DAWN MEATS (EXPORTS) LTD.

Grannagh, Waterford
IPPC Licence Reg No. P0179-01

Annual Environmental Report 2008

(Covering 2008 Monitoring Period)

March 2009

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1.0 Introduction

This document is the ninth Annual Environmental Report (AER) covering environmental performance at the Dawn Meats (Exports) Ltd., Grannagh facility.

This report updates the information contained in the last AER to the end of December 2008 and summarises all data for the 2008 monitoring period and makes comparisons with year 2007 results.
This document updates the following sections of the monitoring period 2008 AER:

Section 2.0 Schedule of Objectives & Targets
Section 3.0 Environmental Management Programme – Status Report
Section 4.0 Emissions to Water Summary
Section 5.0 Surface Water Monitoring Summary
Section 6.0 Groundwater Monitoring Summary
Section 7.0 Waste Management Summary
Section 8.0 Resource Consumption Summary
Section 9.0 Complaints Summary
Section 10.0 Reported Incidents Summary

As in the past, a brief summary of the main achievements of the Environmental Management Plan is included as Section 3.0.

1.1 Licence Details

Licensee: Dawn Meats (Exports) Ltd.

Location of Activity: Grannagh, Waterford

IPPC Licence Register No.: P0179-01

1.2 Summary Data Table

Current IPPC Licence annual reporting requires the submission of summary monitoring, resource use, complaints and waste management information in the form of a spreadsheet, which is transmitted to the Agency electronically. A print out of this summary data spreadsheet is included as Attachment B to this AER. The spreadsheet has been submitted electronically to the EPA at http://aer.epa.ie/prtr

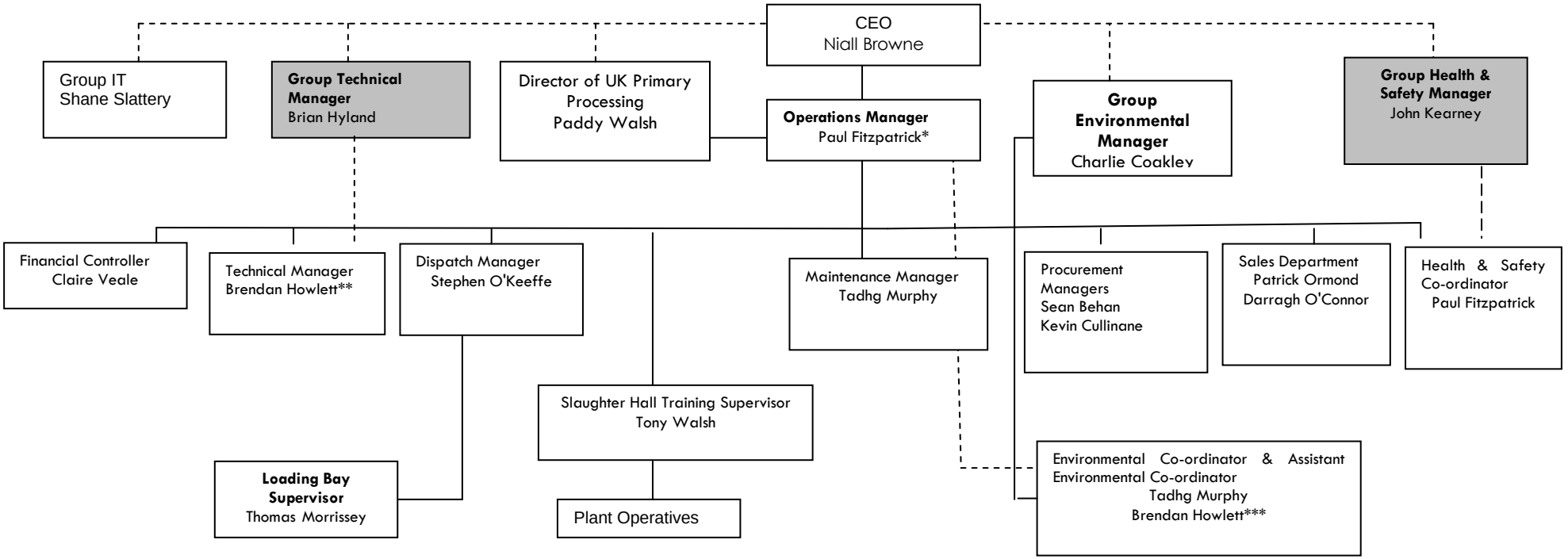
1.3 Company Profile

Dawn Meats (Exports) Ltd. are involved in the slaughtering of cattle for supply to Irish and export markets. The site is owned by the Dawn Group who have their headquarters located at the site. The company was established in 1980 and the Grannagh site was acquired in 1985. The slaughter plant has been continuously upgraded and modified to a modern and efficient plant with a capacity of approximately 90,000 head of cattle per annum. The plant size is 80,000 square feet and comprises of lairage, slaughter-hall and loading bay. Service utilities include the boilers and refrigeration units together with process water and a wastewater treatment plant which is shared with Queally Pig Slaughtering Ltd. (t/a Dawn Pork and Bacon IPPCL P0175-01). The primary

environmental emissions at the plant relate to the discharge of treated wastewater and the generation of organic waste as sludge, which is land spread. The environmental performance of the facility is regulated under an IPPC licence (Reg. No. 179-01). Environmental management at the site, including compliance with the IPPC licence, is achieved through a structured Environmental Management System (EMS).

An organogram illustrating the company management structure can be seen Below; figure 1.

Dawn Meats (Exports) Ltd – Figure 1



*** - Assistant Environmental Co-ordinator

2.0 Schedule of Objectives and Targets 2008 and 2009 Plans.

This section includes (2.1) progress achieved in meeting deadlines set for the 14 objectives and targets from the 2008 Schedule. Following the annual environmental management review by management, an amended format to the schedule of objectives and targets has been added in sub-section 2.2. The Environmental Management Programme and Objectives and Targets are outlined in section 3.

2.1 - Objectives and Targets 2008 Progress Report

Table 1

Objective	***Target***	***Deadline***	***Indicator***	***Project***
Modification to process resulting in improved yield, elimination of wastes or use of alternative less hazardous materials.	Improved blood collection system i.e. 20kg/head. Blood catch tray extended by two meters.	Completed July 2008	Increased quantity of blood collected per head of animals slaughtered. Reduced organic loading to balance tank.	EMP 04
Reduce odour emissions.	Minimisation of sources of odour emissions. The balance tanks were covered.	Completed November 2008	Number of Complaints	EMP 03
Reduce energy / resource consumption.	Installed speed control invertors - To control the max speed of the line Lagging of all heat exchangers in boiler house New timers installed on external lighting Compressed air - Install small air compressor for offal pack area and loading bay for non-kill days The boiler start times are staggered and are limited to production days only NH3 Hot gas Recovery - Process water temperature raised from 11^0C to 23^0C	Completed May 2008 Completed April 2008 Completed April 2008 Completed Sept 2008 Completed April 2008 Completed May 2008	Work completed Insulation completed Insulation completed New compressor and pipes installed Installation completed Unit Installed	EMP 13

2.1 continued - Objectives & Targets 2008 Progress Report

Objective	***Target***	***Deadline***	***Indicator***	***Project***
Prevention of incidents with the potential for environmental consequences.	Bund Integrity Testing Pipeline testing	Every Three Years Every Three Years	In compliance with IPPC Licence Reg. No 179 Conditions 9.3.6. 9.3.7 9.3.3 9.3.2	EMP 01 EMP 02
Improvements in process waste water quality	Ongoing monitoring of water usage throughout plant and comparison at group level to industry usage levels Installation of DAF unit	Ongoing Completed August 2008	WWTP records, water records Installation completed	EMP 03 EMP 04 EMP 17
Continue new licensee – performed noise surveys	Identify the primary sources of noise emissions; Group internal checks Independent external surveys.	Ongoing Completed May 2008	EVR-14 H&S Surveys External Surveys	EMP 13
Ensure Specific Task managers receive relevant training on environmental and health and safety issues.	Continue relevant training programmes for relevant managers and operatives – Induction training for all new staff and refresher training every three years for existing staff	Completed January 2008	Training Records	EMP 18 EMP 19
Minimisation of solid waste	Further develop waste minimisation and recycling strategy and programme – Outlined plan in section 2.2	2009	Volume of solid waste as tonnes per head slaughtered.	EMP 05 EMP 06 EMP 07 EMP 08

2.1 continued - Objectives & Targets 2008 Progress Report

Objective	***Target***	***Deadline***	***Indicator***	***Project***
Minimise the potential for environmental impacts on water and groundwater.	New Landbanks - Continue process of identification and evaluation of suitable Land spread areas to ensure sustainability of land application	Annually	NMP Records	EMP 09
Internal Audits	Verify site environmental performance and compliance on a regular basis through scheduled, structured and objective internal audits.	Completed July 2008	Audit Reports	EMP 06
Paper Recycling	Recycled/shredding - Paper Evaluate office paper for recycled content	Completed Sept 2008	Supplier Specs	EMP 16

2.1 continued - Objectives & Targets 2008 Progress Report
Comment:

The management status review of Objectives and Targets for 2008 came to the conclusion that significant progress was made across most of the objectives and further progress would be best achieved through extending the number of objectives to fifteen. Specific target and project amendments for 2009 follow in the next sections. As was the case last year, most of these objectives and targets have been proceduralised and so their status will remain *ongoing*.

2.2 Objectives & Targets – 2009

Objective - Prevention of Pollution – Table 2.0

Projects	Target	Summary	Deadline	Responsibility	Indicators	Status
EMP 01 Pipeline Testing	Underground pipelines	2006 Underground pipelines were tested	Every 3 years Due July 2009	Maintenance Manager	Reports	Ongoing (tested 2006, re test due 2009)
EMP 02 Bund Integrity Testing	Tallow, Diesel, Generator and central heating Bund	2006 Bund testing completed	Every 3 years Due July 2009	Maintenance Manager	Reports	Ongoing (tested 2006, re test due 2009)
EMP 03 Hydraulic Loading Reduction	Reduction in hydraulic loading on WWTP	Ongoing monitoring of water usage throughout plant and comparison at group level to industry usage levels	Ongoing	All manager and supervisors	WWTP records, water records	Ongoing
EMP 04 Biological Loading Reduction	Reduction in biological loading on WWTP	Investigate methods of removing additional solid wastes material from influent at preliminary treatment stage.	March 2009	Group Environmental Manager	Plans, Records	Ongoing

2.2 continued - Objectives & Targets – 2009

Objective - Waste Management (Reduction, recycling, reuse, & safe disposal) – Table 2.1

Projects	Target	Summary	Deadline	Responsibility	Indicators	Status
EMP 05 Cardboard and Plastic Recycling	Segregation of cardboard materials for baling and recycling	Recycling of waste cardboard generated Recycling Bins/shredding for more efficient segregation and collection	July 2009 July 2009	Environmental Manager Enviro Manager	Records Bins on site	Ongoing Ongoing
EMP 06 Waste Management	Internal audit of all processing and utilities to ensure appropriate waste management	Ongoing monitoring and inspection of wastes arising and internal management practices	Ongoing	Department Managers and Supervisors	Monthly Area Inspections – EVR-14	Ongoing
EMP 07 Landfill Management	Reduce the volume of waste going to landfill	Ongoing review of possible alternative destination for waste reuse / recycling.	September 2009	Department Managers and Supervisors	Records	Ongoing
EMP 08 Treatment of Organic Waste	Organic Waste	Investigate on and off site treatment for organic waste streams.	December 2009	Group Environmental Manager	Group tracking and investigation of options to stabilise waste streams	Ongoing
EMP 09 Develop New Landbanks	New Landbanks	Continue process of identification and evaluation of suitable Land spread areas to ensure sustainability of land application	Annually	Environmental Manager	Landbank hectares approved by EPA	**New Landbanks added January '08**

2.2 continued - Objectives & Targets – 2009

Objective - Risk Control / Legislative Compliance – compliance with relevant environmental legislation – Table 2.2

Projects	Target	Summary	Deadline	Responsibility	Indicators	Status
EMP 10 Legislation Review	Review of current and proposed legislation and an assessment of its relevance to site activity.	Group Environmental manager prepares a legislation list and reviews impact of relevant legislation.	Quarterly	Group Environmental Manager	Legislative File	Ongoing
EMP 11 Waste Contractor Review	Waste Contractors and Transport Companies	Ongoing review of waste contractors licenses and register of licenses held on file.	Annually	Environmental Manager	Records	Ongoing
EMP 12 Supplier Awareness	Suppliers	Issue copy of Dawn Meats Environmental policy to all suppliers	April 2009	Environmental Manager	Correspondence File	Ongoing

2.2 continued - Objectives & Targets – 2009

Objective – Energy / reduction in Carbon Footprint – Table 2.3

Projects	Target	Summary	Deadline	Responsibility	Indicators	Status
EMP 13 Reduce Energy Usage	Lighting in all Chills, marshalling area and loading bay.	Chills and marshalling Area, Take every second Light out of operation.	Feb 2009	T. Murphy	No of lights in operation	Ongoing
	Steriliser operation	Loading bay, disconnect lights under twin rail.	Feb 2009	T. Murphy	Lights	Ongoing
		Evaluate current steriliser operations.	Feb 2009	T. Murphy, B. Hyland. C. Coakley		Ongoing
	Air Leaks	Maintenance operative to walk air line to identify and repair any air leaks.	Feb 2009	T. Murphy	Air Leaks Eliminated	Ongoing
	External lights	Review all external lights with a view to sensor suitability.	Feb 2009	P. Fitzpatrick, T. Murphy	No Of external lights on sensors	Ongoing
	Corridor lights and common areas	Install sensors in all corridors and other suitable areas.	Feb 2009	T. Murphy	Sensors in place	Ongoing
	Improve Energy Efficiency	Track energy consumption. Monitor and evaluate Gas, oil and electricity usages	Weekly	T. Murphy	KPI's Records, Weekly Energy Usage	Ongoing
	Compressed air	Install shut off valves to individual pieces of kit.	April 2009	T. Murphy	Valves in place	ongoing
	Flash gas Chill	Review chilling of flash gas to reduce load on compressors	February 2009	F. Dwane, C. Coakley	Review	Ongoing
	Tail washers	Remover air from tail washers and replace with counter balance system.	April 2009	T. Murphy	Counter balance in situ	Ongoing

2.2 continued - Objectives & Targets – 2009

Objective - Conservation of natural resources – Table 2.4

Projects	Target	Summary	Deadline	Responsibility	Indicators	Status
EMP 17 Reduce Water Consumption	Reduce Water Consumption	Track water usage throughout the plant. Monitor water usage in each department	Weekly	Department managers and supervisors	Records, Monthly Meetings	Ongoing
	Water Leaks	All leaking water identified checked and repaired	March 2009	Maintenance Manager	Water Leaks Eliminated	Ongoing

2.2 continued - Objectives & Targets – 2009

Objective - Promotion of Environmental Awareness – Table 2.5

Projects	**Target**	**Summary**	**Deadline**	**Responsibility**	**Indicators**	**Status**
EMP 20 Environmental Awareness	Awareness Signs	Signs to be displayed in various areas reminding staff to close all doors and turn off all lights	February 2009	Environmental Manager	Signs on display	Ongoing

3.0 Environmental Management Programme and objectives and targets – Summary

Dawn Meats (Exports) Ltd., Environmental Management Programme and Objectives and Targets are committed to ensuring a significant effort and more attention is paid to improvements in efficiency at the plant, in terms of energy consumption, water use and waste generation. The focus of the 2009 EMP will be largely in these areas, using the EMP as a management tool for planning and tracking the implementation of projects on site which lead to the overall achievement of the Dawn Group Environmental Policy, while ensuring compliance with the IPPC license remains a high priority.

A number of long-term on-going programmes initiated at the site will continue on an on-going basis to ensure compliance with the conditions of the IPPC licence and the site environmental management system.

The progress and plans for the future in meeting these objectives and targets are summarised below.

Table 3.1 Lists of Projects in EMP

Project	Title
EMP 01	Pipeline Testing
EMP 02	Bund Integrity Testing
EMP 03	Hydraulic Loading Reduction
EMP 04	Biological Loading Reduction
EMP 05	Cardboard and Plastic Recycling
EMP 06	Waste Management
EMP 07	Landfill Management
EMP 08	Treatment of organic waste
EMP 09	Develop new Landbanks
EMP 10	Legislation Review
EMP 11	Waste Contractor Review
EMP 12	Supplier Awareness
EMP 13	Reduce Energy Usage
EMP 17	Reduce Water Consumption
EMP 20	Environmental Awareness

EMP 01: Pipeline Testing and

Project Summary
A maintenance operative of the pipeline distribution systems carries out monthly-recorded visual inspections (EVR-12).

The inspection comprises a visual and physical (hand) inspection along the length of the pipeline system. Particular attention is paid to flanges, joints, seals and glands and through wall runs. The condition of pipe is noted with regard to corrosion and wear. The condition of any lagging is noted.

In the event that any leak is detected or significant corrosion/wear observed, the Maintenance Manager is notified. It is the responsibility of the Maintenance Manager to initiate and sign off on Corrective Action and in circumstances of significant leak or risk, notify the Technical Manager.

As a result of inspections being proceduralised, the potential for leaks going unnoticed has decreased significantly.

An external consultant is due to carry out a Pipeline inspection in July 2009 contracted by the Dawn Group and a report will be completed and sent to the EPA.

Status:
This project is **ongoing**.

EMP 02: Bund Integrity Testing

Project Summary
Underground Tank and Bunding:
An external consultant is due to carry out a Bund integrity assessment on the tallow, diesel, central heating bunds and an underground tank test in July 2009 contracted by the Dawn Group and a report will be completed and sent to the EPA.

Bunding reports were completed and were sent to the EPA in August 2006.

Status:
This project is **ongoing**.

EMP 03: Hydraulic Loading Reduction

Project Summary

Hydraulic loading rates define the rate wastewater enters the WWTP. It has been decided that no boilers or pumps will be turned on or activated during a non kill day unless requested by a senior manager. We have purchased a portable hot wash washer to facilitate any hot washing that may occur during these days.

Ongoing monitoring and recent records have shown a reduction in natural gas consumption of 15%. Weekly records are being compiled by maintenance manager and records are maintained and continually reviewed as KPI's.

Status

Ongoing

EMP 04: Biological Loading Reduction

Project Summary

A further review of our sticking area, blood collection, has been carried out by the blood company APC blood technologies and by Dawn Meats (Exports) Ltd. Some minor changes have been made with the addition of stop bars and sprays bars and splash guards have led to the maximum harvesting of 20 litres per head and our weekly calculations encourages this.

A new DAF unit has been sourced from within the Dawn Group and is to be installed in our green room waste area to help with the screening and removal of solid waste from our influent. The DAF unit is on site and installation is being organised between production, maintenance and environmental department.

Status

March 2009

EMP 05: Cardboard and Plastic Recycling

Project Summary

Maximising of practical recycling takes place at Dawn Meats (Exports) Ltd. There is a separate compactor for cardboard. Dawn Meats (Exports) Ltd bale all plastic separate and there is another compactor for general waste. All three channels of waste are removed by Veolia.

Contract shredding takes place throughout the year for office paper recycling for both Dawn Meats Group and Dawn Meats (Exports) Ltd. Ongoing monitoring of recycled cardboard and plastic is discussed quarterly at production meetings.

Status

July 2009

EMP 06: Waste Management

Project Summary
In 2008 Dawn Meats (Exports) Ltd did not increase the production of waste mainly due to the closure of the boning hall in December 2007. We have had discussions with Veolia waste services and with present national trends of cardboard, plastic recycling we are continuing with our present waste plan. Group environmental audits are carried out according to a scheduled plan and this is a useful tool to gauge the performance of Dawn Meats (Exports) Ltd waste management plan. There were a few non-compliances, in relation to the EMS, highlighted and these have since been addressed in a corrective action plan.

Status
Ongoing

EMP 07: Landfill Management

Project Summary
Identification and evaluation of the economic and technical feasibility of waste minimisation - reduction measures has been carried out. On the basis of feasible options being identified, a schedule for the implementation of these options was developed. The feasible options were as follows:

We are currently trying to reduce the volume of waste going to landfill. Currently glass, tin cans, plastic bottles and cardboard are being separated in the site canteen and sent for recycling. All office personnel have been instructed to reduce their paper usage and think before they print. All department heads and supervisors have received instructions and training on this procedure; to think before waste is binned.

Status
September 2009

EMP 08: Treatment of Organic Waste

Project Summary
The investigation of double pressing of our sludge produced at the Waste Water Treatment plant will lead to a reduction in volume and tonnage in total but will not lead to a reduction in sludge spread on NMP land.

Another proposal is the use of a centrifuge instead of a double press. Both of these projects have substantial capital layout and are only at the very early stages of discussion.

Status
December 2009

EMP 09: Develop New Land Banks

Project Summary

It has been decided at management level that any Landbank being added to the approved Landbank will only be accepted for a NMP once a year. Dawn Meats (Exports) Ltd ask the following questions; does the farmer own the land or have it leased for at least five years, its distance from the factory, the road route for trucks and large vehicles and that the land is not affiliated with other interests i.e. REPS or owned by another company. This process then allows Dawn Meats (Exports) Ltd to increase if necessary the land bank. The environmental consultants deal with the NMP's and submissions are made in one lot as requested by the EPA.

The nutrient Management plan is submitted to the Agency on an Annual basis. (Please note, a total review in line with the Nitrates Directive and S.I. No. 378 of 2006 have resulted in a complete overhaul of existing NMP's.

Table 3.2 - Main Steps in Nutrient Management Plan

Step 1	Sampling - soils to calculate soil P levels.
Step 2	Testing of sludge for nutrient levels
Step 3	Application rate per sample location ~ 2 hectares
Step 4	Mapping of the land bank
Step 5	Communications of the plan to the relevant personal
Step 6	Implementation of the plan
Step 7	Co-ordinating between the plant, farmers and contractors.
Step 8	Records, of all documentation
Step 9	Establish a Register of Organic Waste for Land spread

Status

Ongoing – Annually

EMP 10: Legislation Review

Project Summary

Ongoing review of current and proposed legislation and assessment of relevance at the site. The Group Environmental Manager prepares legislation list and review of impact of legislation. Ongoing review of waste contractors licences and register of waste contractors held on file. A Decommissioning Plan was established to be implemented in the event of site closure.

Status

Ongoing – Quarterly

EMP 11: Waste Contractor Review

Project Summary
There is an ongoing review of waste contractors licences and register of waste contractors. This is kept on file in the Technical Department.

Status:
Ongoing - Annually

EMP 12: Supplier Awareness

Project Summary
As part of the ongoing process of increasing environmental awareness all suppliers to Dawn Meats (Exports) Ltd will be issued a copy of Dawn Meats (Exports) Ltd environmental policy. This policy is signed off by the CEO of Dawn Meats Group.

Status:
April 2009

EMP 13: Reduce Energy Usage

Project Summary
Energy reduction in carbon footprint

- Lighting in all Chills, marshalling area and loading bay. - Chills and marshalling
- Area, Take every second Light out of operation.
- Steriliser operation - Loading bay, disconnect lights under twin rail. Evaluate current steriliser operations.
- Air Leaks - Maintenance operative to walk air line to identify and repair any air leaks.
- External lights - Review all external lights with a view to sensor suitability.
- Corridor lights and common areas - Install sensors in all corridors and other suitable areas.
- Improve Energy Efficiency - Track energy consumption. Monitor and evaluate Gas, oil and electricity usages
- Compressed air - Install shut off valves to individual pieces of kit.
- Flash gas Chill - Review chilling of flash gas to reduce load on compressors
- Tail washers - Remover air from tail washers and replace with counter balance system.

Status:
February to April 2009

EMP 17: Reduce Water Consumption

Project Summary

Water usage is monitored weekly and complied into weekly utility figures. Strategic water audits are carried out on our water softening and extra metering has been installed. Monitoring is continuing on an ongoing basis. This data was tracked over a six-month period in order to identify variations in the correlation between kill statistics and water use. The company will continue trending water use over time.

Status:
Ongoing - Weekly

All water leaks to be identified, checked and repaired.

Status:
March 2009

EMP 20: Legislation Awareness

Project Summary

All Dawn Meats (Exports) Ltd employees have received environmental induction training. As part of the ongoing process of increasing environmental awareness signs are to be placed on walls and doors, by maintenance, around the site which will serve to create awareness that all operatives, supervisors and Managers must close doors and to turn off lights as required. In doing so there are benefits both to the environment; a reduction in carbon output and a reduction in energy costs for Dawn Meats (Exports) Ltd.

Status:
February 2009

4.0 Emissions to Water Summary

Environmental monitoring data for the monitoring period January to December 2008 are summarised in the following sections. Data from the 2008 monitoring period, in accordance with EPA notification M179/gc07pg.doc dated 08/04/02 is in Appendix 4.

The raw effluent (comprising screened lairage slurry excess water, slaughter and other process waters and internal cleaning waters) flows by gravity to the Waste Water Treatment Plant at Queally Pig Slaughtering Ltd. (t/a Dawn Pork and Bacon IPPCL P0175-01). Here it is pumped through the initial rotary screen to the rest of the WWTP comprising of an activated sludge system. Treated wastewater is discharged directly into the River Suir from a discharge pipe.

Emissions to water are regulated under Condition 6.2 and Schedule 1 of the IPPCL as follows:

Table 4.1 Process Effluent Emissions – (ELV's)

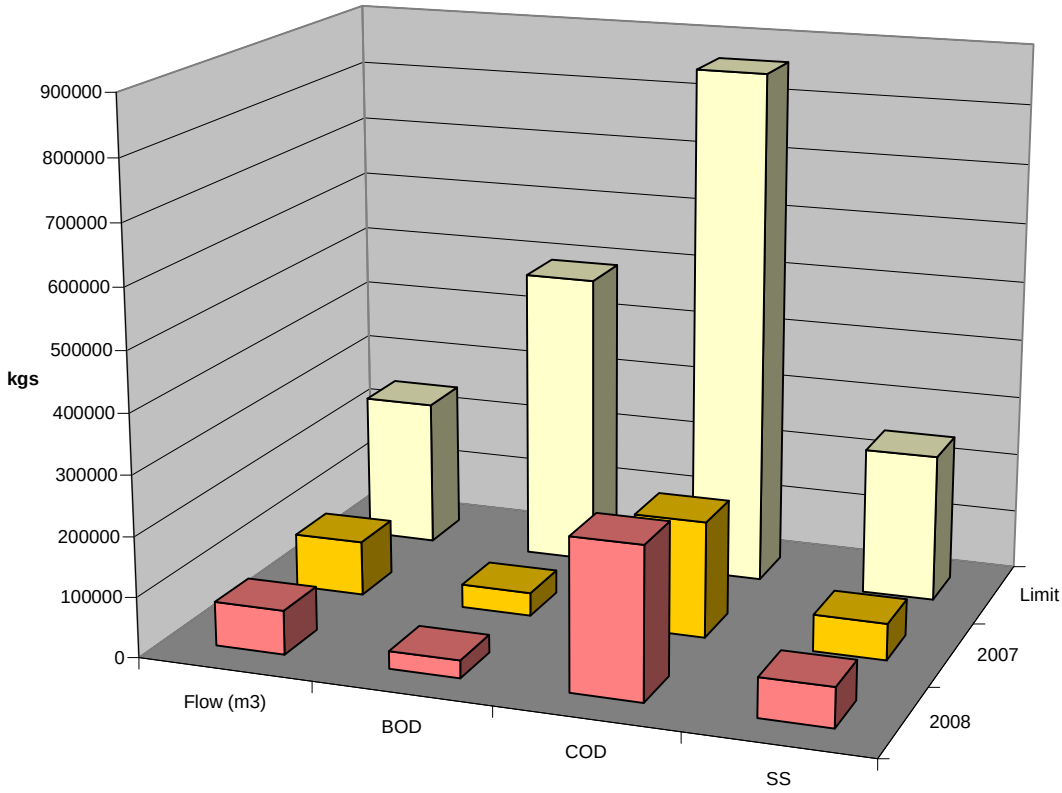
Emission Point Reference No.:	EW-1 (Pump Sump)	
Name of Receiving Waters:	Dawn Pork & Bacon Waste Water Treatment Plant	
Location:	Boundary of site as per figure 9.6 of IPPCL application.	
Volume to be emitted: Maximum in any one day: Maximum rate per hour:	 675 m^3 42 m^3	
Parameter	**Emission Limit Value (Concentration)**	**Daily Mass Emission Limit Value (kg)**
PH	6-8.5	(6-8.5)
Temperature	42°C	(42°C)
BOD (mg/l)	4000	1350
COD (mg/l)	7000	2362.5
Suspended Solids (mg/l)	2000	675
Nitrates (as N) (mg/l)	150	67.5
Total Ammonia (as N) mg/l	150	67.5
Total Phosphorus (as P) (mg/l)	200	47.25
Detergents (mg/l)	20	13.5
Oils, Fats and Grease (mg/l)	150	101.25

Table 4.2 Summary Mass Emission Data EW-1

Parameter	Mass Emission 2007 (kgs)	Mass Emission 2008 (kgs)	% Change 2007 v 2008	Permitted Mass Emission (kgs)
Flow (m^3)	91,362.8	73,250.4	-19.8%	246,375 m^3
BOD	38,729.5	29,371.8	-24.1%	492,750
COD	193,546.5	251,657.1	+30.0%	862,313
Suspended Solids	61,086.4	65,794.3	+7.7%	246,375
Nitrates (as N)	1,291.2	1,319.5	+2.1%	24,638
Total Ammonia (as N)	2,622.3	1,185.2	-54.8%	24,638
Total Phosphorus (as P)	1,702.8	1,011.4	-40.6%	17,246
Detergents	31.3	100.2	+220%	4,928
Oils, Fats & Greases	339.8	318.5	-6.2%	36,956

** Permitted mass emissions based on discharges at ELV and maximum daily flow*

Figure 2a Process effluent mass emissions 2008 v 2007



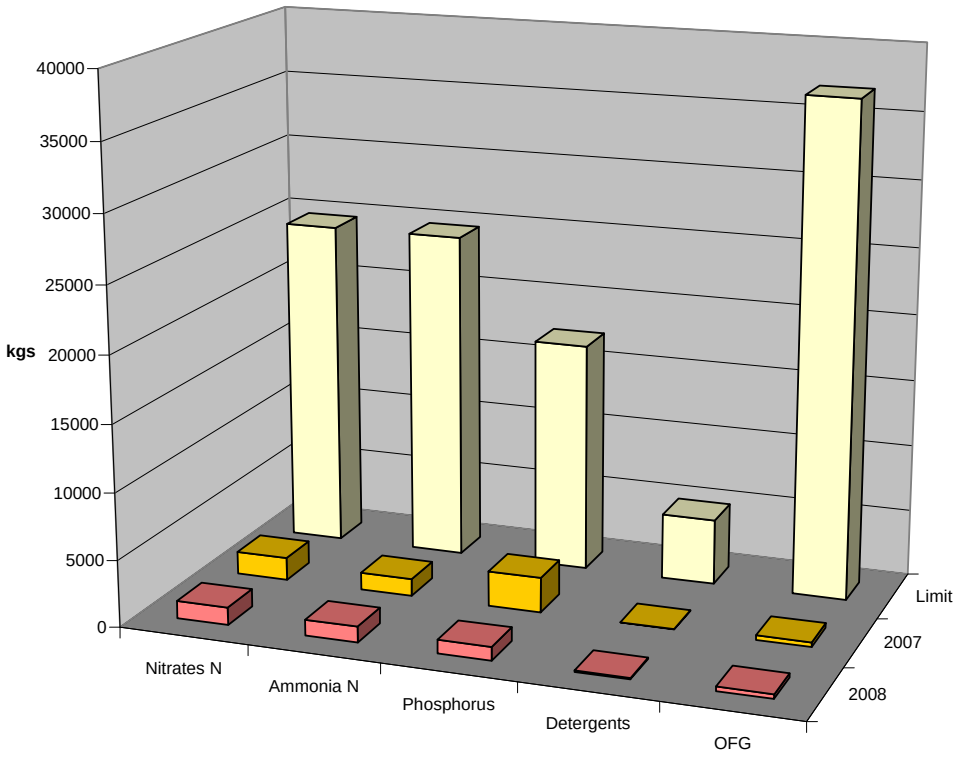


Figure 2b Process effluent mass emissions 2008 v 2007

Analysis:

In mass balance terms, as before, every parameter was below limits.

Using the figures in table 3, the following points will help in the analysis:

The Kill figures decreased in 2008, compared to 2007, by 14.5%, which highlighted a decrease in comparison to previous annual kill totals. This coupled with the closure of the boning hall resulted in a decreased flow rate of 19.8% for 2008 compared to 2007 figures.

The major action, which ensured that the process effluent conformances were adhered to, was the highlighting of the results in mass format. All parameters showed marked improvements with reductions in the following: **BOD** mass was reduced by 24.1% and the **Ammonia** by 54.8%.

Actions taken to minimise leakage of **detergents**, (from boot-wash suction pumps and cleaning) referred to in the previous AER, wasn't as successful this year, with an increase of 220%. As will be seen from Table 3, detergent mass emissions are still a small fraction of the permitted levels, evidence of our effort to minimise shocks to the WWTP. There were four increases in 2008, which included COD by 30%, Suspended Solids by 8%, Nitrates by 2% and detergents by 220%.

4.1 Details of Non-Compliances

There were no non-compliant samples (by *parameter*, not day) recorded during the 2008 monitoring period, of 1194 samples taken, giving an overall percentage compliance rate of 100% (versus 2007's 99.5% compliance).

The raw data and non-compliance summaries have been sent to the EPA under a different heading. It is noted that no individual samples exceeded emission limit values and the overall mass emission limits were not breached in 2008 (See Table 3).

The improvements can be seen across all test parameters now that the results are expressed in mass (concentration x flow) terms. This was agreed with the EPA during the 2007 site audit, with the result that during 2007 non-compliant results were virtually eliminated once flows were taken into account.

5.0 Surface Water Monitoring Summary

Surface water run off collected from a (a very limited) 'clean' yard and roof areas is discharged by gravity to a manhole (EW-3) and then flows into Dawn Pork and Bacon's surface water drainage system, which runs to the east of the site. The surface water finally discharges to the River Suir.

The layout of the site and the nature of the business demand that much of the roof and yard areas are fed to *foul sewers* (and thereafter to the effluent plant), which has greatly reduced the expected volume of surface water at EW-3. As outlined above Dawn Meats has made some progress in diverting a significant amount of roof-collected rainwater to the surface water system and further developments are continuing.

Analysis is carried out on a continuous, daily, monthly and quarterly basis for pH, COD, Total Ammonia, Suspended Solids, Oils, Fats and Greases and Conductivity, in accordance with Condition 9.1.4 and Schedule 3(i) off the site IPPCL. The results of monthly and quarterly surface water analysis are tabulated on Table 5.

Table 5.0 Surface water analytical results 2008

Month	Parameter			
	COD (mg/l)	NH3_N (mg/l)	OFG (mg/l)	SS (mg/l)
January	18			
February	11			
March	13	0.89	<1	0
April	14		<1	
May	15			
June	14		<1	
July	35			
August	14			
September	23	0.41	<1	0
October	20			
November	18			
December	20	0.26	<1	0
2008 Average	17.91	0.52	1	0

The results of analysis of surface water samples above are broadly similar to those reported for the previous monitoring period and are generally within expected levels for surface water run-off.

5.1 Details of Non-compliance

There are no emission limit values for surface water parameters set out in the IPPC licence.

Dawn Meats has, however, established warning and action levels for COD. The warning level for COD is 50mg/l and the action level is 100mg/l. As can be seen above, neither limit was exceeded during the 2008 monitoring period.

Accordingly, surface water discharges to the River Suir were within expected ranges during the reporting periods and were fully compliant.

6.0 Groundwater Monitoring Summary

There is a production well that meets the plant water demand, located within the Dawn Group Grannagh site perimeter.

This groundwater is monitored on an annual basis for the EU Drinking Water Directive parameters (see Appendix 1 for results). The results of analysis of some major environmental parameters are tabulated on Table 7.

Table 6.0 Results of groundwater analysis 2008 v 2007

	Nitrate (mg/l)	Phosphorus (mg/l)	Total Ammonia (mg/l)
EU MAC (80/778/EEC)	50	5.00	0.30
2007	8.12	<0.01	<0.02
2008	7.79	<0.10	<0.21

Nitrates showed a slight decrease of 0.33mg/l between 2007 and 2008. Phosphorus showed an increase between 2007 and 2008 and Ammonium showed an increase between 2007 and 2008. All parameter results remained at a low concentration.

7.0 Waste Management

Management of solid non-hazardous and hazardous wastes are recorded in accordance with Condition 7 of the IPPC Licence.

Summary data from the waste management register are tabulated on Table 7. Totalled annual data is set out below:

Table 7.0 Summary Data of Waste Management Register

Waste Type	**Reporting Period**	
	2007	**2008**
Total quantity of waste produced in calendar year (Tonnes)	**13053.95**	**9902.07**
total quantity of waste disposed of on-site	0	0
total quantity of waste disposed of off-site	37.6	23.96
total quantity of waste recovered on-site	0	0
total quantity of waste recovered off-site	13016.35	9878.11
Non-Hazardous	**2007**	**2008**
Quantity of non-hazardous waste produced in calendar year (T)	**9477.43**	**7118.97**
quantity of non-hazardous waste disposed of on-site	0	0
quantity of non-hazardous waste disposed of off-site	37.6	23.96
quantity of non-hazardous waste recovered on-site	0	0
quantity of non-hazardous waste recovered off-site	9439.83	7142.94
Hazardous	**2007**	**2008**
Quantity of hazardous waste produced in calendar year (Tonnes)	**3576.52**	**2783.099**
quantity of hazardous waste disposed of on-site	0	0
quantity of hazardous waste disposed of off-site	0	0
quantity of hazardous waste recovered on-site	0	0
quantity of hazardous waste recovered off-site	3576.52	2783.099

(The above data includes organic waste arisings at the site.)

Organic waste (see below) management is carried out in accordance with a Nutrient Management Plan (copy of which has been submitted to the EPA under separate cover 21/12/07, 08/05/08 and 17/09/08 for the 2008 land-spreading season).

The information tabulated on Table 8 below have been extracted from the AER electronic report format, a copy of which has been transmitted to the Agency via internet in March 2009.

The following materials are considered to be by-products of the slaughtering process, and accordingly have not been included in the waste tables:

- Pet Food (lungs, liver, trachea, tripe, sweetbread, greaves and heart)
- Hides
- Tallow

A comparison of summary information on non-hazardous and hazardous wastes between 2008 and 2007 is presented graphically on Figure 3 below.

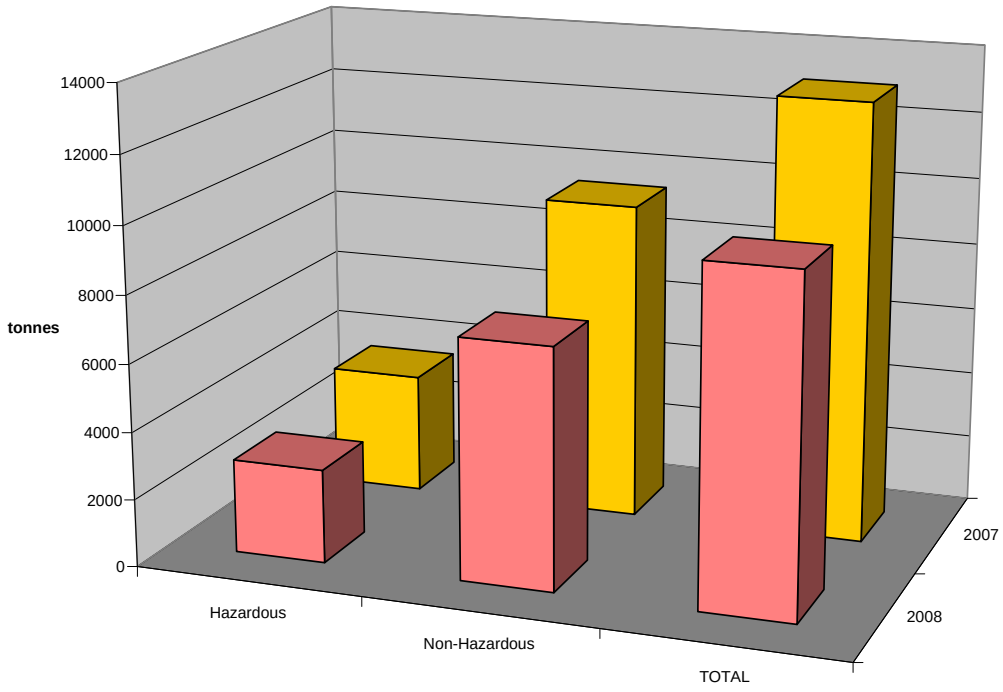


Figure 3 Comparison of Waste Arising 2008 v 2007

Table 8.0 Summary Waste Arisings (2008)

EWC Code	Hazardous (Yes/No)	Description of Waste	Quantity (t/year)	NACE Code	Location of Disposal/ Recovery	Name of Waste Disposal Recovery Contractor
02 02 02	Yes	SRM	2783.099	R11	(b)Dunlavin, Co. Wicklow	Dublin Products Ltd, Dunlavin, Co. Wicklow
13 08 02	Yes	Waste Oil	0.0	R13	(b)Portlaoise, Co. Laois	Enva Ireland Ltd, Portlaoise, Co. Laois
20 01 21	Yes	Fluorescent Tubes	0.0	R4	(b) Athy, Co Kildare	Irish Lamp Recycling Co. Ltd, Athy, Co Kildare.
02 02 02	No	Offals	2089.632	R11	(b) Ballyhaunis, Co Mayo	Western Proteins Ltd, Ballyhaunis, Co Mayo
02 02 02	No	Bone	0	R11	(b) Ballyhaunis, Co Mayo	Western Proteins Ltd, Ballyhaunis, Co Mayo
02 02 99	No	Blood	799.144	R11	(b) Silverwood, Craigavon, Armagh	APC Technology, Silverwood, Craigavon, Co. Armagh
02 02 04	No	Organic Waste	4198.04	R10	(b) Local Area	Approved Farmers as per submitted Nutrient Management Plan
02 02 99	No	General Refuse	23.96	D1	(b) 6 Cross Roads Business Park, Waterford	Veolia Environmental Services, Six Cross Roads Business Park, Waterford. (Disposal at Powerstown, Portlaoise, Youghal, Rossmore Landfills - In Counties Carlow, Laois and Cork respectively
02 02 99	No	Drum& other plastics	0	R3	(c) Rossendale, Lancashire, UK	Holchem Ltd, Rossendale, Lancashire, UK
15 01 01	No	Corrugated Card	8.2	R3	(b) 6 Cross Roads Business Park, Waterford	Veolia Environmental Services, Six Cross Roads Business Park, Waterford. (Recycling at Veolia Environment Services, Dock Road, Limerick)

Analysis: To aid analysis, the main waste streams are detailed below.

Table 9.0 - Details of Main Waste Streams

Waste Type	2008 Tonnes	2007 Tonnes	Change Tonnes	% Change
Specified Risk Material	2783.09	3576.52	- 793.43	- 22.1%
Waste Offals	2089.63	2801.64	- 712.01	-
Bones (non-SRM)	0	1046.41	- 1046.41	-
Sub total Offals & Bones	**2089.63**	**3848.05**	**1758.42**	**- 45.6%**
Blood	799.14	1002.28	- 203.14	- 20.2%
Organic Waste	4198.04	4576.56	- 378.52	- 8.2%

Decreases in SRM/Category 1: This year there was a decrease in the amount of Specified Risk Material sent off site compared to the last number of years. The main effect of this was a reduction in DAF-condemned carcases, which can lead to reduction in batch disposals of product, blood and pet food to SRM. Also there was a reduction in the kill numbers in 2008.

Progressive improvements in the WWTP rotating plate screen has increased the solid waste yield, through diversions from the process effluent.

The decrease in Cat 3 waste was due to a reduction in the annual kill numbers. Finding product markets for some hitherto waste products can be difficult due to market conditions.

Recycling: The cardboard recycling yields increased by 13.8% during the period, compared to last year this is due to a more economical use of cardboard. Meanwhile, customer specifications shifting towards reusable plastic trays for packaging have reduced cardboard usage.

Conclusion: There was no bone production in 2008 with the closure of the boning hall.

Market conditions dictate the levels of Cat 3 waste as seen above with the experience in offal.

However, the important improvement is the reduction in loading to the WWTP (and thereby to the Suir River).

7.1 Organic Waste Management

Organic waste at the facility arises from the treatment of process wastewater and from the dewatering of the paunch contents of slaughtered animals.

Liquid effluents from the processing and washing operations drain to an on-site wastewater treatment plant. The plant is a biological treatment (activated sludge) system, under the IPPC licence of Dawn Pork & Bacon Ltd.

Paunch contents are dewatered on a press and the liquid arising from the pressing along with cattle lairage cleaning and yard cleaning is diverted to the treatment plant.

Organic waste is stored at an approved off-site storage facility and land spread in accordance with a Nutrient Management Plan (NMP). (See appendix 3)

The quantity of organic waste arisings for the calendar year 2008 is tabulated on Table 10.0.

The total quantity of organic waste generated in the 2008 reporting period (4198 tonnes) was down 8.2% from 2007 (4576 tonnes).

Table 10.0 Organic Waste Arising 2008

Month	WWTP Sludge(kgs)	DM Paunch (kgs)	DM Lairage (kgs)
January	0	85060	0
February	0	77700	0
March	389000	70400	0
April	335800	94880	0
May	0	85560	0
June	566180	68600	0
July	145000	33900	804500
August	1080480	71840	0
September	0	78100	0
October	0	83560	0
November	0	60980	0
December	0	66500	0
2008	**2516460**	**877080**	**804500**
	Total 4198040		

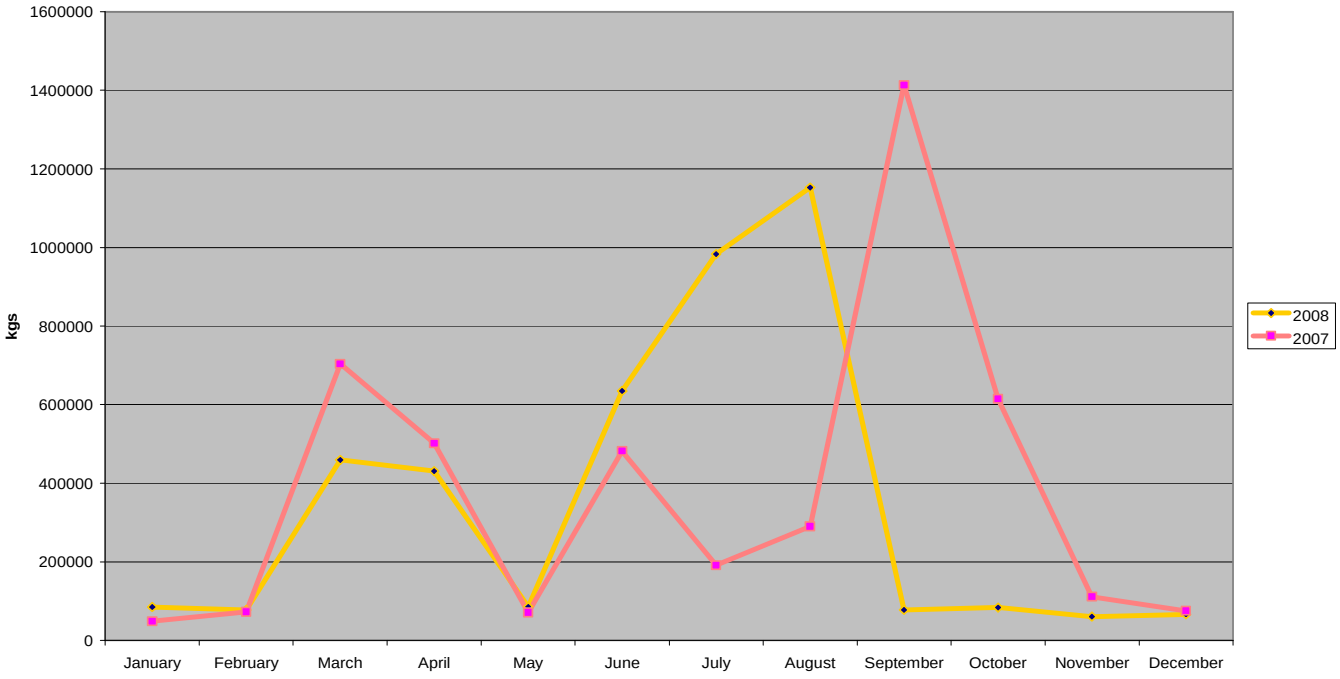


Figure 4 Comparison of Monthly Organic Waste Arisings 2008 v 2007

Analysis:

The decrease in organic waste removed from site for land spreading is due to a number of factors:

- Kill Pattern - The decrease in beef kill numbers directly affects the paunch yields, but it is often the pattern of kill, which has the greatest effect on lairage yields. A series of relatively low numbers slaughtered per day - as typified the kill pattern for much of 2008 - allows for holding cattle for relatively short periods in the lairage and a resultant drop in slurry yield per head. Fewer kill days with larger kills per day, as was resumed in 2008, requires on average a longer penning time and yields a greater volume of slurry per head.
- WWTP sludge is generally fairly static, as both Dawn Meats and Dawn Pork and Bacon feed the WWTP. Timing of sludge disposal has some effect here also.

8.0 Resource Consumption

Data relating to energy consumption (electricity, light fuel oil and natural gas) and water for the 2008 reporting period are summarised in the following sections. Data for 2007 is provided for comparative purposes.

Data are presented as annual totals and per head of cattle slaughtered.

8.1 Summary Energy Consumption

Table 11.0 Summary Energy Consumption Data

Year	Oil Consumption (l)		Electricity Consumption (kWH)		Natural Gas Consumption (kWH)	
	Total Usage	L/head	Total Usage	kWH/head	Total Usage	kWH/head
2008	32,252	0.72	3,108,000	70.03	4,781,605	107.75
2007	35,286	0.68	3,886,000	74.93	5,366,975	103.49

Analysis:
The company has studied the experience with ***natural gas*** and proposed an initial target usage per head of 8 litres, i.e. based on 2007's usage rate. There was a 4.1% increase on gas usage per head for 2008 compared to 2007.

Total ***electricity consumption*** decreased in 2008 by 20% and electricity usage per head decreased from 74.93 to 70.03 kilowatt-hours per head.

Conclusion: Increased mechanisation of the line, extension of chilled areas and other product safety enhancements such as maintaining sterilisation temperature equipment due to regulatory requirements have also increased relative electricity demand. The fact that refrigeration demand at the plant remains relatively constant under changing production levels has much to do with per head dis-improvement. The WWTP is also supplied with power from the Dawn Meats site and would have had a constant demand also. Natural gas consumption matched the increase in the total kill number along with the staggered start times for production and close management of the boilers increases the constant demand for electricity for much of the factory and the increased mechanisation of production militates against efficiency. For November 2008 to March 2009 full availability of maximum demand services, full targets were being met and maximum bonus were forecast for five days a week between 4.30pm and 7.30pm i.e. generating electricity in a controlled manner.

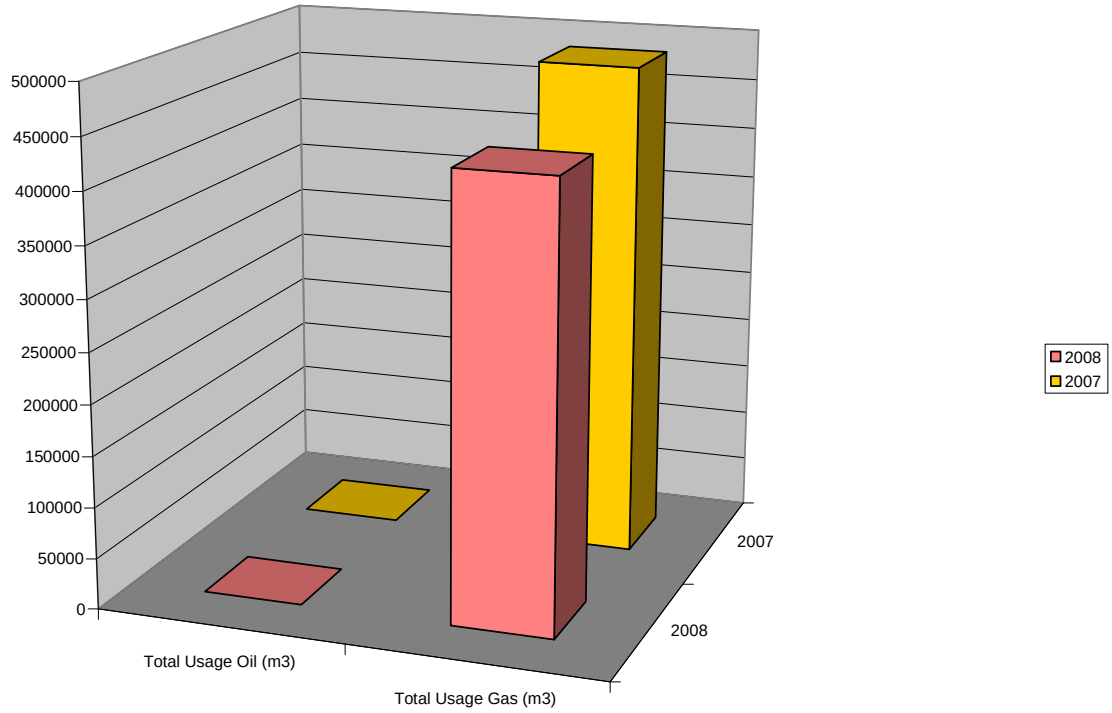


Figure 5 Oil & Gas consumption 2008 v 2007

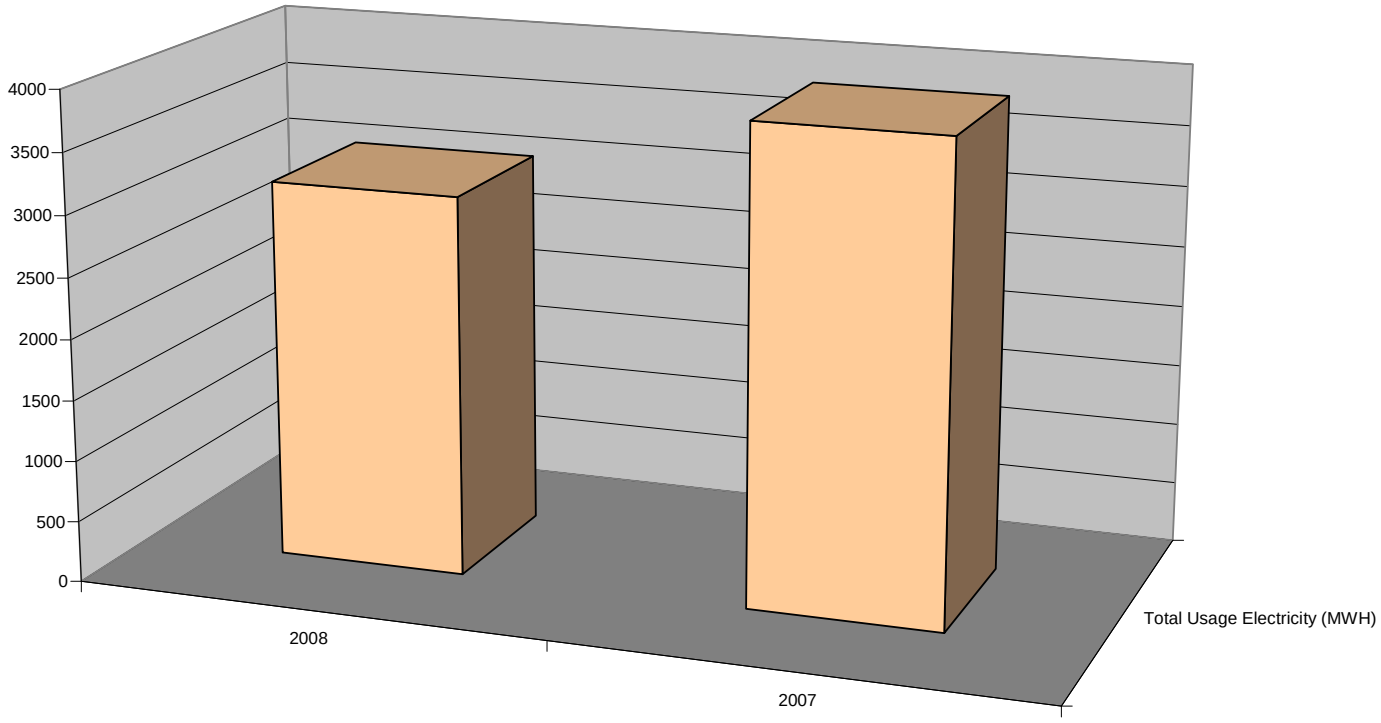


Figure 6 Electricity usage 2008 v 2007

8.2 Water Usage

Water consumption for the site for the 2008 reporting period is summarised on Table 12.0. Plant water demand is met from an on-site well and municipal water supply.

Data for the same period in 2007 is provided for comparison purposes. Plant water usage is typically directly related to production levels, although developing DAF hygiene regulations are tending to increase water usage per head in recent years.

Table 12.0 Plant water consumption

Year	Water Consumption (m^3)	
	Total Usage	**m^3/head**
2008	98604 (-14%)	2.22 (+0.4%)
2007	114759	2.21

Analysis: As was forecast in last year's report, the decrease in the numbers killed, saw a dis-improvement in water usage per head slaughtered. There was 0.4% more **m^3** of water used per head in 2008 compared to 2007. The situation is being continuously monitored.

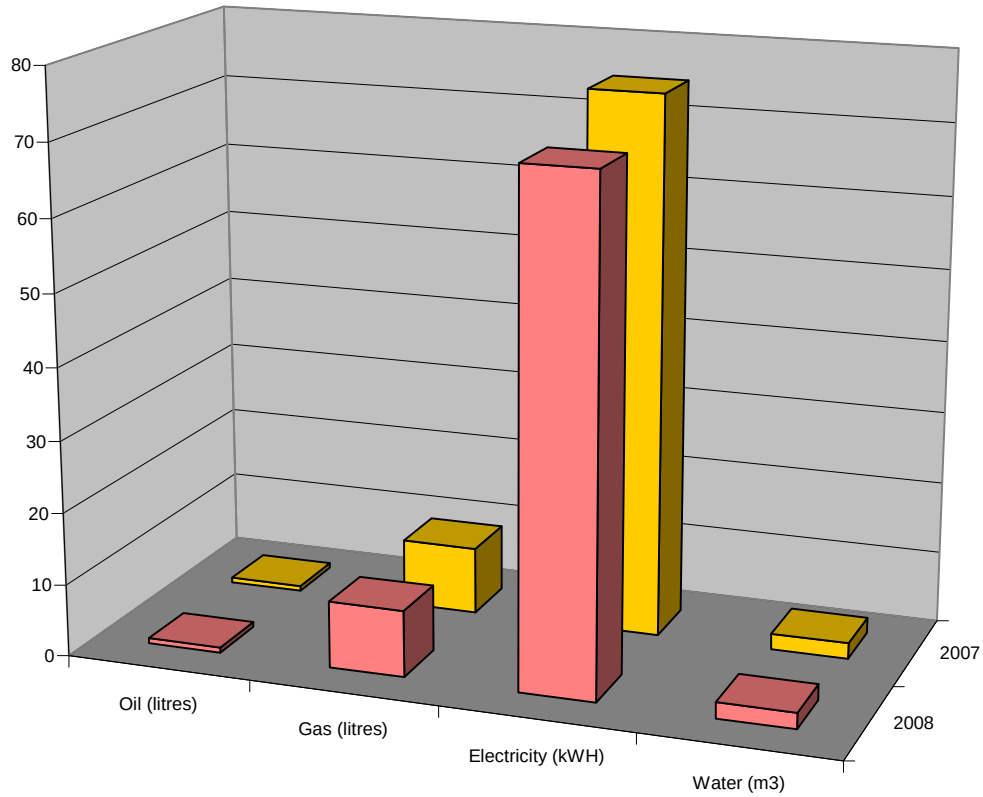


Figure 7 Resource usage per head 2008 v 2007

9.0 Complaints Summary

There was no complaints received by Dawn Meats (Exports) Ltd during the period of 2008.

9.1 EPA Audits 2008

The EPA performed no unannounced audits in 2008.

10.0 Reported Incidents Summary

There were no environmental incidents at the factory during the reporting period 2008.

Appendix 1 Ground Water Analysis

1st Section of the Report

Analysis Report

Dawn Pork and Bacon

Ms Joanne Day
Grannagh
Co. Waterford

DAWN MEATS (EXPORTS) LTD.
DATE RECEIVED: 6/5/08
APPROVED BY: D Hewlett
REF. No: Non-Monitoring File

microchem
LABORATORIES

Clogherane
Dungarvan
Co Waterford
Ireland
Tel : +353 (0) 58 48300
Fax: +353 (0) 58 42855

Email: info@microchem.ie
http://www.microchem.ie

Sample No: **28003875**

PO Number: 24111
Batch Number: Water Sample 03/03/08
Sample Type: Water (Well Sample)
Description:
Date Received: 03-Apr-2008

Analysis End Date: 10-Mar-2008

TEST	RESULT	Parameter Value
* Colour - SOP 2.1014	10Hazen	
* Fluoride - Palin Test	0.2mg/L	0.8mg/L
* Iron (as Fe) - AAS	28.4µg/L	200 µg/L
* Nitrate (as N) - SOP 2.1179	7.79mg/L	50mg/L
* Odour - APHA 20th Edition	Odourless	
* Oxidisable Substances - EP 2008	Complies	
* Sodium (as Na) - AAS	28mg/L	200mg/L
Ammonium -NH4 - SOP 2.1179	0.21mg/L	0.30mg/L
Chloride - SOP 2.1179	50mg/L	250 mg/L
Nitrite (as N) - SOP 2.1179	ND<0.02mg/L	0.5mg/L
pH - SOP 2.1025	7.15	
Sulphate - SOP 2.1179	38mg/L	250mg/L

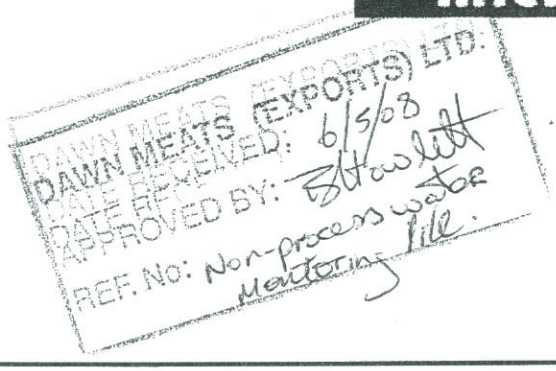
The above results comply with the directive (J. Day 12.3.08)

Note: H_2O checked against European Communities (drinking water) (No.2) Regulations 2007

Received 17-04-08

Analysis Report

Dawn Pork and Bacon
Ms Joanne Day
Grannagh
Co. Waterford



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Fax: +353 (0) 58 42855

Email: info@microchem.ie
http://www.microchem.ie

Sample No: 28003874

PO Number: 24111
Batch Number: Water Sample, 03/03/08
Sample Type: WATER
Description:
Date Received: 03-Mar-2008

Analysis End Date: 15-Apr-2008

TEST	RESULT	Parametric Value
* Aluminium (as Al) - Subcontracted Laboratory Method	<200 µg/L	200 µg/L
* Arsenic - Subcontracted Laboratory Method	<10µg/L	10 µg/L
* Cadmium - Subcontracted Laboratory Method	<5 µg/L	5 µg/L
* Chromium - Sub-contracted	<50 µg/L	50 µg/L
* Copper - Sub-contracted	<2.0 mg/L	2 mg/L
* Cyanide (Sub) - Subcontracted Laboratory Method	<50 µg/L	50 µg/L
* Lead - Subcontracted	<10µg/L	25 µg/L
* Manganese (as Mn) - Sub-contracted	<50 µg/L	50 µg/L
* Mercury (as Hg) - Subcontracted Laboratory Method	<1.0 µg/L	1.0 µg/L
* Nickel - Sub-contracted	<20 µg/L	20 µg/L
* Organochlorine Pesticides - Subcontracted Laboratory Method	<0.10 µg/L	
* Organophosphorus Pesticide Residues - Subcontracted Laboratory Method	<0.10 µg/L	
* Polychlorinated Biphenyls - Subcontracted	<0.005µg/L	
* Polycyclicaromatic Hydrocarbons - Subcontracted Laboratory Method	<0.10µg/L	0.10 µg/L

Note: H_2O checked against European Communities (Drinking Water) (no.2) Regs 2007

Appendix 2 AER Summary Data Table 2008

Environmental Protection Agency

AER Returns Worksheet

Version 1.1.03

REFERENCE YEAR	2008

1. FACILITY IDENTIFICATION

Parent Company Name	Dawn Meats (Exports) Limited
Facility Name	Dawn Meats (Exports) Limited
PRTR Identification Number	P0179
Licence Number	P0179-01

Waste or IPPC Classes of Activity

No.	class_name

Address 1	Dawn Meats (Exports) Limited
Address 2	Grannagh
Address 3	Waterford
Address 4	
Country	Ireland
Coordinates of Location	25681142
River Basin District	
NACE Code	1011
Main Economic Activity	Processing and preserving of meat
AER Returns Contact Name	Paul Fitzpatrick
AER Returns Contact Email Address	brendan.howlett@dawnmeats.com
AER Returns Contact Position	Operations Manager
AER Returns Contact Telephone Number	051-309200
AER Returns Contact Mobile Phone Number	
AER Returns Contact Fax Number	051-309292
Production Volume	0.0
Production Volume Units	
Number of Installations	0
Number of Operating Hours in Year	0
Number of Employees	0
User Feedback/Comments	
Web Address	

2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name

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 ?	

4.2 RELEASES TO WATERS

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 concerns Releases from your facility

RELEASES TO WATERS								
POLLUTANT			Method Used		QUANTITY			
No. Annex II	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

SECTION B : REMAINING PRTR POLLUTANTS

RELEASES TO WATERS								
POLLUTANT			Method Used		QUANTITY			
No. Annex II	Name	M/C/E	Method Code	Designation or Description	Emission Point 1	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
			short designation of the relevant standard (e.g. EN 14385:2004)					
12	Total nitrogen	M			1319.52	1319.52	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)

RELEASES TO WATERS								
POLLUTANT			Method Used		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
303	BOD	C	short designation of the method used: ETS, IPCC, UNECE/EMEP		29371.8	29371.8	0.0	0.0
306	COD	C	short designation of the method used: ETS, IPCC, UNECE/EMEP		251657.1	251657.1	0.0	0.0
240	Suspended Solids	C	short designation of the method used: ETS, IPCC, UNECE/EMEP		66678.8	66678.8	0.0	0.0
327	Nitrate (as N)	C	short designation of the method used: ETS, IPCC, UNECE/EMEP		1319.52	1319.52	0.0	0.0
238	Ammonia (as N)	C	short designation of the method used: ETS, IPCC, UNECE/EMEP		1185.28	1185.28	0.0	0.0
308	Detergents (as MBAS)	C	short designation of the method used: ETS, IPCC, UNECE/EMEP		100.25	100.25	0.0	0.0
314	Fats, Oils and Greases	C	short designation of the method used: ETS, IPCC, UNECE/EMEP		318.53	318.53	0.0	0.0

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

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

[PRTR# : P0178] [Facility Name : Down Meats (Exports) Limited] [Filename : P0178_2008(1).xml] [Return Year : 2008]

Transfer Destination	European Waste Code	Hazardous	Quantity T/Year	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Name and Licence / Permit No. of Recoverer / Disposer / Broker	Address of Recoverer / Disposer / Broker	Name and Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)	Licence / Permit No. of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
Within the Country	02 02 02	No	2783099.0	SRM	R11	M	Weighed	Onsite in Ireland	Dublin Products Ltd	Dunlavin, Co Wicklow		
Within the Country	13 08 02	Yes	0.0	Waste Oil	R13	M	Weighed	Onsite in Ireland	Enva Ireland Ltd	Portlaoise, Co. Laois	Enva Ireland Ltd, Portlaoise, Co. Laois	WCP/KK/059(A)/07 W0184-01
Within the Country	20 01 21	Yes	0.0	Fluorescent	R4	M	Weighed	Onsite in Ireland	Irish Lamp Recycling Co. Ltd	Athy, Co. Kildare	Irish Lamp Recycling Co. Ltd, Athy, Co. Kildare	WCP/KK/030(A)/07 WCP/KE/61C/05C
Within the Country	02 02 02	No	2089632.0	Offals	R11	M	Weighed	Onsite in Ireland	Western Proteins	Ballyhaunis, Co Mayo		
Within the Country	02 02 02	No	0.0	Bone	R11	M	Weighed	Onsite in Ireland	Western Proteins	Ballyhaunis, Co Mayo		
Within the Country	02 02 99	No	788144.0	Blood	R11	M	Weighed	Onsite in Ireland	APC - Regal Processors	Silverwood I.E., Craigavon, Co Armagh		
Within the Country	02 02 04	No	4198040.0	Organic Waste	R10	M	Weighed	Onsite in Ireland	Agri-life	Lismore, Co Waterford		
Within the Country	02 02 99	No	23960.0	General Refuse	D1	M	Weighed	Onsite in Ireland	Veolia Environmental Services	Six Cross Roads, Waterford		
To Other Countries	**02 02 99**	**No**	0.0	Drums and other Plastic	R3	M	Weighed	Abroad	Holchem Ltd	Rossendale, Lancashire, UK		
Within the Country	15 01 01	No	8200.0	Corrugated Cardboard	R3	M	Weighed	Onsite in Ireland	Veolia Environmental Services	Six Cross Roads, Waterford		

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

Appendix 3 Annual Land Spreading Summary

Organic Waste Register
Part II Annual Land Spreading Summary Per Farm

Company: Dawn Meats Exports Ltd IPPCL P0179-01 & Dawn Pork & Bacon IPPCL P0175-01

Product: WWTP Sludge & Lairage Slurry
Nutrient Content of Waste: 5.632 kg N/ tonne 2.112 kg P/tonne

Landowner: George Jennings, Island View, Fornaght, Dunmore East, Co. Waterford
Nutrient Management Plan Reference:
NMP for Dawn Meats Ltd, Grannagh, Co. Kilkenny (14/12/07)
Submitted to EPA 21/12/07

	TOTAL	Woodstown Lwr. 2-3:			Woodstown Upp. 1-5:				Ballyglar Fornaght:4-5,7-9							Kilcop Upr:1-5			Ballygunnermore:1-3			Raheen:2-3,8-9,11-14										
Permitted Load (m^3):	**1814.1**	**86.3**	**198.4**	**37.5**	**46.0**	**53.1**	**36.2**	**151.5**	**49.0**	**42.2**	**30.5**	**30.0**	**65.1**	**57.0**	**161.8**	**84.1**	**29.2**	**78.6**	**17.1**	**148.6**	**33.0**	**156.4**	**41.3**	**12.6**	**15.4**	**36.7**	**34.2**	**34.2**	**48.1**			
Spreading Dates	Waste Removed from Licensee & Spread (m^3)*	Plot2	Plot3	Plot1	Plot2	Plot3	Plot4	Plot5	Plot6	Plot4	Plot5	Plot7	Plot8	Plot9	Plot1-2	Plot3	Plot4	Plot5	Plot1	Plot2	Plot3	Plot2	Plot3	Plot8	Plot9	Plot11	Plot12	Plot13	Plot14	Weather	48 hour forecast	Name of Haulier	Name of Spreader
July 9 2008	**145.00**	0.00	0.00	0.00	21.20	0.00	0.00	0.00	49.00	42.20	0.00	0.00	32.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			AgriLife	AgriLife
Capacity Remaining	*1669.10*	*86.30*	*198.40*	*37.50*	*24.80*	*53.10*	*36.20*	*151.50*	*0.00*	*0.00*	*30.50*	*30.00*	*32.50*	*57.00*	*161.80*	*84.10*	*29.20*	*78.60*	*17.10*	*148.60*	*33.00*	*156.40*	*41.30*	*12.60*	*15.40*	*36.70*	*34.20*	*34.20*	*48.10*				
August 8 2008	**155.80**	0.00	0.00	0.00	0.00	0.00	4.30	151.50	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			AgriLife	AgriLife
Capacity Remaining	*1513.30*	*86.30*	*198.40*	*37.50*	*24.80*	*53.10*	*31.90*	*0.00*	*0.00*	*0.00*	*30.50*	*30.00*	*32.50*	*57.00*	*161.80*	*84.10*	*29.20*	*78.60*	*17.10*	*148.60*	*33.00*	*156.40*	*41.30*	*12.60*	*15.40*	*36.70*	*34.20*	*34.20*	*48.10*				
August 26-29 2008	**475.90**	86.00	198.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	84.10	29.20	78.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			AgriLife	AgriLife
Capacity Remaining	*1037.40*	*0.30*	*0.40*	*37.50*	*24.80*	*53.10*	*31.90*	*0.00*	*0.00*	*0.00*	*30.50*	*30.00*	*32.50*	*57.00*	*161.80*	*0.00*	*0.00*	*0.00*	*17.10*	*148.60*	*33.00*	*156.40*	*41.30*	*12.60*	*15.40*	*36.70*	*34.20*	*34.20*	*48.10*				
Total Spread 2008	**776.70**	0.00	0.00	0.00	21.20	0.00	4.30	151.50	49.00	42.20	0.00	0.00	32.60	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
	Plots	Plot2	Plot3	Plot1	Plot2	Plot3	Plot4	Plot5	Plot6	Plot6	Plot5	Plot7	Plot8	Plot9	Plot1-2	Plot3	Plot4	Plot5	Plot1	Plot2	Plot3	Plot2	Plot3	Plot8	Plot9	Plot11	Plot12	Plot13	Plot14				

* On advised equivalency of 1000kg = 1m^3 organic waste

Signed : G Walsh **Date:** 29/10/08

Deputy Environmental Co-ordinator

Organic Waste Register
Part II - Annual Land Spreading Summary Per Farm

Company: Dawn Meats Exports Ltd IPPCL P0179-01 & Dawn Pork & Bacon IPPCL P0175-01

Product: WWTP Sludge & Lairage Slurry
Nutrient Content of Waste: 5.632 kg N/ tonne 2.112 kg P/tonne

Landowner: Joe Mulhern, Lemybrien, Kilmacthomas, Co Waterford
Nutrient Management Plan Reference:
NMP for Dawn Meats Ltd, Grannagh, Co. Kilkenny (14/12/07)
Submitted to EPA 21/12/07

	TOTAL	Newtown Plots 9, 11, 14						
Permitted Load (m^3):	**207.0**	**27.9**	**70.9**	**108.2**				
Spreading Dates	Waste Removed from Licensee & Spread (m^3)*	Plot9	Plot11	Plot14	Weather	48 hour forecast	Name of Haulier	Name of Spreader
Aug-27	**100.00**	27.90	70.90	1.20			AgriLife	AgriLife
Capacity Remaining	*107.00*	0.00	0.00	107.00				
Total Spread 2008	**100.00**	27.90	70.90	1.20				
Newtown Plots 9,11,14:		Plot9	Plot11	Plot14				

* On advised equivalency of 1000kg = $1m^3$ organic waste

Signed : J Howlett
Deputy Environmental Co-ordinator

Date: 29/10/08

Organic Waste Register
Part II - Annual Land Spreading Summary Per Farm

Company: Dawn Meats Exports Ltd IPPCL P0179-01 & Dawn Pork & Bacon IPPCL P0175-01

Product: WWTP Sludge & Lairage Slurry
Nutrient Content of Waste: 5.632 kg N/ tonne 2.112 kg P/tonne

Landowner: James Power, Ballinamoynatragh, Dunmore East, Co. Waterford
Nutrient Management Plan Reference:
NMP for Dawn Meats Ltd, Grannagh, Co. Kilkenny (14/12/07)
Submitted to EPA 21/12/07

	TOTAL	Kilmacleague Plots 1&2 6-10:						Ballynamoyntragh Plots 7-13:						Keiloge Plots 1-10									Keiloge Plots: 13-21											
Permitted Load (m^3):	**1194.5**	**36.8**	**153.5**	**42.0**	**26.2**	**65.6**	**88.8**	**54.5**	**18.5**	**16.1**	**37.3**	**46.8**	**62.5**	**177.0**	**31.8**	**26.1**	**33.7**	**11.9**	**8.8**	**23.4**	**10.3**	**12.1**	**28.6**	**8.9**	**17.5**	**14.4**	**13.0**	**58.4**	**13.9**	**16.4**	**11.1**	**7.1**	**18.3**	**2.5**				
Spreading Dates	Waste Removed from Licensee & Spread (m^3)*	Plot1&2	Plot6	Plot7	Plot8	Plot9	Plot10	Plot7	Plot8	Plot9	Plot10	Plot11A	Plot11B	Plot12	Plot13	Plot1	Plot2	Plot3	Plot4	Plot5	Plot6	Plot7	Plot8	Plot9	Plot10	Plot13	Plot14	Plot15	Plot16	Plot17	Plot18	Plot19	Plot20	Plot21	Weather	48 hour forecast	Name of Haulier	Name of Spreader
March 6-7 2008	**389.00**	0.00	0.00	0.00	8.00	65.00	0.00	0.00	0.00	0.00	0.00	46.00	62.00	177.00	31.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Sunny	Sunny	AgriLife	AgriLife
Capacity Remaining	*805.5*	36.80	153.50	42.00	18.20	0.60	88.80	54.50	18.45	16.11	37.26	0.80	0.50	0.80	0.80	26.10	33.70	11.90	8.80	23.40	10.30	12.10	28.60	8.90	17.50	14.40	13.00	58.40	13.90	16.40	11.10	7.10	18.30	2.50	Sunny	Sunny	AgriLife	AgriLife
July 1-9 2008	**804.52**	36.80	153.50	42.00	18.20	0.60	88.80	54.50	18.45	16.11	37.26	0.80	0.50	0.00	0.60	26.10	33.70	11.90	8.80	23.40	10.30	12.10	28.60	8.90	17.50	14.40	13.00	58.40	13.90	16.40	11.10	7.10	18.30	2.50				
Capacity Remaining	*1.0*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.80*	*0.20*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*				
Total Spread 2008	**1193.52**	36.80	153.50	42.00	26.20	65.60	88.80	54.50	18.45	16.11	37.26	46.80	62.50	177.00	31.60	26.10	33.70	11.90	8.80	23.40	10.30	12.10	28.60	8.90	17.50	14.40	13.00	58.40	13.90	16.40	11.10	7.10	18.30	2.50				
Kilmacleague Plots 1&2 6-10: and Ballyn		Plot1&2	Plot6	Plot7	Plot8	Plot9	Plot10	Plot7	Plot8	Plot9	Plot10	Plot11A	Plot11B	Plot12	Plot13	Plot1	Plot2	Plot3	Plot4	Plot5	Plot6	Plot7	Plot8	Plot9	Plot10	Plot13	Plot14	Plot15	Plot16	Plot17	Plot18	Plot19	Plot20	Plot21				

Keiloge Plots 1-10 & 13-21

* On advised equivalency of 1000kg = $1m^3$ organic waste

Signed : E Howlett **Date:** 29/10/08

Depufy Environmental Co-ordinator

Organic Waste Register
Part II - Annual Land Spreading Summary Per Farm

Company: Dawn Meats Exports Ltd IPPCL P0179-01 & Dawn Pork & Bacon IPPCL P0175-01

Product: WWTP Sludge & Lairage Slurry
Nutrient Content of Waste: 5.632 kg N/ tonne 2.112 kg P/tonne

Landowner: Brigid Wall, Newtown, Kilmacthomas, Co Waterford
Nutrient Management Plan Reference:
NMP for Dawn Meats Ltd, Grannagh, Co. Kilkenny (14/12/07)
Submitted to EPA 21/12/07

	TOTAL	Newtown Plots 1-4 & 8,10,12,13,15:												
Permitted Load (m^3):	**560.1**	**41.7**	**99.6**	**69.6**	**58.2**	**48.0**	**32.7**	**34.2**	**105.6**	**70.5**				
Spreading Dates	Waste Removed from Licensee & Spread (m^3)*	Plot1	Plot2	Plot3	Plot4	Plot8	Plot10	Plot12	Plot13	Plot15	Weather	48 hour forecast	Name of Haulier	Name of Spreader
14-Apr-08	**32.34**	0.00	0.00	0.00	0.00	32.34	0.00	0.00	0.00	0.00	Sunny	Sunny	AgriLife	AgriLife
Capacity Remaining	*527.76*	41.70	99.60	69.60	58.20	15.66	32.70	34.20	105.60	70.50				
17-Apr-08	**177.30**	41.70	99.60	20.00	0.00	16.00	0.00	0.00	0.00	0.00	Sunny	Sunny	AgriLife	AgriLife
Capacity Remaining	*350.46*	*0.00*	*0.00*	*49.60*	*58.20*	*32.00*	*32.70*	*34.20*	*105.60*	*70.50*				
3-9 June 2008	**348.60**	0.00	0.00	49.60	58.00	0.00	32.00	34.00	105.00	70.00	Sunny	Sunny	AgriLife	AgriLife
Capacity Remaining	*1.86*	*41.70*	*99.60*	*20.00*	*0.20*	*48.00*	*0.70*	*0.20*	*0.60*	*0.50*				
Total Spread 2008	**558.24**	41.70	99.60	20.00	0.00	16.00	0.00	0.00	0.00	0.00				
Newtown Plots 1-4 & 8,10,12,13,15:		Plot1	Plot2	Plot3	Plot4	Plot8	Plot10	Plot12	Plot13	Plot15				

* On advised equivalency of 1000kg = $1m^3$ organic waste

Signed : _____ **Date:** 29/10/08

Deputy Environmental Co-ordinator

Organic Waste Register
Part II - Annual Land Spreading Summary Per Farm

Company: Dawn Meats Exports Ltd IPPCL P0179-01 & Dawn Pork & Bacon IPPCL P0175-01

Product: WWTP Sludge & Lairage Slurry
Nutrient Content of Waste: 5.632 kg N/ tonne 2.112 kg P/tonne

Landowner: Eamonn Doherty, Ballyrobin, Ferrybank, Co Waterford
Nutrient Management Plan Reference:
NMP for Dawn Meats Ltd, Grannagh, Co. Kilkenny (14/12/07)
Submitted to EPA 21/12/07

	TOTAL	Ballynamona Plots 1-14:																
Permitted Load (m^3):	**560.3**	**13.8**	**22.5**	**25.1**	**24.6**	**33.0**	**44.8**	**35.0**	**88.8**	**50.8**	**37.9**	**59.8**	**49.0**	**30.7**	**44.5**			
Spreading Dates	Waste Removed from Licensee & Spread (m^3)*	Plot1	Plot2	Plot3	Plot4	Plot5	Plot6	Plot7	Plot8	Plot9	Plot10	Plot11	Plot12	Plot13	Plot14	Weather	48 hour forecast	Name of Haulier	Name of Spreader
June 3 2008	**206.00**	13.80	22.50	25.10	24.60	33.00	44.80	35.00	7.20	0.00	0.00	0.00	0.00	0.00	0.00	Sunny	Sunny	AgriLife	AgriLife
Capacity Remaining	*354.30*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*81.60*	*50.80*	*37.90*	*59.80*	*49.00*	*30.70*	*44.50*				
August 8 2008	**348.78**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	81.60	50.80	37.90	59.80	49.00	30.70	38.98	Sunny	Sunny	AgriLife	AgriLife
Capacity Remaining	*5.52*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*5.52*				
Total Spread 2008	**554.78**	13.80	22.50	25.10	24.60	33.00	44.80	35.00	7.20	0.00	0.00	0.00	0.00	0.00	0.00				
Ballynamona Plots 1-14:		Plot1	Plot2	Plot3	Plot4	Plot5	Plot6	Plot7	Plot8	Plot9	Plot10	Plot11	Plot12	Plot13	Plot14				

* On advised equivalency of 1000kg = $1m^3$ organic waste

Signed : T Howlett **Date:** 29/10/08.

Deputy Environmental Co-ordinator

Organic Waste Register
Part II - Annual Land Spreading Summary Per Farm

Company: Dawn Meats Exports Ltd IPPCL P0179-01 & Dawn Pork & Bacon IPPCL P0175-01

Product: Abattoir squeezed paunch
Nutrient Content of Waste: 4.994 kg N/ tonne 1.544 kg P/tonne

Landowner: William Simon (Pip) Ryan, Newbawn, New Ross, Co. Wexford
Nutrient Management Plan Reference:
NMP for Dawn Meats Ltd, Grannagh, Co. Kilkenny (05/12/07)
Submitted to EPA 21/12/07

	TOTAL	Newbawn Plots 1-18:																			
Permitted Load (m^3):	**1733.4**	**89.7**	**100.3**	**8.6**	**108.9**	**15.4**	**66.7**	**100.7**	**80.0**	**208.6**	**122.7**	**188.9**	**91.9**	**164.3**	**151.6**	**160.9**	**74.2**				
Spreading Dates	Waste Removed from Paunch Site & Spread (m^3)*	Plot1	Plot2	Plot5	Plot7	Plot8	Plot9	Plot10	Plot11	Plot12A	Plot12B	Plot13	Plot14	Plot15	Plot16	Plot17A	Plot18	Weather	48 hour forecast	Name of Haulier	Name of Spreader
February 12 2008	**60.00**	60.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	Sunny	Sunny	Agrilife	S Ryan
Capacity Remaining	*1673.40*	*29.70*	*100.30*	*8.60*	*108.90*	*15.40*	*66.70*	*100.70*	*80.00*	*208.60*	*122.70*	*188.90*	*91.90*	*164.30*	*151.60*	*160.90*	*74.20*				
August 28 2008	**1673.40**	29.70	100.30	8.60	108.90	15.40	66.70	100.70	80.00	208.60	122.70	188.90	91.90	164.30	151.60	160.90	74.20	Sunny	Sunny	Agrilife	S Ryan
Capacity Remaining	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*				
	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00				
Capacity Remaining	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*	*0.00*				
Total Spread 2008	**1733.40**	89.70	100.30	8.60	108.90	15.40	66.70	100.70	80.00	208.60	122.70	188.90	91.90	164.30	151.60	160.90	74.20				
Newbawn Plots 1-18:		Plot1	Plot2	Plot5	Plot7	Plot8	Plot9	Plot10	Plot11	Plot12A	Plot12B	Plot13	Plot14	Plot15	Plot16	Plot17A	Plot18				

* On advised equivalency of 1000kg = $1m^3$ organic waste

Signed : **Date:** 29/10/08

Deputy Environmental Co-ordinator

Organic Waste Register
Part II - Annual Land Spreading Summary Per Farm (Paunch)

Company: Dawn Meats Exports Ltd IPPCL P0179-01 & Dawn Pork & Bacon IPPCL P0175-01

Product: Abattoir squeezed paunch
Nutrient Content of Waste: 4.994 kg N/ tonne 1.544 kg P/tonne

Landowner: William Simon (Pip) Ryan, Newbawn, New Ross, Co. Wexford
Nutrient Management Plan Reference:
NMP for Dawn Meats Ltd, Grannagh, Co. Kilkenny (05/12/07)
Submitted to EPA 21/12/07

Total volume of organic waste that can be spread on to the farm 2008 (m^3), Plots 1-18: 1733.4

Month	Paunch Removed from Licence Holder(kg)	Name of Haulier	Name of Spreader	Spread (m3)*	Cumulative Total Stored (m3)*	Permitted Loading Remaining (m3)*	Date Spread	Weather	48 hour forecast	Name of haulier	Name of spreader
Stored on farm from last spreading in October 2007	0	Dalton	AgriLife	0	0.00	1733.4					
Jan-08	85060	Dalton	AgriLife	0	85.06	1733.4					
Feb-08	77700	Dalton	AgriLife	60	102.76	1673.4	Paunch spread on 12/02/2008	Sunny	Sunny	Agrilife	S Ryan
Mar-08	70400	Dalton	AgriLife	0	173.16	1673.4					
Apr-08	94880	Dalton	AgriLife	0	268.04	1673.4					
May-08	85560	Dalton	AgriLife	0	353.60	1673.4					
Jun-08	68600	Dalton	AgriLife	0	422.20	1673.4					
Jul-08	33900	Dalton	AgriLife	0	456.10	1673.4					
Aug-08	71840	Dalton	AgriLife	1673.4	-1145.46	0	Paunch spread on 28/08/2008	Sunny	Sunny	Agrilife	S Ryan
Sep-08	78100	Dalton	AgriLife	0	-1067.36	0					
Oct-08	83560	Dalton	AgriLife	0	-983.80	0					
Nov-08	60980	Dalton	AgriLife	0	-922.82	0					
Dec-08	66500	Dalton	AgriLife	0	**-856.32**	**0**	At end Dec 2008				
TOTALS:	**877080**			**1733.4**							

* On advised equivalency of 1000kg = 1m^3 organic waste

Signed : _____ **Date:** 5/1/09
Deputy Environmental Co-ordinator

Appendix 4 Process Effluent Monitoring 2008

DAWN MEATS PROCESS EFFLUENT ANALYSIS - IPPCL P0179-01
(By Concentration and By Mass)

Month: January 2008

Date	Flow (675m3)	BOD (4000mg/l)	BOD (1350kg)	COD (7000 mg/l)	COD (2362kg)	SS (2000mg/l)	SS (675kg)	A (150mg/l)	A (67.5kg)	P (200mg/l)	P (47.25kg)	N (150mg/l)	N (67.5kg)	Det (20mg/l)	Det (13.5kg)	OFG (150mg/l)	OFG (101.2kg)	pH (6.0 8.5)	Temp (<42oC)	
01/01/2008																				
02/01/2008	307																			
03/01/2008	92	3200	294.4	4750	437	1060	97.52	66	6.072	69	6.348	105	9.66	0.23	0.0212	5	0.46	7.56	11	
04/01/2008	254																			
05/01/2008	100			3760	376	800	80											7.42	11	
06/01/2008																				
07/01/2008	269			4610	1240.09	1260	338.94											7.25	11	
08/01/2008	110																			
09/01/2008	364	3250	1183	4890	1779.96	1560	567.84	52	18.928	66	24.024	90	32.76	0.36	0.131	15	5.46	7.14	11	
10/01/2008	68																			
11/01/2008	269			4800	1291.2	1960	527.24											7.53	11	
12/01/2008																				
13/01/2008																				
14/01/2008	279			5300	1478.7	1010	281.79											7.36	11	
15/01/2008	103																			
16/01/2008	438	2250	985.5	4950	2168.1	1420	621.96	84	36.792	88	38.544	80	35.04	0.1	0.0438	12	5.256	7.57	11	
17/01/2008	83																			
18/01/2008	472			4720	2227.84	1420	670.24											7.45	11	
19/01/2008																				
20/01/2008																				
21/01/2008	300			6430	1929	1060	318											7.23	11	
22/01/2008	105																			
23/01/2008	430	2593	1114.99	4540	1952.2	885	380.55	101	43.43	64	27.52	115	49.45	5.51	2.3693	121	52.03	7.25	11	
24/01/2008	112																			
25/01/2008	386			5230	2018.78	1255	484.43											7.45	11	
26/01/2008																				
27/01/2008																				
28/01/2008	307			5130	1574.91	1236	379.452											7.23	11	
29/01/2008	68																			
30/01/2008	418	2260	944.68	4820	2014.76	1040	434.72	84	35.112	60	25.08	120	50.16	0.56	0.2341	12	5.016	7.25	11	
31/01/2008	81																			
																		7.31	11	Totals
Average	235.4			4140	974.7	1360	320.1913											14	14	109
# Tests	23		5		14		14		5		5		5		5		5	0	0	0
NCR	0		0		0		0		0		0		0		0		0			

DAWN MEATS PROCESS EFFLUENT ANALYSIS - IPPCL P0179-01
(By Concentration and By Mass)

Month: February 2008

Date	Flow (675m3)	BOD (4000mg/l)	BOD (1350kg)	COD (7000 mg/l)	COD (2362kg)	SS (2000mg/l)	SS (675kg)	A (150mg/l)	A (67.5kg)	P (200mg/l)	P (47.25kg)	N (150mg/l)	N (67.5kg)	Det (20mg/l)	Det (13.5kg)	OFG (150mg/l)	OFG (101.2kg)	pH (6.0 8.5)	Temp (<42oC)
01/02/2008	283																		
02/02/2008																			
03/02/2008																			
04/02/2008	288			3150	248.85	1635	129.165											7.23	11
05/02/2008	79																		
06/02/2008	382	659	86.988	5150	679.8	1920	253.44	93	12.276	76	10.032	130	17.16	5.04	0.6653	3	0.396	7.25	11
07/02/2008	132																		
08/02/2008	349			4270	1490.23	1650	575.85											7.31	11
09/02/2008																			
10/02/2008																			
11/02/2008	332			6310	757.2	1470	176.4											7.23	11
12/02/2008	120																		
13/02/2008	393	3025	299.475	4580	453.42	1750	173.25	87	8.613	86	8.514	115	11.385	2.3	0.2277	5.2	0.5148	7.25	11
14/02/2008	99																		
15/02/2008	329			6400	2105.6	860	282.94											7.31	11
16/02/2008																			
17/02/2008																			
18/02/2008	344			5210	609.57	1360	159.12											7.00	11
19/02/2008	117																		
20/02/2008	463	2532	260.796	5110	526.33	1235	127.205	92	9.476	75	7.725	130	13.39	3.82	0.3935	9	0.927	7.25	11
21/02/2008	103																		
22/02/2008	380			5720	2173.6	780	296.4											7.02	11
23/02/2008																			
24/02/2008																			
25/02/2008	390			6790	760.48	1075	120.4											7.84	11
26/02/2008	112																		
27/02/2008	525	2401	602.651	6550	1644.05	1065	267.315	84	21.084	70	17.57	135	33.885	4	1.004	73	18.323	7.36	11
28/02/2008	251																		
29/02/2008	429			5190	2226.51	1475	632.775											7.54	11
Average	281.0		312.5		1139.6		266.2		12.9		11.0		19.0		0.6		5.0	7.3	11.0 Totals
# Tests	21		4		12		12		4		4		4		4		4	12	12 93
NCR	0		0		0		0		0		0		0		0		0	0	0 0

DAWN MEATS PROCESS EFFLUENT ANALYSIS - IPPCL P0179-01
(By Concentration and By Mass)

Month: March 2008

Date	Flow (675m3)	BOD (4000mg/l)	BOD (1350kg)	COD (7000 mg/l)	COD (2362kg)	SS (2000mg/l)	SS (675kg)	A (150mg/l)	A (67.5kg)	P (200mg/l)	P (47.25kg)	N (150mg/l)	N (67.5kg)	Det (20mg/l)	Det (13.5kg)	OFG (150mg/l)	OFG (101.2kg)	pH (6.0 8.5)	Temp (<42oC)
01/03/2008																			
02/03/2008																			
03/03/2008	386			6670	586.96	1290	113.52											7.07	11
04/03/2008	88																		
05/03/2008	493	2020	212.1	5960	625.8	1260	132.3	102	10.71	73	7.665	135	14.175	6.88	0.7224	12	1.26	7.00	11
06/03/2008	105																		
07/03/2008	543			3360	1824.48	1190	646.17											7.14	11
08/03/2008																			
09/03/2008																			
10/03/2008	323			4950	559.35	1225	138.425											7.07	11
11/03/2008	113																		
12/03/2008	481	2056	355.688	6790	1174.67	1690	292.37	81	14.013	65	11.245	120	20.76	0.36	0.0623	9	1.557	7.00	11
13/03/2008	173																		
14/03/2008	55			5030	276.65	1250	68.75											7.14	11
15/03/2008																			
16/03/2008																			
17/03/2008																		7.07	11
18/03/2008	284			5350	2321.9	850	368.9												
19/03/2008	434																		
20/03/2008	473	1353	74.415	3420	188.1	1275	70.125	79	4.345	87	4.785	110	6.05	16.28	0.8954	5	0.275	7.00	11
21/03/2008	55			4870	267.85	1250	68.75												
22/03/2008																		7.14	11
23/03/2008																			
24/03/2008																			
25/03/2008	8																		
26/03/2008	485	1756	730.496	4930	2050.88	875	364	63	26.208	94	39.104	95	39.52	9.5	3.952	3	1.248	7.23	11
27/03/2008	416			4750	1976	1200	499.2											7.65	
28/03/2008	72																		11
29/03/2008																			
30/03/2008																			
31/03/2008	325			6180	2008.5	1695	550.875											7.26	11
Average	279.6		343.2		1155.1		276.1		13.8		15.7		20.1		1.4		1.1	7.1	11.0 Totals
# Tests	19		4		12		12		4		4		4		4		4	12	12 91
NCR	0		0		0		0		0		0		0		0		0	0	0 0

DAWN MEATS PROCESS EFFLUENT ANALYSIS - IPPCL P0179-01
(By Concentration and By Mass)

Month: April 2008

Date	Flow (675m3)	BOD (4000mg/l)	BOD (1350kg)	COD (7000 mg/l)	COD (2362kg)	SS (2000mg/l)	SS (675kg)	A (150mg/l)	A (67.5kg)	P (200mg/l)	P (47.25kg)	N (150mg/l)	N (67.5kg)	Det (20mg/l)	Det (13.5kg)	OFG (150mg/l)	OFG (101.2kg)	pH (6.0 8.5)	Temp (<42oC)
01/04/2008	115																		
02/04/2008	432	1751	183.855	5580	585.9	1420	149.1	102	10.71	93	9.765	117	12.285	15	1.575	15.55	1.63275	7.42	11
03/04/2008	105																		
04/04/2008	323			6410	2070.43	1460	471.58											7.36	11
05/04/2008																			
06/04/2008																			
07/04/2008	255			5470	464.95	1640	139.4											7.69	11
08/04/2008	85																		
09/04/2008	447	3232	339.36	6860	720.3	1750	183.75	76	7.98	106	11.13	105	11.025	14.5	1.5225	18.5	1.9425	7.74	11
10/04/2008	105																		
11/04/2008	215			5750	1236.25	1430	307.45											7.13	11
12/04/2008																			
13/04/2008																			
14/04/2008	410			6760	1047.8	1350	209.25											7.68	11
15/04/2008	155																		
16/04/2008	402	2762	334.202	5932	717.772	1265	153.065	96	11.616	95	11.495	120	14.52	16	1.936	25	3.025	7.70	11
17/04/2008	121																		
18/04/2008	398			5920	2356.16	1630	648.74											7.13	11
19/04/2008																			
20/04/2008																			
21/04/2008	333			1470	183.75	1140	142.5											7.23	11
22/04/2008	125																		
23/04/2008	483	1089	212.355	5600	1092	1160	226.2	90	17.55	112	21.84	90	17.55	17	3.315	28	5.46	7.25	11
24/04/2008	195																		
25/04/2008	628			3730	2342.44	975	612.3											7.13	11
26/04/2008																			
27/04/2008																			
28/04/2008	417			4750	2265.75	1405	670.185											7.25	11
29/04/2008	477	3316	613.46	6600	1221	1375	254.375	145	26.825	64	11.84	150	27.75	17	3.145	28	5.18	7.14	11
30/04/2008	185																		
Average	**291.4**		**336.6**		**1254.2**		**320.6**		**14.9**		**13.2**		**16.6**		**2.3**		**3.4**	**7.4**	**11.0**
# Tests	**21**		**5**		**14**		**14**		**5**		**5**		**5**		**5**		**5**	**13**	**13**
NCR	**0**		**0**		**0**		**0**		**0**		**0**		**0**		**0**		**0**	**0**	**0**

Totals
105
0

DAWN MEATS PROCESS EFFLUENT ANALYSIS - IPPCL P0179-01
(By Concentration and By Mass)

Month: May 2008

Date	Flow (675m3)	BOD (4000mg/l)	BOD (1350kg)	COD (7000 mg/l)	COD (2362kg)	SS (2000mg/l)	SS (675kg)	A (150mg/l)	A (67.5kg)	P (200mg/l)	P (47.25kg)	N (150mg/l)	N (67.5kg)	Det (20mg/l)	Det (13.5kg)	OFG (150mg/l)	OFG (101.2kg)	pH (6.0 8.5)	Temp (<42oC)
01/05/2008	517																	7.14	11
02/05/2008	201			6500	1306.5	1360	273.36												
03/05/2008																			
04/05/2008																			
05/05/2008																		7.20	17.2
06/05/2008	303			4610	2125.21	1390	640.79												
07/05/2008	461	3785	598.03	6240	985.92	1170	184.86	149	23.542	111	17.538	150	23.7	12.5	1.975	10.6	1.6748	7.50	16.1
08/05/2008	158																		
09/05/2008	337			6760	2278.12	750	252.75											6.90	19.1
10/05/2008																			
11/05/2008																			
12/05/2008	355			5240	1173.76	1330	297.92											6.96	19.6
13/05/2008	224																		
14/05/2008	467	2671	486.122	6420	1168.44	1615	293.93	102	18.564	87	15.834	105	19.11	14.4	2.6208	4.4	0.8008	7.05	16.6
15/05/2008	182																		
16/05/2008	350			4340	1519	1040	364											7.01	16.2
17/05/2008																			
18/05/2008																			
19/05/2008	289			4440	705.96	840	133.56											6.91	19.2
20/05/2008	159																		
21/05/2008	428	1651	283.972	4430	761.96	1060	182.32	82	14.104	100	17.2	130	22.36	6.6	1.1352	1.5	0.258	7.01	17.2
22/05/2008	172																		
23/05/2008	221			5100	1127.1	900	198.9											7.02	15.2
24/05/2008																			
25/05/2008																			
26/05/2008	646			6120	1291.32	430	90.73											7.44	15.7
27/05/2008	211																		
28/05/2008	448	2794	606.298	5510	1195.67	1980	429.66	50	10.85	87	18.879	65	14.105	7.1	1.5407	11.2	2.4304	7.06	17.2
29/05/2008	217																		
30/05/2008	647			2910	1882.77	1000	647											7.02	15.2
31/05/2008																			
Average	333.0		493.6		1347.8		306.9		16.8		17.4		19.8		1.8		1.3	7.1	16.6
# Tests	21		4		13		13		4		4		4		4		4	13	13
NCR	0		0		0		0		0		0		0		0		0	0	0

Totals: 97 / 0

Record Sheet EVR08
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Approved by: C Coakley

DAWN MEATS PROCESS EFFLUENT ANALYSIS - IPPCL P0179-01
(By Concentration and By Mass)

Month: June 2008

Date	Flow (675m3)	BOD (4000mg/l)	BOD (1350kg)	COD (7000 mg/l)	COD (2362kg)	SS (2000mg/l)	SS (675kg)	A (150mg/l)	A (67.5kg)	P (200mg/l)	P (47.25kg)	N (150mg/l)	N (67.5kg)	Det (20mg/l)	Det (13.5kg)	OFG (150mg/l)	OFG (101.2kg)	pH (6.0 8.5)	Temp (<42oC)
01/06/2008																			
02/06/2008																		7.29	19.8
03/06/2008	353			3390	1379.73	1185	482.295												
04/06/2008	407																	7.21	19.7
05/06/2008	128	1344	545.664	1950	791.7	1360	552.16	77	31.262	68	27.608	65	26.39	12	4.872	28	11.368		
06/06/2008	406																	6.60	19.8
07/06/2008	406			5750	2334.5	1135	460.81												
08/06/2008																		7.05	19.7
09/06/2008	321			3090	475.86	1655	254.87												
10/06/2008	154																	7.05	19.2
11/06/2008	351	2235	230.205	2120	218.36	1200	123.6	82	8.446	98	10.094	130	13.39	13	1.339	2.8	0.2884		
12/06/2008	103																	7.04	18.4
13/06/2008	459			3480	1597.32	1445	663.255												
14/06/2008																		7.02	19.2
15/06/2008																			
16/06/2008	349			4900	553.7	1430	161.59												
17/06/2008	113																	7.18	20.2
18/06/2008	433	2806	305.854	2580	281.22	1360	148.24	78	8.502	74	8.066	17	1.853	12.75	1.3898	9.8	1.0682		
19/06/2008	109																	6.98	21.4
20/06/2008	447			3400	1519.8	1030	460.41												
21/06/2008																		7.22	19.8
22/06/2008																		7.06	18.6
23/06/2008	399			4130	1891.54	1355	620.59											7.18	20
24/06/2008	458			4170	2018.28	1325	641.3												
25/06/2008	484	1310	548.89	4790	2007.01	1275	534.225	108	45.252	96.5	40.4335	24	10.056	10	4.19	6.25	2.61875	7.29	17.1
26/06/2008	419			4760	1994.44	880	368.72												
27/06/2008	156																		
28/06/2008																			
29/06/2008																			
30/06/2008																			
Average	322.8		407.7		1312.6		420.9		23.4		21.6		12.9		2.9		3.8	7.1	19.5
# Tests	20		4		13		13		4		4		4		4		4	13	13
NCR	0		0		0		0		0		0		0		0		0	0	0

Totals: 96 / 0

DAWN MEATS PROCESS EFFLUENT ANALYSIS - IPPCL P0179-01
(By Concentration and By Mass)

Month: July 2008

Date	Flow (675m3)	BOD (4000mg/l)	BOD (1350kg)	COD (7000 mg/l)	COD (2362kg)	SS (2000mg/l)	SS (675kg)	A (150mg/l)	A (67.5kg)	P (200mg/l)	P (47.25kg)	N (150mg/l)	N (67.5kg)	Det (20mg/l)	Det (13.5kg)	OFG (150mg/l)	OFG (101.2kg)	pH (6.0 8.5)	Temp (<42oC)
01/07/2008																			
02/07/2008																			
03/07/2008																			
04/07/2008																			
05/07/2008																			
06/07/2008																			
07/07/2008																			
08/07/2008																			
09/07/2008																			
10/07/2008																			
11/07/2008																			
12/07/2008																			
13/07/2008																			
14/07/2008	**311**			6110	**1900.21**	1425	**443.175**											**6.68**	**16.4**
15/07/2008	**88**																		
16/07/2008	**405**	1766	**715.23**	4540	**1838.7**	1365	**552.825**	76	**30.78**	89	**36.045**	100	**40.5**	10.5	**4.2525**	2.3	**0.9315**	**6.54**	**16.1**
17/07/2008	**129**																		
18/07/2008	**363**			4530	**1644.39**	1155	**419.265**											**6.96**	**18**
19/07/2008																			
20/07/2008																			
21/07/2008	**300**			5720	**1716**	1280	**384**											**6.94**	**20.5**
22/07/2008	**112**																		
23/07/2008	**407**	3022	**1229.954**	5640	**2295.48**	1110	**451.77**	119	**48.433**	100	**40.7**	85	**34.595**	14.75	**6.0033**	4.2	**1.7094**	**7.04**	**20.2**
24/07/2008	**468**			4530	**2120.04**	1130	**528.84**											**6.98**	**21.5**
25/07/2008	**379**			5640	**2137.56**	1595	**604.505**											**7.18**	**20.9**
26/07/2008																			
27/07/2008																			
28/07/2008	**369**			5590	**2062.71**	1095	**404.055**											**6.43**	**15**
29/07/2008	**415**			4510	**1871.65**	1255	**520.825**											**6.46**	**14.5**
30/07/2008	**421**	2240	**943.04**	5590	**2353.39**	1335	**562.035**	95	**39.995**	67	**28.207**	145	**61.045**	10	**4.21**	4	**1.684**	**7.04**	**21.9**
31/07/2008	**93**																		
Average	**304.3**		**962.7**		**1994.0**		**487.1**		**39.7**		**35.0**		**45.4**		**4.8**		**1.4**	**6.8**	**18.5**
# Tests	**14**		**3**		**10**		**10**		**3**		**3**		**3**		**3**		**3**	**10**	**10**
NCR	**0**		**0**		**0**		**0**		**0**		**0**		**0**		**0**		**0**	**0**	**0**

Totals **72** **0**

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Approved by: C Coakley

DAWN MEATS PROCESS EFFLUENT ANALYSIS - IPPCL P0179-01
(By Concentration and By Mass)

Month: August 2008

Date	Flow (675m3)	BOD (4000mg/l)	BOD (1350kg)	COD (7000 mg/l)	COD (2362kg)	SS (2000mg/l)	SS (675kg)	A (150mg/l)	A (67.5kg)	P (200mg/l)	P (47.25kg)	N (150mg/l)	N (67.5kg)	Det (20mg/l)	Det (13.5kg)	OFG (150mg/l)	OFG (101.2kg)	pH (6.0 8.5)	Temp (<42oC)
01/08/2008	55			5560	305.8	1415	77.825											7.02	20
02/08/2008																			
03/08/2008																			
04/08/2008																		6.96	21.4
05/08/2008	273			5060	1381.38	1515	413.595											6.91	23.1
06/08/2008	390	3010	1324.4	5020	2208.8	1240	545.6	86	37.84	100	44	100	44	15	6.6	6.96	3.0624	6.90	21.7
07/08/2008	440			6130	2200.67	1675	601.325											6.98	19.8
08/08/2008	359			2950	1059.05	1400	502.6												
09/08/2008																			
10/08/2008																		7.12	20.5
11/08/2008	255			4370	1114.35	1565	399.075											7.20	19.4
12/08/2008	338			5330	2046.72	1330	510.72											7.27	17.1
13/08/2008	384	3694	395.258	6620	708.34	1885	201.695	90	9.63	104	11.128	70	7.49	15	1.605	4	0.428		
14/08/2008	107																	7.21	20.2
15/08/2008	327			5110	1670.97	1995	652.365												
16/08/2008																			
17/08/2008																		6.93	19.8
18/08/2008	269			6340	1705.46	1395	375.255												
19/08/2008	132																	7.12	20.3
20/08/2008	410	2894	1287.83	4320	1922.4	1265	562.925	112	49.84	66	29.37	19	8.455	19.5	8.6775	19	8.455	7.10	20.1
21/08/2008	445			4370	1944.65	1500	667.5											6.92	19.8
22/08/2008	384			5310	2039.04	1670	641.28												
23/08/2008																			
24/08/2008																		7.20	20.4
25/08/2008	345			6310	2176.95	1860	641.7											7.18	20.5
26/08/2008	395			3960	1936.44	1270	621.03											7.06	21.7
27/08/2008	489	1221	152.625	6570	821.25	1065	133.125	85	10.625	77.5	9.6875	70	8.75	1.1	0.1375	17	2.125		
28/08/2008	125																	7.16	21
29/08/2008	415			5690	2361.35	1530	634.95												
30/08/2008																			
31/08/2008																			
Average	316.9		790.0		1623.7		481.3		27.0		23.5		17.2		4.3		3.5	7.1	20.4
# Tests	20		4		17		17		4		4		4		4		4	17	17
NCR	0		0		0		0		0		0		0		0		0	0	0

Totals 112 0

DAWN MEATS PROCESS EFFLUENT ANALYSIS - IPPCL P0179-01
(By Concentration and By Mass)

Month: Septmeber 2008

Date	Flow (675m3)	BOD (4000mg/l)	BOD (1350kg)	COD (7000 mg/l)	COD (2362kg)	SS (2000mg/l)	SS (675kg)	A (150mg/l)	A (67.5kg)	P (200mg/l)	P (47.25kg)	N (150mg/l)	N (67.5kg)	Det (20mg/l)	Det (13.5kg)	OFG (150mg/l)	OFG (101.2kg)	pH (6.0 8.5)	Temp (<42oC)
01/09/2008	333			3000	999	1825	607.725											7.18	19.6
02/09/2008	132																		
03/09/2008	439	937	383.233	5310	2171.79	1540	629.86	87	35.583	82.5	33.7425	100	40.9	0.8	0.3272	70	28.63	7.20	18.9
04/09/2008	409			4170	1705.53	1625	664.625											7.13	18.7
05/09/2008	55			5880	323.4	1115	61.325											7.14	18.5
06/09/2008																			
07/09/2008																			
08/09/2008																			
09/09/2008	351			5790	2032.29	1585	556.335											7.17	18.2
10/09/2008	469	1614	773.106	4390	2102.81	1255	601.145	116	55.564	57	27.303	85	40.715	2.432	1.1649	3.2	1.5328	7.00	17.9
11/09/2008	479			4024	1927.496	1275	610.725											7.12	18.7
12/09/2008	460			4220	1941.2	950	437											7.14	18.1
13/09/2008																			
14/09/2008																			
15/09/2008	424			4790	2030.96	1465	621.16											7.15	18.4
16/09/2008	462			4580	1625.9	1435	509.425											7.01	17.9
17/09/2008	355	1849	915.255	4580	2267.1	1300	643.5	100	49.5	77.5	38.3625	65	32.175	2.79	1.3811	2.6	1.287	7.08	17.9
18/09/2008	495																		
19/09/2008	55			5690	312.95	1530	84.15											7.12	18.2
20/09/2008																			
21/09/2008																			
22/09/2008	348			5790	2014.92	1580	549.84											7.12	18.4
23/09/2008	149																		
24/09/2008	459	2812	418.988	6820	1016.18	1960	292.04	89	13.261	95	14.155	35	5.215	2.29	0.3412	6.2	0.9238	7.14	17.1
25/09/2008	149			6880	1025.12	1015	151.235											7.16	16.8
26/09/2008	646			3000	1938	980	633.08											7.10	17.2
27/09/2008																			
28/09/2008																			
29/09/2008	326			4790	1561.54	1480	482.48											7.17	16.7
30/09/2008	124																		
Average	339.0		622.6		1588.0		478.6		38.5		28.4		29.8		0.8		8.1	7.1	18.1
# Tests	21		4		17		17		4		4		4		4		4	17	17
NCR	0		0		0		0		0		0		0		0		0	0	0

Totals 113 0

DAWN MEATS PROCESS EFFLUENT ANALYSIS - IPPCL P0179-01
(By Concentration and By Mass)

Month: October 2008

Date	Flow (675m3)	BOD (4000mg/l)	BOD (1350kg)	COD (7000 mg/l)	COD (2362kg)	SS (2000mg/l)	SS (675kg)	A (150mg/l)	A (67.5kg)	P (200mg/l)	P (47.25kg)	N (150mg/l)	N (67.5kg)	Det (20mg/l)	Det (13.5kg)	OFG (150mg/l)	OFG (101.2kg)	pH (6.0 8.5)	Temp (<42oC)
01/10/2008	438	2243	982.434	4470	1957.86	1460	639.48	40	17.52	83.5	36.573	80	35.04	6.4	2.8032	20	8.76	7.13	17.0
02/10/2008	483			4280	2067.24	960	463.68											7.50	17.0
03/10/2008	443			4340	1922.62	1500	664.5											7.28	17.0
04/10/2008																			
05/10/2008																			
06/10/2008	340			5790	1968.6	1235	419.9											7.13	15.2
07/10/2008	456			5580	2181.78	1270	496.57											7.11	15.5
08/10/2008	391	2404	274.056	6930	790.02	1720	196.08	65	7.41	90	10.26	120	13.68	4.88	0.5563	91.4	10.4196	7.12	15.4
09/10/2008	114																		
10/10/2008	531			3800	2017.8	1250	663.75											7.10	15.4
11/10/2008																			
12/10/2008																			
13/10/2008	429			4730	2029.17	1525	654.225											7.11	15.3
14/10/2008	128																		
15/10/2008	501	2605	1294.685	4260	2117.22	1120	556.64	77	38.269	85	42.245	130	64.61	15.93	7.9172	37	18.389	7.13	15.3
16/10/2008	497			4000	1988	1255	623.735											7.12	15.5
17/10/2008	464			4860	2255.04	1230	570.72											7.11	15.1
18/10/2008																			
19/10/2008																			
20/10/2008	346			5530	1913.38	1160	401.36											7.01	15.3
21/10/2008	457			4630	2273.33	1321	648.611											7.03	15.1
22/10/2008	491	1116	241.056	6340	1369.44	1495	322.92	70	15.12	115	24.84	135	29.16	5.49	1.1858	7.89	1.70424	6.59	15.1
23/10/2008	216																		
24/10/2008	55			4550	250.25	1325	72.875											6.59	15.2
25/10/2008																			
26/10/2008																			
27/10/2008																			
28/10/2008	395			4985	1969.075	1280	505.6											7.01	13.5
29/10/2008	505	1929	966.429	4400	2204.4	1245	623.745	92.7	46.4427	90	45.09	105	52.605	7.43	3.7224	25	12.525	6.61	13.4
30/10/2008	501			3770	1888.77	1230	616.23											7.02	13.2
31/10/2008	55			4250	233.75	1505	82.775											7.03	13.2
Average	374.4		751.7		1757.8		485.4		25.0		31.8		39.0		3.2		10.4	7.0	15.1 Totals
# Tests	22		5		19		19		5		5		5		5		5	19	19 128
NCR	0		0		0		0		0		0		0		0		0	0	0 0

Record Sheet EVR08
Revision No 02
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Approved by: C Coakley

DAWN MEATS PROCESS EFFLUENT ANALYSIS - IPPCL P017-9-01
(By Concentration and By Mass)

Month: November 2008

Date	Flow (675m3)	BOD (4000mg/l)	BOD (1350kg)	COD (7000 mg/l)	COD (2362kg)	SS (2000mg/l)	SS (675kg)	A (150mg/l)	A (67.5kg)	P (200mg/l)	P (47.25kg)	N (150mg/l)	N (67.5kg)	Det (20mg/l)	Det (13.5kg)	OFG (150mg/l)	OFG (101.2kg)	pH (6.0 8.5)	Temp (<42oC)
01/11/2008																			
02/11/2008																			
03/11/2008	361			5760	2079.36	1005	362.805											7.40	14.5
04/11/2008	442	2841	1147.764	5310	2145.24	750	303	60	24.24	27	10.908	107	43.228	4.17	1.6847	35	14.14	7.36	14.6
05/11/2008	404			5100	2060.4	1485	599.94											7.21	14.3
06/11/2008	179																		
07/11/2008	369			5780	2132.82	1655	610.695											7.23	13.6
08/11/2008																			
09/11/2008																			
10/11/2008	320			6110	1955.2	1095	350.4											7.13	12.66
11/11/2008	92	2312	1109.76	4700	2256	1195	573.6	124	59.52	50	24	100	48	3.25	1.56	123.5	59.28	7.16	12.9
12/11/2008	480			4700	2256	1255	602.4											7.10	12.43
13/11/2008	472																		
14/11/2008	539			4050	2182.95	1055	568.645											7.13	15.4
15/11/2008																			
16/11/2008																			
17/11/2008	410			5000	2050	1625	666.25											7.21	12.55
18/11/2008	331	2311	1065.371	4540	2092.94	650	299.65	45	20.745	26	11.986	75	34.575	2.49	1.1479	10.2	4.7022	7.22	11.2
19/11/2008	461			4370	2014.57	955	440.255											7.19	11.8
20/11/2008	72																		
21/11/2008	444			4040	1793.76	1210	537.24											7.17	11.15
22/11/2008																			
23/11/2008																			
24/11/2008	177			3510	621.27	1240	219.48											7.74	11
25/11/2008	171																		
26/11/2008	367	2081	561.87	3430	926.1	505	136.35	44.5	12.015	12.5	3.375	105	28.35	4.08	1.1016	10.8	2.916	7.64	14.6
27/11/2008	270			3170	855.9	375	101.25											7.61	12.5
28/11/2008	255			1760	448.8	210	53.55											7.73	11.3
29/11/2008																			
30/11/2008																			
Average	330.8		971.2		1742.0		401.6		29.1		12.6		38.5		1.4		20.3	7.3	12.9
# Tests	20		4		16		16		4		4		4		4		4	16	16
NCR	0		0		0		0		0		0		0		0		0	0	0

Totals: 108 / 0

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DAWN MEATS PROCESS EFFLUENT ANALYSIS - IPPCL P0179-01
(By Concentration and By Mass)

Month: December 2008

Date	Flow (675m3)	BOD (4000mg/l)	BOD (1350kg)	COD (7000 mg/l)	COD (2362kg)	SS (2000mg/l)	SS (675kg)	A (150mg/l)	A (67.5kg)	P (200mg/l)	P (47.25kg)	N (150mg/l)	N (67.5kg)	Det (20mg/l)	Det (13.5kg)	OFG (150mg/l)	OFG (101.2kg)	pH (6.0 8.5)	Temp (<42oC)
01/12/2008	**207**			4930	**1020.51**	975	**201.825**											**7.70**	**11.2**
02/12/2008	**335**			2920	**817.6**	110	**30.8**											**7.72**	**12.2**
03/12/2008	**280**	1936	**197.472**	6590	**672.18**	1596	**162.792**	50.6	**5.1612**	14	**1.428**	100	**10.2**	3.94	**0.4019**	13.9	**1.4178**	**7.64**	**13.5**
04/12/2008	**102**																	**7.73**	**12.2**
05/12/2008	**223**			4000	**892**	665	**148.295**												
06/12/2008																			
07/12/2008																			
08/12/2008	**199**																		
09/12/2008	**109**																		
10/12/2008	**419**																		
11/12/2008	**468**			5180	**2051.28**	1425	**564.3**	120	**47.52**	37.5	**14.85**	120	**47.52**					**7.74**	**10.8**
12/12/2008	**396**			3590	**1421.64**	925	**366.3**											**7.44**	**7.4**
13/12/2008																			
14/12/2008																			
15/12/2008	**386**			5500	**2123**	1400	**540.4**											**7.10**	**13.5**
16/12/2008	**468**			4550	**2220.4**	1145	**558.76**											**7.20**	**12.9**
17/12/2008	**488**	1381	**552.4**	5300	**2120**	1630	**652**	71	**28.4**	31	**12.4**	105	**42**	4.81	**1.924**	7.8	**3.12**	**7.20**	**9.79**
18/12/2008	**400**			5850	**2340**	1030	**412**											**7.20**	**13.8**
19/12/2008	**5**																		
20/12/2008																			
21/12/2008																			
22/12/2008																			
23/12/2008																			
24/12/2008																			
25/12/2008																			
26/12/2008																			
27/12/2008																			
28/12/2008																			
29/12/2008																			
30/12/2008																			
31/12/2008																			
Average	**299.0**		**374.9**		**1567.9**		**363.7**		**27.0**		**9.6**		**33.2**		**1.2**		**2.3**	**7.5**	**11.7**
# Tests	**15**		**2**		**10**		**10**		**3**		**3**		**3**		**2**		**2**	**10**	**10**
NCR	**0**		**0**		**0**		**0**		**0**		**0**		**0**		**0**		**0**	**0**	**0**

Totals **70** **0**

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