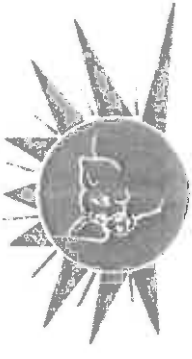
REF: DERC 17

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2. Waste Water /Effluent

Number	Objective	Target	Completion Date	Frequency	Annual Progress	Responsibility	Indicator	EVP Reference
1.	To reduce the level of COD loading to the effluent plant	To reduce the COD loading to the River Suir by 40% by 2020 Base year 2010 (10 year plan)	2020	Ongoing review of results	2017 2018 2019 2020 % reduction	Environmental Manager	Laboratory Reports PRTR Report	EVP 4
2.	To reduce the level of BOD loading to the effluent plant	To reduce the BOD loading to the River Suir by 40% by 2020 Base year 2010 (10 year plan)	2020	Ongoing review of results	2017 2018 2019 2020 % reduction	Environmental Manager	Laboratory Reports PRTR Report	EVP 4
3.	To reduce the level of organic waste produced in the waste water treatment plant	To reduce the organic waste produced in the effluent plant by 40% by 2019 Base year 2009 (10 year plan)	2019	Ongoing review of results	2017 2018 2019 % reduction	Maintenance Manager	Weightbridge Receipts	EVP 24

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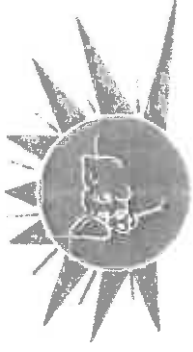
3. Chemical Use / Storage

Number	Objective	Target	Completion Date	Frequency	Responsibility	Indicator	EVP Reference
1.	To ensure that all bunds onsite are fully intact	Bund integrity testing to be carried out by an external contractor	2019	Every 3 years	Contractor	Contractor Report	EVP 44

4. Solid Waste Generation and Disposal

Number	Objective	Target	Completion Date	Frequency	Responsibility	Indicator	EVP Reference
1.	Review of licences for waste contractors and transport companies	To ensure that all waste contractors and transport companies have the required licence and are disposing of the waste appropriately	2017	Annually	Environmental Manager	Approved Licences Waste Receipts	EVP 25

DAWN PORK AND BACON ENVIRONMENTAL OBJECTIVES AND TARGETS 2017



DAWN PORK AND BACON

Issued by: *Sinead Moroney*
 Approved by: *Joanne Day*

DATE: 14.03.2017

DATE: 14.03.2017

REV: 04
 REF: DERC 17

5. Water Consumption

Number	Objective	Target	Completion Date	Frequency	Annual Progress	Responsibility	Indicator	EVP Reference
1.	To continue to reduce the water usage onsite	To reduce the water consumption by 45% per tonne of carcass produced by 2019 Base year 2009 (10 year plan)	2019	Ongoing review of results	2017 2018 2019 % reduction	Maintenance Manager	Utilities Database	EVP 34

6. Energy Consumption

Number	Objective	Target	Completion Date	Frequency	Annual Progress	Responsibility	Indicator	EVP Reference
1.	To continue to reduce the energy usage onsite	To reduce energy consumption by 50% per tonne of carcass produced by 2019 Base year 2009 (10 year plan)	2019	Ongoing review of results	2017 2018 2019 % reduction	Maintenance Manager	Utilities Database	EVP 33

3.0 Emissions to Water Summary

3.1

Emissions to Water EW1

Environmental monitoring data for January to December 2015 are summarised in the table below. Dawn Meats and Dawn Pork and Bacon effluent are fed into the waste water treatment plant. Waste from both sites undergo a screening process and the waste is pumped through the rest of the waste water treatment plant. The treated waste water is then discharged into the River Suir.

Emissions to Water (EW1)

Parameter	Licence ELV	ELV Kg/Year	Kg/Year 2014	Kg/Year 2015	Kg/Year 2016
pH	6-9	-	-	-	-
Temperature	25°C	-	-	-	-
COD	100mg/l	65,700	26,577	29,562	23,788
BOD	40mg/l	26,280	2,872	3,128	3,528
Suspended Solids	60mg/l	39,420	5,101	4,656	3,280
Total Nitrogen (as N)	25mg/l	16,425	4,736	5,614	4,376
Total Ammonia (as NH3)	10mg/l	6,570	1,542	1,064	610.96
Total Phosphorus	2mg/l	1,314	306.19	236.81	293.41
Orthophosphate	1mg/l	657	246.96	214.31	220.18
Detergents	5mg/l	3,285	163.07	137.08	131.30
Fats, Oils and Grease	15mg/l	9,855	1358.29	2014.08	1236.91
Total Emissions		169,506	42,902.51	46,628.7	37,467.15

Note: Although in some cases the kilograms of emissions discharged to the River Suir are higher for some parameters and lower for others than in 2015, there is a direct correlation with a difference in kill numbers.

3.2

Emissions to Surface Water Discharge EW3

Parameter	Unit of Measurement	Monitoring Frequency	2014	2015	2016
pH	Units	Monthly	-	-	-
Conductivity	mS/cm	Continuous	-	-	-
COD	mg/l	Monthly	26.16	25.83	21.83
Suspended Solids	mg/l	Quarterly	6.02	1.45	0.725
Total Ammonia	mg/l	Quarterly	1.77	0.36	0.267
Fats, Oils and Grease	mg/l	Quarterly	11.7	<1	<1
Chloride	mg/l	Quarterly	12.5	9.31	3.425
Visual Inspection	-	Daily	Clear	Clear	Clear

3.3

Groundwater Analysis

Parameter	Unit of Measurement	Monitoring Frequency	2014	2015	2016
pH	Units	Annually	7.7	7.3	7.3
TOC	mg/l	Annually	7.3	1.2	<0.25
Nitrate	mg/l as N	Annually	3.7	6.7	27.9
Conductivity	uS/cm	Annually	149	1279	1525
Phosphorus	mg/l P	Annually	0.47	<0.1	0.09
Total Nitrogen	mg/l N	Annually	3.8	9.9	6.5
Orthophosphate	mg/l P	Annually	<0.05	<0.02	<0.03

4.0 Waste Management

Disposal of hazardous and non-hazardous waste is recorded in accordance with the conditions of the licence.

4.1

Waste removed off site for recovery

Waste Category	EWC	Tonnage per year 2014	Tonnage per year 2015	Tonnage per year 2016
Organic Waste from WWTP	020204	6,366.46	5,489.12	4,921.64
ABP – Blood	020202	1,983.18	2,336	2,379.22
ABP – CAT 2	020202	615.68	562.80	642.92
ABP – Pet Food	020202	596.18	611.85	-
ABP – Offal	020202	4,491.9	5,254.44	5,847.42
Packaging and Landfill Waste	200101	134.16	132.48	140.76
Lamps	200121	0.219	-	0.286
Oil	110113	1.1	1.9	-
Paper	200101	-	2.78	-
Total waste recovered / recycled		12,994	14,188.87	13,932.24

Note: There was no collection of oil or paper in 2016.

Pet food is now removed with the offal from the site.

4.2

Waste removed off site for disposal

Waste Category	EWC	Tonnage per year 2014	Tonnage per year 2015	Tonnage per year 2016
Lab Waste	160506	0.150	0.082	0.055
Blades and Knives	180202	0.285	0.114	0.419
Total waste disposed		0.435	0.196	0.474

5.0 Resource and Energy Management

Data related to energy consumption (electricity, gas and oil) and water are summarised in the table below.

Monitoring Parameter	Unit of Measurement	2012	2013	2014	2015	2016
Electricity	Watts	5,237,200	5,226,720	5,176,020	5,536,300	5,361,600
Water	Gallons	39,982,849	35,803,470	37,434,256	39,812,650	39,788,793
Gas	M3	265,545	210,110	214,097	241,987	260,133
Oil	Litres	29,035	14,236	8,260	11,044	7,244

As part of our Origin Green plan and as outlined in our objectives and targets in section 2.3, we have set a target to reduce our energy consumption by 50% per tonne of carcass processed by 2019. This is a 10 year plan set in 2009.

We have already implemented a number of initiatives in order to meet our target.

These have included:

- Conducting an energy audit in 2016 and following up on recommendations
- Installation of LED lighting in external areas
- Installation of occupancy light sensors and timers to stop light systems when areas are not in use

6.0 Carbon Emissions Report

As outlined on our environmental policy, Dawn Pork and Bacon are committed to reducing our carbon footprint and associated greenhouse gas emissions through increasing our energy efficiency and investment in sustainable technologies.

The table below outlines our carbon emissions from 2010 to 2016.

Year	Annual Electrical CO2 Generated (Tonnes)	Annual Gas CO2 Generated (Tonnes)	Annual Gas Oil Generated (Tonnes)	Total Site Annual CO2 Generated (Tonnes)
2010	2,680	880	515	4,075
2011	2,608	631	520	3,759
2012	2,676	682	78	3,436
2013	2,671	540	38	3,249
2014	2,645	550	22	3,217
2015	2,829	621	30	3,480
2016	2,739	639	19	3,397

Between 2010 and 2016, we have reduced our carbon footprint by 16.6%.

Going forward we hope to reduce this further in 2017.

7.0 Water Conservation Report

The table below outlines the numbers of gallons of cold and hot water per pig processed at Dawn Pork and Bacon from 2010 to 2016.

The % reductions in water from 2010 to 2016 are also shown below.

Water Source	2010 Gallons used per pig processed	2011 Gallons used per pig processed	2012 Gallons used per pig processed	2013 Gallons used per pig processed	2014 Gallons used per pig processed	2015 Gallons used per pig processed	2016 Gallons used per pig processed	Overall reduction 2010-2016
Cold Water	121.42	92.81	78.11	80.07	79.31	76.14	76.86	36.69%
Hot Water	29.53	19.76	13.30	13.83	12.96	12.58	11.83	59.93%

As outlined in our objectives and targets for 2017, we are aiming to reduce our water consumption by 45% per tonne of carcass produced by 2019. This is a 10 year plan started in 2009.

The following measures were implemented at the facility which facilitated a reduction in water usage:

- Ongoing leak detection
- Introduction of sub-metering on hot and cold water usage onsite
- Use of a monitoring and targeting system
- Closer management of water usage
- Closer management of the cleaning operation onsite
- Recycling treated discharge from the effluent plant to the belt press
- Installation of more efficient valves and nozzles
- Recycling water from the vac pac machine into 40 degree water
- Upgrading the steriliser system to switch from continuously heated water at 82 degrees to water heated when required
- Automation of manual valves
- Trialling of different jets for washing purposes

Annually we review new technology to reduce water usage in order to achieve our target.

8.0 Reported Incidents

There was 1 environmental incident during 2016 at Queally Pig Slaughtering Ltd.

On 1st December at approx. 2pm there was a gas leak in an external area within the boundaries of the site. There were contractors on the site at the time doing some civil works. Before the contractors commenced work, a full survey was carried out to identify all services on the site. As the gas is in a plastic pipe, it could not be detected with a ground scanner. When installed, the pipe was bored underground as opposed to an open dig. Due to this fact, Dawn Pork and Bacon relied on the Bord Gais map illustrating the gas line position. The contractors were excavating an area and accidentally fractured the main gas line to Queally Pig Slaughtering Ltd which released some gas into the atmosphere. The contractors ceased operation and notified the site management and security team. The site was shut down and the emergency response team implemented the emergency response plan.

An Bord Gais were notified immediately as we required them to turn off the main supply of gas to the site. The Gardai were also notified to facilitate traffic management at the site entrance. When An Bord Gais arrived onsite they shut off the gas to the site. The fracture was repaired and normal service resumed at 4.30pm. During this incident a number of personnel went outside the boundary of the site to identify any odours from the leak and no odours were detected. This involved discussion with the neighbours.

Overall the incident was managed very well in a timely and safe manner and do not believe there was any environmental impact. The EPA (Irene Doyle) was contacted on the day at approx. 5pm and a message was left on Irene Doyle's answering machine.

Corrective Actions Taken

- The contractors ceased operation and notified the site management and security team. The site was shut down and the Emergency Response Team implemented the emergency response plan. An Bord Gais were notified immediately as we required them to turn off the main supply of gas to the site. The Gardai were also notified to facilitate traffic management at the site entrance. When Bord Gais arrived they shut off the gas to the site. The fracture was repaired and normal service resumed at 4.30pm.

- There was a meeting organised with the contractors on 05.12.2016 to discuss the incident. It was found that the contractors were working off inaccurate maps supplied by Bord Gais who have acknowledged this. They are to supply up to date maps.
- After the meeting with the contractors, the Emergency Response Team and the Health and Safety Team will review the incident to identify areas for improvement.

Preventative Actions Taken or Planned

- Bord Gais are to supply up to date maps. Site maps will then be updated to reflect this.
- The Health and Safety meeting noted that the incident was handled well and the procedure used could be put in place again if ever required.

9.0 Complaints Summary

The were no complaints received by Dawn Pork and Bacon during 2016.

APPENDIX 1

Boiler Efficiency 2016 Report Summary

Hi-Line Energy Solutions Ltd

2910

Croughtabeg, Windgap, Callan, Co. Kilkenny.

Tel: 051 641118 Fax: 051 641122 087 2280083 Email hilineenergy@eircom.net

Service Record / Commissioning / Fault Report

Client Dawn Pork & Bacon
 Address Grannagh Waterford
 Service Commissioning Call Out

Contact Name Solo
 Tel No. 30108
 Purchase Order No.
 Date 20-4-16

Burner Make: Rielto
 Model: R3190
 Serial No.
 Spec No.
 Fuel NAT GAS Output Kw

Boiler Make: Budeen's No. 1
 Model:
 Serial No.
 Input Kw Output Kw

Isolate power supply to appliance

Flue Analysis

	Checked	NA
Clean burner head		
Check spark probe		
Check flame probe		
Check photo/UV cell		
Check/Change nozzles		
Clean fan		
Clean burner body		
Clean sight glass		
Clean boiler		
Check for oil leaks		
Check for gas leaks		
Check air pressure sw		
Check gas pressure sw		
Check for water leaks		
Check seals		
Check flues		
Test fire burner	✓	
Check/Reset combustion	✓	
Check Gas Detection		

	High	Low
O2 %	4.9	5.1
CO ppm	5	4
CO2 %	9.1	9.0
Ratio	0.001	0.000
Temp Net		
Temp Flue	147	129
Net Efficiency %	94.5	95.2
Excess Air %	31.0	32.2

Gas inlet pressure Mb running
 Burner pressure Mb
 Oil pressure bar
 Smoke No.
 Nozzle Size/Degrees

Parts used:

Remarks: Spindle motor on burner no. 2 reported as faulty. check motor. motor jammed. remove motor from burner and fit new spindle motor. Adjust cam's Metal Band on Air Cam damaged. removed to get new Band made. Fitted new Metal Band to Air Cam. Re-set combustion on burner.

Time Sheet

Date	Travelling Time	Arrive	Depart	Total	Office Use
20-4-16	1 Hrs	9.30	15.00	Hrs	
	Hrs			Hrs	
	Hrs			Hrs	

Engineer Signature: Paul Jorrey

Client Signature: [Signature]

Subject to terms and conditions. Copies may be inspected at our office. All queries must be made within 5 days.

Hi-Line Energy Solutions Ltd

2911

Croughtabeg, Windgap, Callan, Co. Kilkenny.

Tel: 051 641118 Fax: 051 641122 087 2280083 Email hilineenergy@eircom.net

Service Record / Commissioning / Fault Report

Client Dawn & Peter + Rácan
 Address Greenwash Waterford
 Service Commissioning Call Out

Contact Name
 Tel No. 30108
 Purchase Order No.
 Date 20-4-16

Burner Make: Keello
 Model: RS 150
 Serial No.
 Spec No.
 Fuel NAT GAS Output Kw

Boiler Make: Buderus No. 2
 Model:
 Serial No.
 Input Kw Output Kw

Isolate power supply to appliance

Flue Analysis

	Checked	N/A
Clean burner head		
Check spark probe		
Check flame probe		
Check photo/UV cell		
Check/Change nozzles		
Clean fan		
Clean burner body		
Clean sight glass		
Clean boiler		
Check for oil leaks		
Check for gas leaks		
Check air pressure sw		
Check gas pressure sw		
Check for water leaks		
Check seals		
Check flues		
Test fire burner	✓	
Check/Reset combustion	✓	
Check Gas Detection		

	High	Low
O2 %	5.1	5.3
CO ppm	2	2
CO2 %	9.0	8.9
Ratio	0.0000	0.0000
Temp Net		
Temp Flue	167	139
Net Efficiency %	93.5	94.6
Excess Air %	32.6	34.4

Gas inlet pressure Mb running
 Burner pressure Mb
 Oil pressure bar
 Smoke No.
 Nozzle Size/Degrees

Parts used:

Remarks: Check and adjust combustion on burner no. 1
Oil can and linkage

Time Sheet

Date	Travelling Time	Arrive	Depart	Total	Office Use
<u>20-4-16</u>	<u>1</u> Hrs	<u>9.30</u>	<u>15.00</u>	Hrs	
	Hrs			Hrs	
	Hrs			Hrs	

Engineer Signature: Paul Gierney

Client Signature: [Signature]

Subject to terms and conditions. Copies may be inspected at our office. All queries must be made within 5 days.

APPENDIX 2

Noise Survey 2016 Report Summary

ANNUAL NOISE ASSESSMENT 2016
DAWN PORK AND BACON, GRANNAGH, CO. KILKENNY

7.0 DISCUSSION

The conditions of the sites IED licence relating to facility related noise are as follows;

Condition 4.3 *“Noise from the installation shall not give rise to sound pressure levels (Leq,T) measured at the noise sensitive locations (NSLs) of the installation which exceed the limit value(s)”*

Schedule B.4 Noise Emissions

Daytime dB(A) L _{Aeq} (30 minutes)	Night-time dB(A) L _{Aeq} (30 minutes)
55 ^{Note 1}	45 ^{Note 1}

Note 1: There shall be no clearly audible tonal or impulsive component in the noise emission from the activity of any noise sensitive location.

As per section 3.3 of the EPA Guidance note for Noise in Relation to scheduled activities (2nd edition), the above noise limits are based on those detected at associated noise sensitive locations.

No complaints regarding noise have been received by the company in the last 5 years.

Below is a summary table detailing the assessment findings:

Table 7.1 – Noise Monitoring Summary Table

Ref. No.	Location	2014	2016	2014	2016
		Leq. 30 Daytime	Leq. 30 Daytime	Leq. 30 Night-time	Leq. 30 Night-time
Licence Limits (dB(A) L_{Aeq}(30 minutes)		55	55	45	45
N1	North boundary of employee car-park	61	56	46	53
N2	Eastern boundary adjacent pallet area	60	58	56	54
N3	Western boundary within the rear work yard	68	69	55	59
N4	Southern boundary, south of the WWTP	57	58	57	53
NSL1	Roadside, near a collection of 3 dwelling houses located southwest of facility	57	57	45	47
		45 (L ₉₀)	43 (L ₉₀)	31 (L ₉₀)	31 (L ₉₀)

As can be seen from the table above, noise levels detected during this 2016 survey were broadly similar to those detected in 2014. Variation in measured noise levels were predominantly due to differences on traffic levels onsite and offsite.

Measured L_{Aeq} noise levels at the offsite noise sensitive monitoring location were above the IE licence noise licence limits in this 2016 survey due to intermittent traffic noise on the adjacent local road and this is detailed further in the discussion below.

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DAWN PORK AND BACON, GRANNAGH, CO. KILKENNY

The following graphs detail the historic trend in boundary and noise sensitive location noise levels measures as part of the onsite IE licence noise monitoring requirement.

Figure 7.1: Daytime Noise History Graph

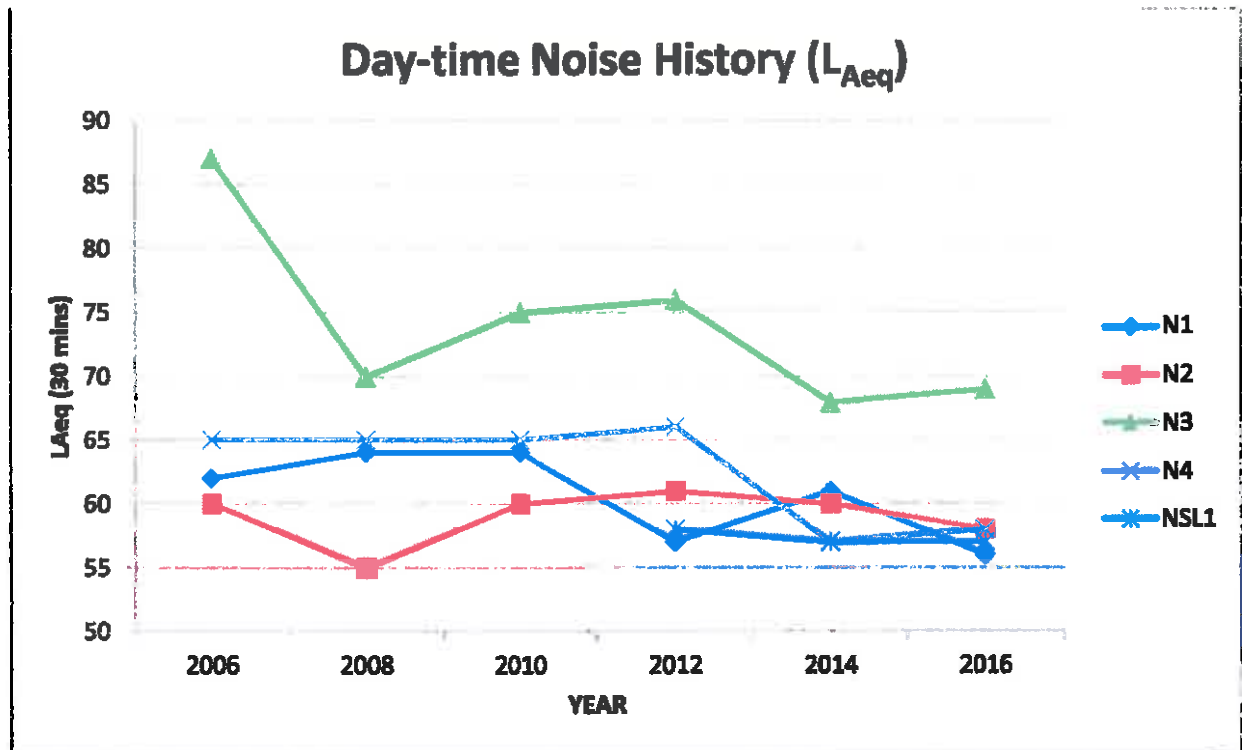
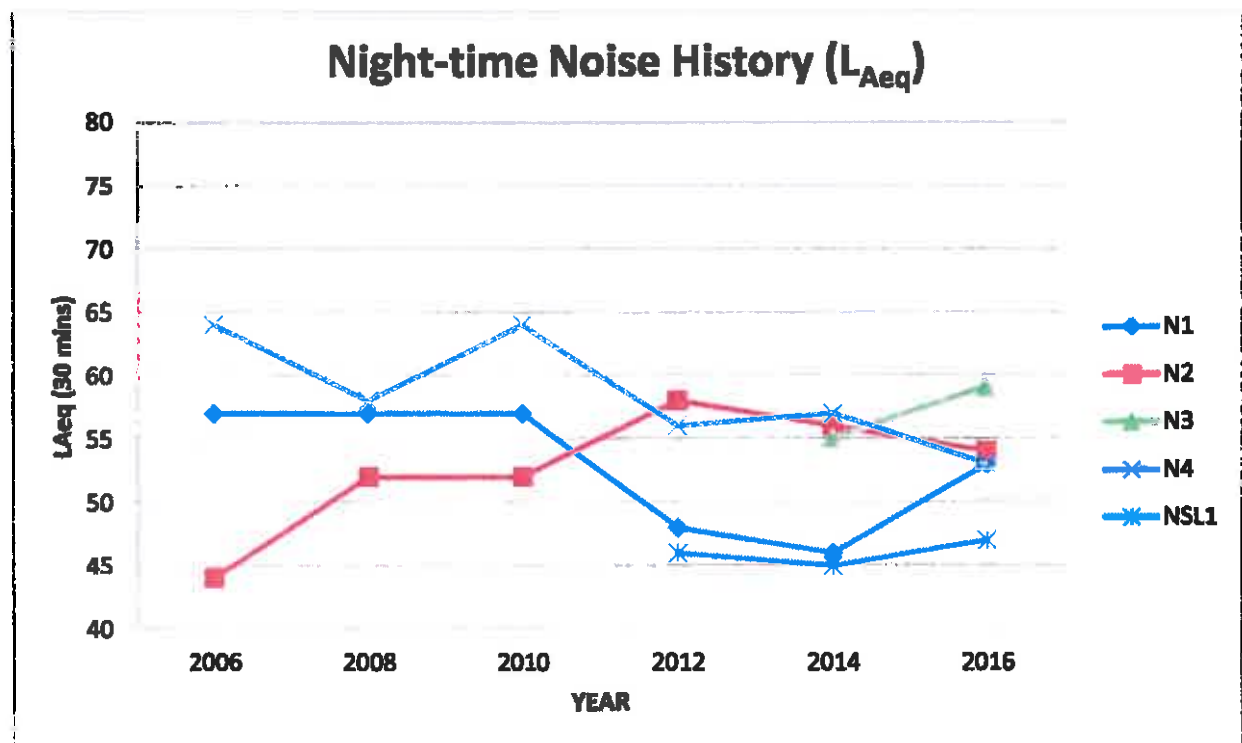


Figure 7.2: Night-time Noise History Graph



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DAWN PORK AND BACON, GRANNAGH, CO. KILKENNY

As stated above, the noise limits as set in the Queally Pig Slaughtering Ltd IE licence relate to noise levels measured at noise sensitive locations. Therefore, these limits do not apply to boundary monitoring locations. Boundary noise measurements have been compared with historic measurements at these locations in order to track changes in noise levels from operations in the vicinity of the monitoring points.

N1 - This monitoring location is situated on the northern boundary of the factory, separated from the factory by the employee carpark.

The majority of noise recorded at this location was due to frequent passing traffic noise on the N24 road, north of this location. Noise from this source was reduced during the night-time period, due to lower traffic volumes offsite. Intermittent onsite vehicle movements, trucks and cars within the adjacent carpark, also added to noise levels, particularly during the daytime period. The canteen ventilation system and refrigerated trailers at the dispatch area were the main facility related noise source during the day-time monitoring period. Refrigeration plant noise from the roof/rear of the facility also added to noise levels during the night-time monitoring period in the absence of traffic.

As can be seen in table 7.1 above, the 2016 day-time noise level is 4 dBA below the 2014 noise level, while the 2016 night time noise level is 6 dBA above the 2014 level. The deviation in daytime noise is likely due to increased traffic noise, as the background L_{90} levels are broadly similar at 53 dBA (2014) and 55 dBA (2016). The increase in night time noise levels may, in part, be due to background from refrigerated trailers at dispatch. As can be seen in figures 7.1 and 7.2 above, 2016 noise levels fall within the range of historic levels recorded at this location.

N2 - This monitoring location is situated on the eastern boundary of the factory beside the pallet storage area.

The dominant day-time noise source at this location was the refrigeration system within the main building. Forklift activity and material dropping into the CAT 3 trailer also added slightly to noise levels.

During the night-time period, power-washing activities within the main facility, in combination with refrigeration noise, resulted in a noise level of 68 L_{Aeq} at this monitoring location. There were no distinctly audible facility related noise sources at this location during the second monitoring period, however, the recorded 40 dBA L_{Aeq} noise level would relate to the background noise from the facility.

2016 daytime noise levels at this location are broadly similar to those recorded in 2016, although may be slightly lower due to less demand on the refrigeration systems with cooler weather in 2016.

Night time noise levels were 12 L_{Aeq} higher during the first monitoring period in 2016 than those recorded in 2014 due to power washing. The main noise source described in the 2014 report for this location was refrigeration fan noise. As no refrigeration was running during the second 2016 monitoring period, noise levels were 16 dBA lower than in 2014.

As can be seen in figure 7.1 above, daytime refrigeration noise at this location is broadly similar to that recorded in previous monitoring years.

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DAWN PORK AND BACON, GRANNAGH, CO. KILKENNY

N3 – This monitoring location is situated on the western boundary of the factory within the rear work yard/ Intake Irish Casings yard.

During the day-time monitoring period, the main noises detected at this point was traffic entering and leaving the site and refrigeration noise from a nearby parked refrigerated trailer.

During the night time period, the dominant noise source was a refrigerated trailer parked at an adjacent facility operating intermittently. In the absence of this source, the main noise detectable was from the main refrigeration plant in the Irish Casings building and, to a lesser extent from aeration equipment in the onsite treatment plant.

As can be seen in table 7.1 above, 2016 daytime noise levels (69 L_{Aeq}) are similar to those found in 2014 (68 L_{Aeq}) and indicate similar onsite traffic levels during both surveys. Night time noise levels were 4 dBA L_{Aeq} higher in 2016 than in 2014 due to the operation of the refrigerated trailer.

Daytime noise levels are consistently higher at this location when compared to other boundary locations as monitoring is conducted beside the main onsite road.

N4 - This monitoring location is situated on the southern boundary of the factory within the WWT Plant. This is a remote part of the factory and no noise sensitive locations exist within this area.

The majority of noise audible at this location was due to the effluent plant aeration blower during the day-time and night-time surveys. Intermittent traffic passing within the site also added to noise levels during night time and daytime periods.

As can be seen in table 7.1 above, daytime noise levels are similar to those monitored in 2014. 2016 night time noise levels are 4 dBA L_{Aeq} lower than those recorded in 2014, which may be due to less demand on the aeration systems with cooler weather in 2016.

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DAWN PORK AND BACON, GRANNAGH, CO. KILKENNY

NSL1 – This noise sensitive location is located on a roadside to the southwest of the facility, beside a collection of three dwelling houses.

The site was not audible from this monitoring location during the daytime and night-time monitoring period. The dominant noise source was traffic along the local road, and background traffic noise on the N24 and N25 roads.

Section 7.9 of the “Guidance Note for Noise (NG4)” produced by the Environmental Protection Agency in 2016 states that *“the LA90,T index may be used to give a good indication of the actual noise output from the site, where the noise emissions on site are relatively steady and extraneous noises may unduly influence the measured LAeq,T”*.

Due to the continuous and steady nature of the noise emissions from the site and the fact that extraneous noise, predominantly from local road traffic, dominates the background noise environment, it is considered that the L₉₀ parameter may offer a better representation of the site noise emissions.

The L₉₀ was determined to be 43 dBA during the daytime monitoring period and 31 dBA during the night-time monitoring period. Therefore, the site is in compliance with the IE licence daytime noise limit of 55 dBA L_{Aeq} (30 mins) and night time noise limit of 45 dBA L_{Aeq} (30 mins).

There was no audible tonal or impulsive component arising from the facility during the daytime and night time monitoring periods at this noise sensitive location. As can be seen from the Third Octave reports presented in Appendix C, no tonal features were detected during the monitoring period.

As can be seen in table 7.1 above, the daytime and night time noise levels recorded in 2016 are broadly similar to those recorded in 2014. The slight variations in noise levels would be due to differences in traffic volumes during the two monitoring surveys.

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8.0 CONCLUSIONS

- **Monitoring at the noise sensitive location determined that facility related noise levels were in compliance with the sites IE licence daytime and night-time limits.**
- **No impulsive noise or tonal signals were audible or detected at the noise sensitive location during this 2016 environmental noise assessment.**
- **Noise levels at boundary locations were broadly similar to those recorded during previous noise monitoring surveys.**
- **Variations in boundary noise levels were due to differences in offsite and onsite traffic volumes, the presence of parked refrigerated trailers, power washing activities within the Irish Casings building and lower demand on refrigeration and aeration equipment due to cooler weather.**

APPENDIX 3

Energy Efficiency Audit Report 2016 Summary

12.0 AUDIT FINDINGS & RECOMMENDATIONS

The audit findings are tabulated below. In summary, eight recommendations have been made as a result of the findings.

Measure	Status
Energy Management	<p>Complete - An energy policy has been implemented for the site and the sites energy manager records consumption and production levels on a weekly basis in order to monitor and target energy efficiency objectives and targets set for the site.</p>
Total Facility Energy Benchmarking	<p>Complete - For the purpose of benchmarking energy performance a baseline was developed for the total facility energy consumption. The baseline year chosen is 2010. This was chosen as the baseline year for the entire energy review process carried out. It can clearly be seen that the facility has reduced its total annual energy consumption for 2015 to 8,679,663 kWh. This is significantly lower than the 2010 baseline of 11,489,462 kWh.</p> <p>It is recommended that the facility consider using 2015 as a baseline going forward as 2010 no longer reflects organizational energy use and consumption. 2015 will reflect current energy trends at the facility. This would serve as a reference point in future analysis carried out on energy performance. An EnPI of total site energy (kWh) per pig killed is also used to monitor energy performance at the facility.</p>
Electrical Load	<p>In Progress - The majority of the facility's electrical consumption is attributed directly to the refrigeration system, the compressed air system and the lighting. Lighting upgrades and a voltage optimisation project have been implemented at the site to lower the facilities electrical load.</p>

In Progress - Phase 1 of the LED lighting upgrade project involved the upgrade of a total of 226 no. T8 light fittings within the facility with LED equivalent. .

Lighting

Phase 2 of the project began in early 2016 and involved the upgrade of a total of 250 no. T8 light fittings within the facility with LED equivalent. Plans are in place to upgrade the lighting in the offices and staff areas to more efficient LED fittings in the coming months.

Lighting Controls

Rejected - There is no need for occupancy sensors due to high occupancy and activity levels.

In Progress - The facility has reduced its total annual gas consumption in 2015 to 3,031,057 kWh. This is significantly lower than the 2010 baseline of 4,294,687 kWh. The facilities gas EnPI has also dropped from 9.64 kWh / pig killed in 2010 to 5.80 kWh / pig killed in 2015.

Benchmarking Gas Consumption

It is recommended that QPS consider using 2015 as a baseline going forward as 2010 no longer reflects organizational energy use and consumption. 2015 will reflect current energy trends at the facility. This would serve as a reference point in future analysis carried out on energy performance.

Benchmarking Gas Oil Consumption

In Progress - The facility has reduced its total annual gas oil consumption for 2015 to 112,306 kWh. This is significantly lower than the 2010 baseline of 1,949,275 kWh. This is mainly due to the singer now being fueled by gas as opposed to gas oil. It is recommended that alternative office heating methods be investigated as now only the onsite generator and office boiler are run off gas oil. On average over the past three years the office boiler consumes 60% of the total gas oil annual kWh.

It is recommended that the facility consider using 2012 as a baseline going forward as 2005 no longer reflects organizational energy use and consumption. 2012 will reflect current energy trends at the facility. This would serve as a reference point in future analysis carried out on energy performance.

Demand Side Management

Complete - QPS has entered into a Demand Side Management with Energy Trading Ireland to utilise a backup generator to provide power to the facility thus reducing the load on the mains grid by 0.5MWh.

13.0 CONCLUSIONS

It is concluded that QPS have made some modifications to the plant over the last number of years that have had a dramatic improvement on the facility's energy performance and carbon footprint.

QPS had a carbon footprint of 4,075 Tonnes CO₂ in 2010 and 3,480 Tonnes CO₂ in 2015. This represents a 15% reduction in CO₂ emissions in 5 years. This is a significant reduction in QPS's carbon footprint.

It is considered that the current Energy Management system currently being implemented at the facility is an area that can consistently be improved upon by introducing more granularity and sub metering going forward. There is potential for further savings and improved energy management if the company wishes to further develop.

APPENDIX 4

Bund and Pipeline Integrity Report 2016 Summary

BUND INTEGRITY ASSESSMENT REPORT
DAWN FORK & BACON, GRANNAGH, CO. KILKENNY

EXECUTIVE SUMMARY

The purpose of the works undertaken was to assess the structural and hydraulic integrity and adequacy of all bund and pipeline structures which contain liquids in the event of a spillage or tank rupture.

A total of 12 bunds were tested as part of this assessment, 7 in the main back yard area and 5 in the Waste Water Treatment Plant compound. All of the bunds tested are in on-going use at the facility.

A full-scale hydraulic test was undertaken on 8 bunds as detailed in section 4.0 below, which comprised flooding the bunds with water and allowing them to stabilise for 24 hours, followed by a water level test. A visual structural integrity assessment was undertaken on all bund structures.

Bund 1a and 1b were visually assessed only, as these are double skinned tanks. Bunded spill floors 8 and 9 were visually assessed due to the large volumes of the bunds and the presence of floor drainage leading to the WWTP.

This report contains the findings of the structural and hydraulic integrity assessment and provides recommendations for maintenance works where required.

TEST	NO. BUNDS	PASS	FAIL
Full Hydrostatic Test:	8	8	0
Visual Inspection:	4	4	0
Total:	12	12	0

The main finding of the assessment was that all inspected bunds were of sound structure and were impervious to the materials contained therein.

1. The blood storage tank bunded spill floor (SF8) was found to have a minor crack in the front concrete wall on Thursday 23rd June 2016. The crack repaired and was re-assessed on Saturday 25th June 2016. *(Sealed up on the 25th)*
- X 2. It is recommended that an additional crash barrier be placed at the front of the blood storage tank bunded spill floor due to the frequency of traffic turning in this area.
3. Any liquid to be drained from bunds should be diverted to the onsite effluent treatment plant for disposal, where appropriate.
4. All bunds should be inspected again in March 2019 as per EPA guidance.

BUND INTEGRITY ASSESSMENT REPORT
DAWN PORK & BACON, GRANNAGH, CO. KILKENNY

1.0 INTRODUCTION

Dawn Pork & Bacon, Grannagh operates under IPPC Licence P0175-02. Condition 6.9 of this licence states that:

"The integrity and water tightness of all underground pipes, tanks, bunding structures and containers and their resistance to penetration by water or other materials carried or stored therein shall be tested and demonstrated by the licensee to the satisfaction of the Agency. This testing shall be carried out by the licensee at least once every three years and reported to the Agency on each occasion. This testing shall be carried out in accordance with any guidance published by the Agency. A written record of all integrity tests and any maintenance or remedial work arising from them shall be maintained by the licensee."

Panther Environmental Solutions Ltd was commissioned by Dawn Pork & Bacon, Grannagh to prepare a detailed bund and pipeline report. This document comprises a report of the integrity testing carried out.

Both hydrostatic and visual assessments were carried out to determine the bunding integrity at this installation, in accordance with the following:

1. British standard BS 8007:1987a – Design of concrete structures for retaining aqueous liquids.
2. CIRIA report 163 – Construction of bunds for oil storage tanks.
3. EPA's Guidance Note on the Storage and Transfer of Materials for Scheduled Activities.

The on-site assessment works were undertaken on Thursday 23rd June and Saturday 25th June 2016.

This document comprises a report of the assessment carried out by Panther Environmental Solutions Ltd and has been based on site inspection and tests. This document may be used as the basis for the completion of a bund register, as per recommendation one.

BUND INTEGRITY ASSESSMENT REPORT
DAWN PORK & BACON, GRANNAGH, CO. KILKENNY

2.0 DESCRIPTION OF BUND ARRANGEMENTS

Due to the type of processes undertaken at this site, the range of animal-related and liquid chemicals used is varied and complex and are mainly associated with maintenance oils, cleaning and wastewater treatment.

The largest tank detailed in this report is the 26 M³ mucus tank. There is a significant number and type of chemicals stored on site; however volumes stored are relatively small.

All bunds were inspected and findings are detailed in section 5.0 below.

For the bund assessment, as per section 3.2 of the CIRCA report 163, where two or more tanks are installed within the same bund, the recommended capacity is the greater of:

- A. 110% of the capacity of the largest tank within the bund, or
- B. 25% of the total capacity of all of the tanks within the bund.

3.0 HYDRAULIC INTEGRITY ASSESSMENT METHOD

In order to assess the hydraulic integrity of the bund structures, a full scale hydraulic test was undertaken. The hydraulic test was undertaken in general accordance with the following standards and technical publications:-

- BS8007:1987 – Design of Concrete Structures for Containing Aqueous Liquids
- CIRIA Report 163 – Construction of Bunds for Oil Storage Tanks
- EPA's Guidance Note on the Storage and Transfer of Materials for Scheduled Activities.

At 09.00am on Wednesday 22nd June, the bund structures were flooded with water to pre-determined levels. The water level in the bunds was allowed to stabilise for a period of approximately 24 hours.

A measuring device was placed within the bund structure and at 10:00am on Thursday 23rd June, a start water level was recorded. 6 hours later at 16.00pm, a second water level was recorded.

The pipeline PL4 and sumps (S6 and S7b) were assessed on 07:00am Saturday 25th June 2016. The pipeline and sump were filled with water on 07:00am Friday 24th June 2016, 24 hours previous to the test. The re-assessment of the Blood Storage Tank bund (B8) was also carried out on this date.

A shallow plastic bund structure was also filled with water and placed adjacent to the rest area for the purpose of recording any evaporation which may occur during the test period.

Any difference in water levels was recorded over the 6 hour test period which would indicate whether the hydraulic integrity of the bund structure is sound or not.

BUND INTEGRITY ASSESSMENT REPORT
DAWN PORK & BACON, GRANNAGH, CO. KILKENNY

4.0 BUND INSPECTION

Each of the following designated bund storage areas was inspected.

Table 4.1: Summary Bund Register

No.	TYPE	LOCATION	DESCRIPTION	CONSTRUCTION	TEST TYPE	RESULT
1a	Bt	Beside Reception	Boiler Diesel Bunded Tank	Double Skinned MDPE Plastic	Visual	PASS
1b	Bt	Adjacent to QK Coldstores	Boiler Diesel Bunded Tank	Double Skinned MDPE Plastic	Visual	PASS
2	B	Beside Irish Casings Building	Plastic Bund (single IBC) Irish Casings	HDPE Plastic	Hydrostatic	PASS
3	B	Irish Casings Yard	Plastic Bund (double IBC) Irish Casings	HDPE Plastic	Hydrostatic	PASS
4	PL	Irish Casings Yard	Raw Effluent Pipeline	Concrete	Hydrostatic	PASS
5a	B	WWTP Yard	CL1000 Bund	Stainless-Steel Box Frame & Cladding	Hydrostatic	PASS
5b	B	WWTP Yard	CL1000 Bund	Stainless-Steel Box Frame & Cladding	Hydrostatic	PASS
6	S	WWTP Yard	Sump from main sludge line	Recess in Mass Concrete Slab	Hydrostatic	PASS
7a	S	WWTP Yard	De-watering sump	Recess in Mass Concrete Slab	Hydrostatic	PASS
7b	S	WWTP Yard	De-Watering Sump	Recess in Mass concrete slab	Hydrostatic	PASS
8	SF	Beside Irish Casings Building	Blood storage tank bund	Reinforced Mass Concrete	Visual	PASS
9	SF	Beside Irish Casings Building	Irish Casings bund (Silo)	Reinforced Mass Concrete	Visual	PASS
B =		Bund	Bt =		Bunded tank	
S =		Sump	PL =		Pipeline	
SF =		Spill floor				

The detailed findings of these inspections are documented below.

APPENDIX 5
PRTR Data 2016



Environmental Protection Agency

[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	Queally Pig Slaughtering Limited
Facility Name	Queally Pig Slaughtering Limited
PRTR Identification Number	P0175
Licence Number	P0175-02

Classes of Activity

No.	class name
	- Refer to PRTR class activities below

Address 1	Grannagh
Address 2	Kilkenny
Address 3	
Address 4	
	Kilkenny
Country	Ireland
Coordinates of Location	-7 16672 52.2776
River Basin District	IESE
NACE Code	1011
Main Economic Activity	Processing and preserving of meat
AER Returns Contact Name	Sinead Moroney
AER Returns Contact Email Address	smoroney@dawnpork.com
AER Returns Contact Position	Environmental Technician
AER Returns Contact Telephone Number	051-870210
AER Returns Contact Mobile Phone Number	
AER Returns Contact Fax Number	
Production Volume	0.0
Production Volume Units	
Number of Installations	0
Number of Operating Hours in Year	0
Number of Employees	299
User Feedback/Comments	
Web Address	

2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
8(a)	Slaughterhouses

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

Is it applicable?	No
Have you been granted an exemption?	No
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)?	No
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This question is only applicable if you are an IPPC or Quarry site

4.2 RELEASES TO WATERS

Link to previous years emissions data

PRTR: POTTS Facility Name: Cuswell Pigs Slaughtering Limited | Filename: 04.04.2017.xls | Return Year: 2016 |

04/04/2017 11:08

Here you can check the consistency of your emissions data with the information provided in the previous years' returns. If you find any discrepancies, please contact the relevant authority. **PLEASE NOTE: The information shown in this table is for informational purposes only and does not constitute a release from your facility.**

SECTION A: SECTOR SPECIFIC POTR POLLUTANTS

Pollutant	Emission Point	Quantity	
		T (Total) KG/Year	F (Fugitive) KG/Year
High sulphur fuel oil (HSFO)	M	0.0	0.0
Low sulphur fuel oil (LSFO)	M	0.0	0.0
Other	M	0.0	0.0
Total		0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) from the table below.

SECTION B: REMAINING POTR POLLUTANTS

Pollutant	Emission Point	Quantity	
		T (Total) KG/Year	F (Fugitive) KG/Year
Other	M	0.0	0.0
Total		0.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) from the table below.

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

Pollutant	Emission Point	Quantity	
		T (Total) KG/Year	F (Fugitive) KG/Year
Ammonia (as N)	M	610.96	0.0
BOD	M	3628.0	0.0
CO ₂	M	23786.0	0.0
Dissolved Lead (Pb)	M	131.3	0.0
Dissolved Zinc (Zn)	M	1236.91	0.0
Other	M	220.18	0.0
Total		3280.0	0.0

* Select a row by double-clicking on the Pollutant Name (Column B) from the table below.

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Hazardous Waste Licence/Permit No of Next Destination Facility Hazardous Waste Licence/Permit No of Receiving/Disposer	Hazardous Waste Licence/Permit No of Next Destination Facility Hazardous Waste Licence/Permit No of Receiving/Disposer	Name and Location / Permit No. and Address of Final Receiver / Disposer (Hazardous Waste ONLY)	Actual Address of Final Destination in Final Receiver / Disposal Site (Hazardous Waste ONLY)
						M/C/E	Method Used					
Within the Country	02 02 02	No	642.92	Animal tissue waste CAT 2	R3	M	Weighted	Offsite in Ireland	ABP Proteins Waterford, R919	Christendom Ferrybank, Waterford, Ireland	Veolia W0050-2	Cork, Ireland
Within the Country	02 02 02	No	5847.42	Animal Tissue waste Offal	R3	M	Weighted	Offsite in Ireland	Munster Proteins, R914	Cahir, Tipperary, Ireland 2 Silverwood Industrial Estate, Craighavon, D, Armagh BT65 6LN, United Kingdom Tourin, Cappoquin, Waterford, Ireland	Veolia W0050-2	Cork, Ireland
To Other Countries	02 02 02	No	2379.22	animal-tissue waste blood	R3	M	Weighted	Abroad	APC Technologies DAFF AB Agfills	Estate, Craighavon, D, Armagh BT65 6LN, United Kingdom	TRV Themische Ruckstandsverwertung GmbH & Co. KG, E36232112, Rodenkircher	Rodenkircher StraÙe, D50389, Wesseling, Germany
Within the Country	02 02 04	No	4921.04	sludges from on-site effluent treatment. Laboratory chemicals consisting of or containing dangerous substances including	R10	M	Weighted	Offsite in Ireland	Ltd, WCP/K/317(a)/08	Units 420-430 Beach Road Western Industrial Estate Neas Road, Dublin 12, Dublin 12, Ireland	Strasse, D50389, Wesseling, Germany	Rodenkircher StraÙe, D50389, Wesseling, Germany
Within the Country	18 05 08	Yes	0.055	mixtures of laboratory chemicals	D15	M	Weighted	Offsite in Ireland	Veolia W0050-2	Cork, Ireland	Veolia W0050-2	Cork, Ireland
To Other Countries	18 02 02	Yes	0.419	wastes whose collection and disposal is subject to special requirements in order to prevent infection	D15	M	Weighted	Abroad	Sterile Technologies Ireland Limited, W0055-02	Units 420-430 Beach Road Western Industrial Estate Neas Road, Dublin 12, Dublin 12, Ireland	Strasse, D50389, Wesseling, Germany	Rodenkircher StraÙe, D50389, Wesseling, Germany
Within the Country	20 01 01	No	140.76	Packaging waste and landfill waste	R5	M	Weighted	Offsite in Ireland	GreenStar Ltd, WCP W0116-02	roads, Carriganard, Butlerstown, Waterford, Ireland	Strasse, D50389, Wesseling, Germany	Rodenkircher StraÙe, D50389, Wesseling, Germany
Within the Country	20 01 21	Yes	0.286	Fluorescent tubes and other mercury containing waste	R5	M	Weighted	Offsite in Ireland	Irish Lamp Recycling Co. Ltd, WFP-KE-08-0384-01, Woodstock Industrial Estate, Kilkenny Road, Athy, Co. Kildare, Ireland	Woodstock Industrial Estate, Kilkenny Road, Athy, Co. Kildare, Ireland	Irish Lamp Recycling Co. Ltd, WFP-KE-08-0384-01, Woodstock Industrial Estate, Kilkenny Road, Athy, Co. Kildare, Ireland	Woodstock Industrial Estate, Kilkenny Road, Athy, Co. Kildare, Ireland

* Select a row by double-clicking the Description of Waste then click the delete button

[Link to previous years waste data](#)
[Link to previous years waste summary data & percentage change](#)
[Link to Waste Guidance](#)