



COLD CHON (GALWAY) Ltd.
Sligo Depot,
Deepwater Quay
Sligo



IPPC License No. P0073-01 Class 5.9



ANNUAL ENVIRONMENTAL REPORT

for

2014

2.1 Introduction

Licence No.: P0073-01 (Class 5.9)

Name: Cold Chon (Galway) Ltd. Sligo Depot

Location: Deepwater Quay,

Sligo.

Phone: (071) 9161952

Fax: (071) 9169361

E:mail: paul.mcgoldrick@coldchon.ie

Activities

Cold Chon (Galway) Ltd., manufactures a range of water based Cationic Bitumen Emulsions, which are used in road surfacing and road construction throughout Ireland.

Products: Bitumen Emulsions



Environmental Policy



Cold Chon (Galway) Ltd., Sligo, manufactures a range of bitumen emulsions to the highest standard.

The EPA has issued the Company with an Integrated Pollution Control (IPPC) License. Strict limits have been placed on the Company to ensure protection of the environment. An Environmental Management System has been set up and shall govern all the activities of the Company. The formal system is documented in this manual.

Cold Chon (Galway) Ltd, Sligo shall endeavour to:

- Operate within the constraints of a recognised environmental management system based on ISO 14001
- Ensure that no condition of the IPC license is contravened
- Reduce waste in all aspects of work
- Increase energy efficiency where possible
- Commit to compliance with all relevant environmental laws and regulations
- Evaluate and reduce the environmental impacts of our operations
- Consider the impact on the environment during production and packaging
- Educate and provide training to all employees to ensure work is carried out in a manner which maximises protection of the environment and ensures that all staff are aware of their roles & responsibilities in achieving conformance with the environmental policy and procedures
- Openly communicate with employees and external interested parties on environmental issues and take these into consideration when reviewing objectives and targets to ensure continuous improvement of the environmental performance of the business
- In the event of non-compliance, initiate corrective action to prevent reoccurrence.

It is essential that every employee realises their responsibility for their own work, to be aware of the potential sources of pollution that may be associated with each operation and be fully committed to participate in the effective operation of the environmental system. Management shall promote the ideals of the environment by example and training.

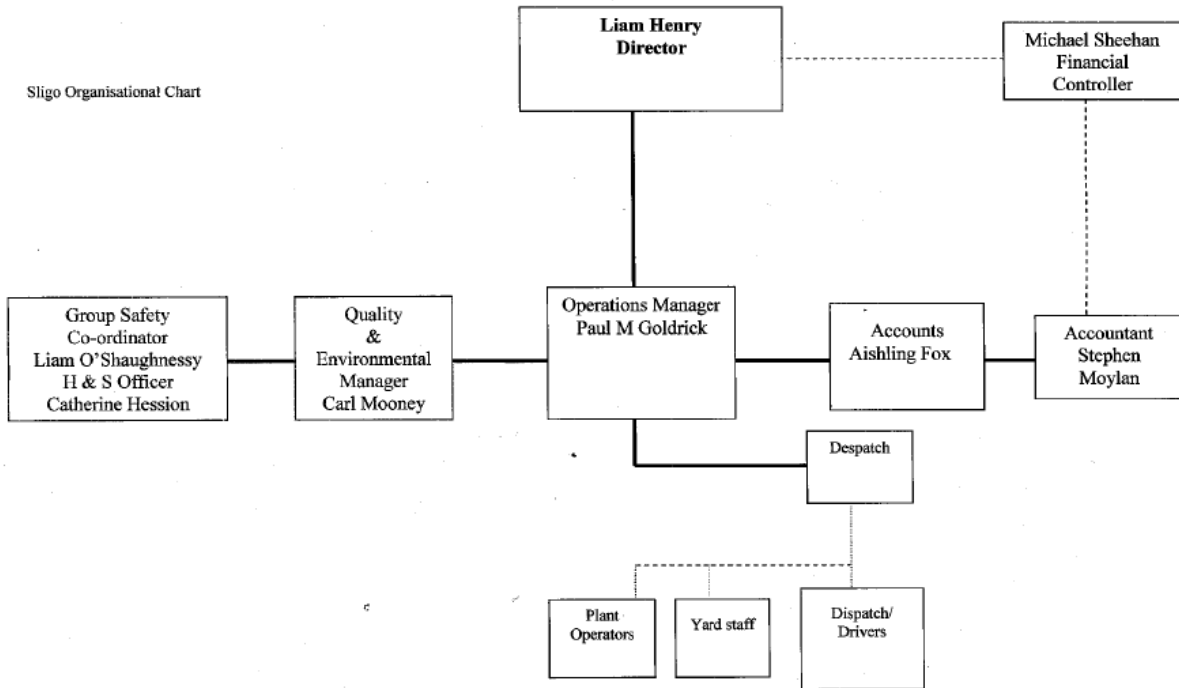
The environment system defined in this manual is now official, approved and operational.

Signed *Liam Henry*
Liam Henry
General Manager
Cold Chon (Galway) Ltd.



Company Organisation Chart

ORGANISATIONAL CHART COLD CHON (GALWAY)LTD.



2.2 Summary Information

Self Monitoring Data - Schedule 1 Monitoring Emissions to Atmosphere

Emissions to Atmosphere:

Southern Scientific Services Ltd, was commissioned to carry out monitoring of emissions from boilers at Cold Chon (Galway) Ltd, Sligo Depot. This work was subcontracted to Anua. Anua operates a quality management system to ISO 17025 and are accredited to ISO 17025 for stack emissions monitoring as per INAB schedule 083T. Monitoring was carried out on the 17th of October 2014 (A1-1) and the 8th December 2014 (A1-2) by Anua.

Table 5: TA Luft Limit for NO_x, SO₂, & CO

Parameter	TA Luft Limit (mg/Nm ³)	A1-1 Results (mg/Nm ³)	A1-2 Results (mg/Nm ³)
NO _x	350	94.0	117.0
SO ₂	850	<4.1	<7.5
CO	80	14.2	8.3

Boiler Emissions Monitoring Report which was carried out by Anua in accordance with the “*Guidance document for the implementation of the European PRTR*”.

We were well within the E-PRTR regulation limits as set out in Annex II of E-PRTR regulations

	A1-1	A1-2	E-PRTR Limits
NOx (kg/yr)	35.7	112.2	100,000
SOx (kg/yr)	1.6	7.2	150,000
CO (kg/yr)	5.4	8.0	500,000
CO2 (kg/yr)	94,048	247,016	100,000,000
Combustion Efficiency	87%	83%	

Per Schedule 1 of the license Combustion Efficiency was undertaken as per figures above.

Note – Emissions were up slightly as boiler hours increased due to increased heating demand at site i.e. maintaining product to required temperature for customers with demand being less predictable due to seasonal and economic factors.

Accreditation Certificate

Southern Scientific Services Ltd.

Dunrine, Killarney, Co. Kerry

Testing Laboratory

Registration number: 194T

is accredited by the Irish National Accreditation Board (INAB) to undertake testing as detailed in the Schedule bearing the Registration Number detailed above, in compliance with the International Standard ISO/IEC 17025:2005 2nd Edition "General Requirements for the Competence of Testing and Calibration Laboratories"


(This Certificate must be read in conjunction with the Annexed Schedule of Accreditation)

Date of award of accreditation: 22:04:2008

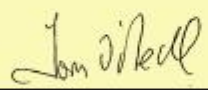
Date of last renewal of accreditation: 29:04:2013

Expiry date of this certificate of accreditation: 29:04:2018

This Accreditation shall remain in force until further notice subject to continuing compliance with INAB accreditation criteria, ISO/IEC 17025 and any further requirements specified by the Irish National Accreditation Board.

Manager: 

Dr Adrienne Duff

Chairperson: 

Mr Tom O'Neill

Issued on 29 April 2013

Organisations are subject to annual surveillance and are re-assessed every five years. The renewal date on this Certificate confirms the latest date of renewal of accreditation. To confirm the validity of this Certificate, please contact the Irish National Accreditation Board.

The INAB is a signatory of the European co-operation for Accreditation (EA) Testing Multilateral Agreement (MLA) and the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement.

Accreditation Certificate

Bord Na Móna Environmental Ltd trading as ANUA

Technical Services Analytical Laboratory, Main Street, Newbridge, Co. Kildare

Testing Laboratory

Registration number: 083T

is accredited by the Irish National Accreditation Board (INAB) to undertake testing as detailed in the Schedule bearing the Registration Number detailed above, in compliance with the International Standard ISO/IEC 17025:2005 2nd Edition "General Requirements for the Competence of Testing and Calibration Laboratories"
(This Certificate must be read in conjunction with the Annexed Schedule of Accreditation)

Date of award of accreditation: 16:11:2001

Date of last renewal of accreditation: 16:11:2011

Expiry date of this certificate of accreditation: 16:11:2016

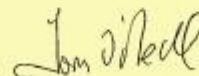
This Accreditation shall remain in force until further notice subject to continuing compliance with INAB accreditation criteria, ISO/IEC 17025 and any further requirements specified by the Irish National Accreditation Board.

Manager: _____



Dr Adrienne Duff

Chairperson: _____



Mr Tom O'Neill

Issued on 16 November 2011

Organisations are subject to annual surveillance and are re-assessed every five years. The renewal date on this Certificate confirms the latest date of renewal of accreditation. To confirm the validity of this Certificate, please contact the Irish National Accreditation Board.

The INAB is a signatory of the European co-operation for Accreditation (EA) Testing Multilateral Agreement (MLA) and the International Laboratory Accreditation Cooperation (ILAC) Mutual Recognition Arrangement.

Scope of Accreditation



Bord Na Móna Environmental Ltd
trading as ANUA-Technical Services Lab
Stack Emissions Testing Laboratory

Permanent Laboratory:
 Category B

INAB Classification number (P9) Materials/products tested	Type of test/properties measured Range of measurement	Standard specifications Equipment/techniques used
770 Gases and Aerosols		
.04 Industrial fumes and mixtures Sampling and on-site analysis	Carbon monoxide 1.6 - 5000 ppm	IS EN 14792:2006 Infra red analyser with continuous analysis (Horiba) SOP TS-A-08
	Oxides of Nitrogen (NOx) 0.5 - 5000 ppm	EN 14792:2006 Chemi-luminescence with continuous analysis (Horiba) SOP TS-A-08
	Oxides of Sulphur (SOx) 1.6 - 3000 ppm	IS EN 14791:2006- alternative method TGN M21 Infra red analyser - with continuous analysis (Horiba) Horiba SOP TS-A-08
	Oxygen 0.09-25 vol%	IS EN 14789:2005 Zirconium oxide cell - with continuous analysis (Horiba) SOP TS-A-08

Appendix

Self Monitoring Data - Schedule 2 Waste

As per schedule 5 of our IPPC license we are required to submit a “Waste Disposal Off-Site - Summary Report”

Quantity T/Year	Description of Waste
0.06	degreasing wastes containing dangerous substances
0.22	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances
0.96	paper and cardboard
0.64	plastics
0.0	metals
1.66	mixed municipal waste

Appendix

Self Monitoring Data - Schedule 4 Surface Water Emissions incl COD and OFG inspections

Surface Water Emissions EP 1

3rd Chamber Of Interceptor

Responsibility: Environmental Manager Sligo

	Date	Oils Fats & Greases	COD
CLS analysis	25-Jan	22	75
CLS analysis	20-Jun	5	147
CLS analysis	19-Nov	5	18
CLS analysis	16-Dec	5	15

Energy Consumption

As part of our EMS Certification to ISO 14001:2004 we have set a number of key measures to monitor our energy management performance.

The Following are the trends of our Energy Management Process;

- Electricity Usage has increased by 19% over previous year to 109.8 mWh
 - However the trend since 2005 is significantly downwards i.e. 225 mWh in 2005 > 109 mWh in 2014, reducing almost year on year.
- MGO usage is +117%

Electricity and in particular, MGO increase is due to heating demand at site i.e. maintaining product to required temperature for customers with demand being less predictable due to seasonal, Local Authority budget cuts and economic factors.

Best practices are being observed by staff and the most energy efficient equipment & lighting is used where possible / practical. This is managed by effective communication and increased awareness brought about by the work before, during and after the implementation of the Environmental Management System in place to meet our IPPC License requirements and that of our EMS to ISO 14001:2004

An energy study was undertaken on 7th July 2012 by SEAI under the Advice, Mentoring & Assessment Programme for SMEs.

Water Consumption:

Consumption figures cannot be submitted separately, because our competitors would be able to work out our annual production from them.

However these figures are available on site for inspection by the agency

We have many programs in place for reducing waster usage i.e.

- Use of water from bunds
- Increased awareness and adherence by staff to water reduction programs
- Process employed

Waste

As a result of our continued EMS Certification to ISO 14001:2004 and increasing waste costs, the area of waste management has become a critical area to be managed. We have developed a number of key measures within our waste management process;

- 3% increase in site waste, due to increase in dry recycling (see below)
- Skip waste is down 1% to 1.66t
- 14% increase in cardboard & paper recycling to 0.96t
- 24% reduction in plastic recycling to 0.84t (previous year was +224%)
- Overall there was a 7% increased in recycling
- Only 0.28t of Haz-waste (Oily rags / Degreaser)
- 53% of waste was successfully diverted from landfill (+4% on previous year)

Overall our Waste Management has proven to be very effective thanks to increased focus and participation of all our staff in the various recycling and waste management schemes.

Environmental Incidents and Complaints: N/A - None

Appendices

AER Summary Data



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AER / PRTR Emissions Data Upload Queued for Processing

Your AER / PRTR Emissions Data XML Return file has been queued for automatic checking by our data system.

Please retain your tracking number below by printing this page. You should also electronically copy and paste the tracking number to a "Word" document and save this to your AER / PRTR Reporting folder on your computer under the name "2XXX AERPRTR Emissions Data XML Return Tracking Number.doc" (Where 2XXX is the year).

Your file will now undergo automated checking, you will receive a verification email within 24 hours. This email will specify one of two things:

Your file has passed the automated checking and the data has been imported successfully into the AER/ PRTR Database.

OR

Your file has failed the automated checking, and the data has not been imported into the AER / PRTR database. Please correct the identified error(s) in your Excel file and then create and upload your AER / PRTR Emissions data return again.

EPA Licence holders may now proceed to the Second AER / PRTR Reporting Task, the submission of your Full AER or Annual Environmental Report.

Non EPA-Licensed facilities have now completed your obligations to report under the PRTR Regulations. However, your report will be assessed in relation to its quality, completeness, consistency and credibility, and it is possible that further refinement or review of the information may be required by the EPA following the date of your submission.

Important - Your upload is not complete until you receive the confirmation email which confirms that the file has passed the import validation.

Tracking Number: e2833b2bdd52f7e0d16266e91453d389

MOONEY, Carl (IRELAND)

From: aerreturns@epa.ie
Sent: 25 March 2015 03:02
To: MOONEY, Carl (IRELAND)
Subject: AER / PRTR Emissions Data VERIFICATION OF ACCEPTANCE (p0073_2014.xml)

Thank you,

Your AER / PRTR Emissions Data submission has been accepted by our data system.

You may now proceed to save your submitted emissions and waste transfers information in a format suitable for insertion into your Full AER report. The Full AER Report must be submitted in electronic (PDF) form only, the AER is NOT required in hardcopy (paper) form.

Please retain the receipt / tracking number below in case of future queries about this submission and in case a request is made by an authorised person in this regard.

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[Guidance to completing the PRTR workbook](#)

AER Returns Workbook

Version 1.1.18

REFERENCE YEAR	2014
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1. FACILITY IDENTIFICATION

Parent Company Name	Cold Chon (Galway) Limited
Facility Name	Cold Chon Galway Limited (Sligo)
PRTR Identification Number	P0073
Licence Number	P0073-01

Classes of Activity

No.	class_name
-	Refer to PRTR class activities below

Address 1	Sligo Depot
Address 2	Deepwater Quay
Address 3	
Address 4	
	Sligo
Country	Ireland
Coordinates of Location	-8.49253 54.2831
River Basin District	IJWE
NACE Code	2052
Main Economic Activity	Manufacture of glues
AER Returns Contact Name	Carl Mooney
AER Returns Contact Email Address	carl.mooney@colas.ie
AER Returns Contact Position	EMS Mgr
AER Returns Contact Telephone Number	0871630630
AER Returns Contact Mobile Phone Number	0871630630
AER Returns Contact Fax Number	
Production Volume	0.0
Production Volume Units	
Number of Installations	0
Number of Operating Hours in Year	0
Number of Employees	12
User Feedback/Comments	Re Emission to Air increase - Up slightly as boiler hours increased due to increased heating demand at site i.e. maintaining product to required temperature for customers with demand being less predictable due to seasonal and economic factors.
Web Address	

2. PRTR CLASS ACTIVITIES

Activity Number	Activity Name
50.1	General
4(a)	Simple hydrocarbons (linear or cyclic, saturated or unsaturated, aliphatic or aromatic), Oxygen-containing hydrocarbons such as alcohols, aldehydes, ketones, carboxylic acids, esters, acetates, ethers, peroxides, epoxy resins, Nitrogenous hydrocarbons such as amines, amides, nitrous compounds, nitro compounds or nitrate compounds, nitriles, cyanates, isocyanates, Synthetic rubbers, Phosphorus-containing hydrocarbons, Halogenic hydrocarbons, Organometallic compounds, Basic plastic materials (polymers, s

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

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

4. WASTE IMPORTED/ACCEPTED ONTO SITE

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

Do you import/accept waste onto your site for on-site treatment (either recovery or disposal activities) ?	No
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This question is only applicable if you are an IPPC or Quarry site

4.1 RELEASES TO AIR

[Link to previous years emissions data](#)

[PRTR# : P0073 | Facility Name : Cold Chon Galway Limited (Sligo) | Filename : P0073_2014.xls | Return Year : 2014]

31/03/2015 07:57

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

POLLUTANT		METHOD			Please enter all quantities in this section in KGs			QUANTITY	
No. Annex II	Name	M/C/E	Method Code	Designation or Description	A1-1	A1-2	T (Total) KG/Year	A (Accidental) KG/Year	F (Fugitive) KG/Year
08	Nitrogen oxides (NOx/NO2)	M	EN 14792:2005	Flue Gas Analyser	35.7	112.2	147.9	0.0	0.0
11	Sulphur oxides (SOx/SO2)	M	EN 14791:2005	Flue Gas Analyser	1.6	7.2	8.8	0.0	0.0
02	Carbon monoxide (CO)	M	EN 15058:2004	Flue Gas Analyser	5.4	8.0	13.4	0.0	0.0
03	Carbon dioxide (CO2)	M	ISO 12039:2001	Flue Gas Analyser	94048.0	247016.0	341064.0	0.0	0.0

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

SECTION B : REMAINING PRTR POLLUTANTS

POLLUTANT		METHOD			Please enter all quantities in this section in KGs			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 C : REMAINING POLLUTANT EMISSIONS (As required in your Licence)

POLLUTANT		METHOD			Please enter all quantities in this section in KGs			QUANTITY	
Pollutant No.	Name	M/C/E	Method 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

Additional Data Requested from Landfill operators

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

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

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

[PRTR# : P0073 | Facility Name : Cold Chon Galway Limited (Sligo) | Filename : P0073_2014.xls | Return Year : 2014]

31/03/2015 07:57

Please enter all quantities on this sheet in Tonnes

3

Transfer Destination	European Waste Code	Hazardous	Quantity (Tonnes per Year)	Description of Waste	Waste Treatment Operation	Method Used		Location of Treatment	Haz Waste : Name and Licence/Permit No of Next Destination Facility	Haz Waste : Address of Next Destination Facility	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						Non Haz Waste: Name and Licence/Permit No of Recover/Disposer	Non Haz Waste: Address of Recover/Disposer					
						M/C/E	Method Used					
Within the Country	11 01 13	Yes	0.06	degreasing wastes containing dangerous substances	R13	M	Weighed	Offsite in Ireland	Safety Kleen Ireland Ltd.,W0099-01	Unit 5 Airton Road,Tallaght Dublin 24,Co Dublin,Dublin 24,Ireland	Safety Kleen Ireland Ltd.,W0099-01,Unit 5 Airton Road,Tallaght Dublin 24,Co Dublin,Dublin 24,Ireland	Unit 5 Airton Road,Tallaght Dublin 24,Co Dublin,Dublin 24,Ireland
Within the Country	15 02 02	Yes	0.22	absorbents, filter materials (including oil filters not otherwise specified), wiping cloths, protective clothing contaminated by dangerous substances	R13	M	Weighed	Offsite in Ireland	Enva,W0184-01	Clonminam Industrial Estate,Portlaoise,County Laois,,Ireland	Enva,W0184-01,Clonminam Industrial Estate,Portlaoise,County Laois,,Ireland	Clonminam Industrial Estate,Portlaoise,County Laois,,Ireland
Within the Country	20 01 01	No	0.96	paper and cardboard	R5	M	Weighed	Offsite in Ireland	Starrus Eco Holdings Ltd.,W0058-01	Deepwater Quay,Sligo,Sligo,*,*,Ireland	Starrus Eco Holdings Ltd.,W0058-01,Deepwater Quay,Sligo,Sligo,*,*,Ireland	Starrus Eco Holdings Ltd.,W0058-01,Deepwater Quay,Sligo,Sligo,*,*,Ireland
Within the Country	20 01 39	No	0.64	plastics	R5	M	Weighed	Offsite in Ireland	Starrus Eco Holdings Ltd.,W0058-01	Deepwater Quay,Sligo,Sligo,*,*,Ireland	Starrus Eco Holdings Ltd.,W0058-01,Deepwater Quay,Sligo,Sligo,*,*,Ireland	Starrus Eco Holdings Ltd.,W0058-01,Deepwater Quay,Sligo,Sligo,*,*,Ireland
Within the Country	20 01 40	No	0.0	metals	R4	M	Weighed	Offsite in Ireland	Starrus Eco Holdings Ltd.,W0058-01	Deepwater Quay,Sligo,Sligo,*,*,Ireland	Starrus Eco Holdings Ltd.,W0058-01,Deepwater Quay,Sligo,Sligo,*,*,Ireland	Starrus Eco Holdings Ltd.,W0058-01,Deepwater Quay,Sligo,Sligo,*,*,Ireland
Within the Country	20 03 01	No	1.66	mixed municipal waste	D1	M	Weighed	Offsite in Ireland	Starrus Eco Holdings Ltd. / Mayo Co Co Rathroen Landfill Site,W0058-01 / W0067-02	Rathroen,Ballina,Co Mayo,,Ireland	Starrus Eco Holdings Ltd. / Mayo Co Co Rathroen Landfill Site,W0058-01 / W0067-02,Rathroen,Ballina,Co Mayo,,Ireland	Starrus Eco Holdings Ltd. / Mayo Co Co Rathroen Landfill Site,W0058-01 / W0067-02,Rathroen,Ballina,Co Mayo,,Ireland

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

[Link to previous years waste data](#)

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

[Link to Waste Guidance](#)

2.3 Management of the Activity:

Completed Objectives and Targets from 1st Jan 2013 > March 2015

Objectives	Target / Action	Responsibility
Improve Combustion efficiency of Sligo Boilers through tuning	Increase efficiency from 80.4% to >85% (A1-1) & 83.5 to >88%, thereby reducing emissions	Paul McGoldrick
Reduce Skip waste from 2.84 to <2t	Reduce material going to Lanfill	Paul McGoldrick
Increase return rate of packaging	Increase from 0.14t to >1.5t	Sales
Conduct an awareness seminar with Sligo Staff on Environment, Emergency, Waste Mgt IPPC License requirements and EPA	Ensure they are aware of our EMS Requirements and comply with our IPPC Licence and improve general housekeeping and waste Mgt.	Carl Mooney
Conduct a seminar to incorporate relevant QMS areas to operational staff i.e. Customer satisfaction, audits etc	Ensure employees are aware of QMS and involved in its developments and improvements	Carl Mooney
Improve bund testing records in Sligo	Undertake the next round using same template that is used in Oranmore, which meets all relevant requirements, has been routinely accepted by Inspectors as being best practice	Paul McGoldrick
Improve efficiency of operations and Reduce Electricity Usage	Reduce from 105,100 kWh to < 103,000 kWh	Paul McGoldrick
Increase dry recycling	Increase from 0.44t to >0.5t	Paul McGoldrick
Reduce Skip waste from 1.89 to <1.7t	Reduce material going to Lanfill	Paul McGoldrick
Reduce MGO/tp to improve operational efficiency	This increased by 20%	Paul McGoldrick
Reduce Elec/tp to improve operational efficiency	This increased by 22%	Paul McGoldrick
Conduct two Emergency Evacs	Ensure all staff are trained and aware of the procedure and their subsequent responsibilities	Paul McGoldrick
Conduct Bund Integrity Tests on following bunds; - Kerosene - MGO / Derv - Acid - Amine - Gas tank	Ensure the existing bund integrity is maintained	Paul McGoldrick
Review Energy Efficiencies for Sligo	Commence more detailed analysis on the fuel usage for Sligo	Carl Mooney
Set Trigger Values (Action & Warning limits) for Storm Water Discharges to Off-site Surface Waters	Ensure there is no impact on receiving waters from storm water discharges	Paul McGoldrick

New / Open Objectives and Targets

Objectives	Target / Action	Responsibility
Develop improved bund register	To ensure all bunds are included	Paul McGoldrick
Investigate if there are any Energy Audits available through SEI	Help identify Energy improvement opportunities and reduce energy usage thereby reducing CO2 emissions	Paul McGoldrick
Conduct an assessment of mobile bunds	Ensure the existing bund integrity is maintained	Paul McGoldrick
Review storage facilities for emulsion storage in Sligo	Carry out review of the storage tank in Sligo with a view to upgrading where required	Liam Henry / Paul McGoldrick
Conduct two Emergency Evacs	Ensure all staff are trained and aware of the procedure and their subsequent responsibilities	Paul McGoldrick
Reduce MGO/ton to improve operational efficiency	Reduce by 3%	Paul McGoldrick
Reduce Elec/ton to improve operational efficiency	Reduce by 3%	Paul McGoldrick
Reduce packaging waste on the market	Persuade customers to take bulk deliveries or return packaging for re-use	Paul McGoldrick
Improve efficiency of operations and Reduce Electricity Usage	Reduce from 106 kWh to <100,000 kWh	Paul McGoldrick
Increase dry recycling (Paper, Cardboard & Plastic)	Increase from 1.68 to >1.8t	Paul McGoldrick
Reduce Skip waste from 1.68 to <1.5t	Reduce material going to Lanfill	Paul McGoldrick
Ensure the performance of an exercise at least once every five years involving an outside service (fire department, service provider, consultant, etc.)	To ensure we are capable of dealing with an emergency situation should one occur	Paul McGoldrick
Conduct Bund Integrity Tests in Feb 2017 on following bunds; - Kerosene - MGO / Derv - Acid - Amine - Gas tank	Ensure the existing bund integrity is maintained	Paul McGoldrick

EPA Audits / Inspection

No non-conformances were raised in the reporting period thereby continuing our trend over the last few years of a very high compliance level with our IPPC Licence and ISO 14001:2004.

Training / Communication

Communication / training seminars were carried out with all staff on;

- 13th March 2006 in Galway – Annual Seminar
- 12th March 2007 in Galway – Annual Seminar
- 3rd of March 2008 in Galway – Annual Seminar
- 15th of April 2009 in Galway – Annual Seminar
- 30th of March 2010 in Galway – Annual Seminar
- 16th of March 2011 in Galway– Annual Seminar
- 27th of March 2013 in Sligo- Annual Seminar
- 23rd of April 2014 in Sligo Annual Seminar

Topics covered in annual seminars typically include;

- EPA Audits
- Environmental Improvements
- IPPC Licence Requirements
- Emergency Evacuation
- Waste Management
- Storage & Transfer Requirements

This is always attended by all operational personnel, drivers, helpers, Lab and managers & supervisors.

2.4 License Specific Reports

- Boiler Monitoring Report



**southern scientific
services ltd**

Boiler Emissions Monitoring 2014 – Summary Report

Cold Chon (Galway) Ltd
Sligo Depot
Deepwater Quay
Sligo

IPPC Licence P0073-01

Requested By:	Cold Chon (Galway) Ltd
ISO 17025 Monitoring & Report By:	Anua
Summary Report By:	Paul Byrne
Date Reported:	25 th February 2015
Our Reference:	14P 031

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Table of Contents

Introduction	3
Monitoring Objectives	3
Special Monitoring Requirements	3
Method	3
Results	4
Conclusion	6
Monitoring organisation details	6
Appendix 1	7

Introduction

Southern Scientific Services Ltd, Dunrine, Killarney, Co. Kerry was commissioned to carry out monitoring of emissions from boilers at Cold Chon (Galway) Ltd, Sligo Depot, (IPPC Licence No: P0073-01). This work was subcontracted to Anua. Anua operates a quality management system to ISO 17025 and are accredited to ISO 17025 for stack emissions monitoring as per INAB schedule 083T. Monitoring was carried out on the 17th of October 2014 (A1-1) and the 8th December 2014 (A1-2) by Anua. Monitoring results for same were reported by Anua in January 2015 (attached as Appendix 1 to this report). The purpose of this report is to provide a summary of monitoring results to include results in E-PRTR format requested by the client.

1. Monitoring Objectives

Cold Chon (Galway) Ltd, Sligo Depot, (IPPC Licence No: P0073-01), are required per Schedule 1 of their IPPC Licence to monitor boilers for combustion efficiency on an annual basis. In addition to combustion efficiency, the client also requested monitoring of nitrogen oxides (as NO₂), sulphur dioxide and carbon monoxide emissions from emission points A1-1 and A1-2. This monitoring campaign has been undertaken to satisfy these requirements.

2. Special Monitoring Requirements

The boilers normally operate intermittently to maintain the prescribed storage temperature requirement of the product. In order to facilitate monitoring for a minimum of thirty minutes the boilers were turned off in advance of scheduled monitoring and the product was allowed to cool. The boilers then operated for an extended time to bring the product back up to temperature and this facilitated sufficient monitoring time.

3. Method

This work was subcontracted to Anua. Anua operates a quality management system to ISO 17025 and are accredited to ISO 17025 for stack emissions monitoring as per INAB schedule 083T. Monitoring was carried out on the 17th of October 2014 (A1-1) and 8th of December 2014 (A1-2) by Anua. Monitoring results for same were reported by Anua in January 2015 (attached as Appendix 1 to this report) and the methodologies employed for monitoring are detailed in that report.

Monitoring results provided by Anua are based on dry gas at standard conditions of temperature (273K) and pressure (101.3kPa) and corrected to 3% oxygen. Results were obtained from measurements taken at the sampling positions downstream of the boilers, emission point reference numbers A1-1 & A1-2. Results in terms of kg/yr are based on boiler running times of 420 and 1200 hours/year for boilers A1-1 & A1-2, respectively. Boiler running times were provided by the client.

4. Results

Monitoring results for 2014 are provided in Tables 1- 4 below.

Table 1: Boiler parameters

Parameter	A1-1 Results	A1-2 Results
Date	17.10.2014	08.12.2014
Start time	12:25	13:37
Finish time	13:05	14:31
Stack gas temperature °C	190	198
Stack Cross-Sectional Area m ²	0.05	0.05
Vol. flow rate Nm ³ /hr*	903	799
Boiler efficiency %	87	83
Oxygen %	2.2	9.6

*Flow rates are based on stack gas velocity measured during the previous annual monitoring event. Stack gas velocity was not measured by Anua in 2014 as the equipment was not compatible with the sampling ports available on the day of monitoring. The hourly flow rate is the potential flow rate assuming the boiler is running for a full 60 minutes per hour. However, the actual running time of each boiler is significantly less than this as the boilers only operate intermittently to maintain the prescribed storage temperature requirement of the product.

Table 2: Boiler monitoring results

Parameter	A1-1 (mg/Nm ³)	A1-1 (kg/yr)	A1-2 (mg/Nm ³)	A1-2 (kg/yr)
NO _x as NO ₂	94.0	35.7	117.0	112.2
SO _x as SO ₂	<4.1	1.6	<7.5	7.2
CO	14.2	5.4	8.3	8.0
CO ₂	248000	94048	257688	247016

Table 3: Boiler A1-1 results in E-PRTR format

Releases to air					
Pollutant		Method		Quantity	
Pollutant No.	Name	M/C/E	Method	Total (kg/yr)	Accidental (kg/yr)
8	NO _x (as NO ₂)	M	EN 14792:2006	35.7	-
11	SO _x (as SO ₂)	M	EN 14791:2005	1.6	-
2	CO	M	EN 15058:2006	5.4	-
3	CO ₂	M	ISO 12039:2001	94048	-

Table 4: Boiler A1-2 results in E-PRTR format

Releases to air					
Pollutant		Method		Quantity	
Pollutant No.	Name	M/C/E	Method	Total (kg/yr)	Accidental (kg/yr)
8	NO _x (as NO ₂)	M	EN 14792:2006	112.2	-
11	SO _x (as SO ₂)	M	EN 14791:2005	7.2	-
2	CO	M	EN 15058:2006	8.0	-
3	CO ₂	M	ISO 12039:2001	247016	-

5. Conclusion

The IPPC licence (P0073-01) does not include limit values for emissions from the boiler. However with reference to the TA Luft limits, outlined for *Facilities for Generating Electricity, Steam, Hot Water, Process Heat or Heated Waste Gas in Furnaces using Heating oils, Emulsified Natural Bitumen, Methanol, Ethanol, Untreated Vegetable Oils or Vegetable Oil Methyl Esters with a Firing Thermal Capacity of less than 50 MW* (TA Luft - 5.4.1.2.2, 2002), as guideline limit values, it is concluded that the boilers are operating within these guideline limits (Table 5).

Table 5: TA Luft Limit for NO_x, SO₂, & CO

Parameter	TA Luft Limit (mg/Nm ³)	A1-1 Results (mg/Nm ³)	A1-2 Results (mg/Nm ³)
NO _x	350	94.0	117.0
SO ₂	850	<4.1	<7.5
CO	80	14.2	8.3

Boiler efficiency was estimated at 87% and 83% for Boiler A1-1 & A1-2, respectively. It is concluded that overall the boilers are operating to a satisfactory standard.

6. Monitoring organisation & personnel details

All monitoring work was undertaken by Anua. Anua operates a quality management system to ISO 17025 and is accredited to ISO 17025 for stack emissions monitoring as per INAB schedule 083T. This summary report was prepared by Paul Byrne (Ph.D, B.Sc), Environmental Consultant, Southern Scientific Services Ltd.

Appendix 1

Monitoring Report

Monitoring of Air Emissions at the Cold Chon Facility Sligo.

For the Attention of:	Paul Byrne Southern Scientific Killarney, Co. Kerry, Ireland
Site Specific Protocol (SSP) Ref:	Cold Chon - Sligo
Site Work Completed By:	Simon Buckley Environmental Scientist
Report Prepared By:	Simon Buckley Environmental Scientist
Report Reviewed By:	Andrew Mahon Air Team Leader
Anua File Ref:	ECS4995
Monitoring Period:	Oct-14
Report Issue Date:	Jan-15



This report shall not be reproduced except in full, without the approval of ANUA Environmental. All queries concerning the report or its contents should be forwarded to the Monitoring Team Leader.

Executive Summary

ANUA Environmental were contracted to perform sampling and analysis of Flue gases on Boilers at Various Cold Chon sites throughout Ireland on behalf of Southern Scientific Ltd.

ANUA visited the Cold Chon - Sligo site on the 17/10/14 and the 08/12/14 to conduct the Annual monitoring event.

This report details the sampling and analytical methodologies employed.



Simon Buckley
Environmental Scientist



Andrew Mahon
Air Team Leader

1.0 Methodology

All monitoring procedures were carried out according to methods detailed in Table 1.1 below:

Table 1.1: Summary of Methods

Parameter	Method	SOP Ref	Accreditation	SSP
Oxides of Nitrogen (NO _x)	IS EN 14792-2006	TS-A-08	ISO17025	Cold Chon - Sligo
Sulphur Dioxide (SO ₂)	TGN M21	TS-A-08	ISO17025	Cold Chon - Sligo
Oxygen (O ₂)	IS EN 14789-2005	TS-A-08	ISO17025	Cold Chon - Sligo
Carbon Monoxide (CO)	IS EN 15058-2006	TS-A-08	ISO17025	Cold Chon - Sligo

2.0 Commitment to Quality

Anua Environmental operates a quality management system to ISO 17025 and are currently accredited to ISO 17025 for stack emission monitoring as per INAB schedule 083T. We have quality control procedures in place for monitoring the validity of tests undertaken, which include the analysis of quality controls and blanks as well as calibration with standards. Anua is committed to continuous quality improvement and participates in external Proficiency schemes for both stack emissions and laboratory analysis

It is the policy of Anua to achieve and maintain a high standard of quality consistent with client's requirements in all aspects of the work carried out.

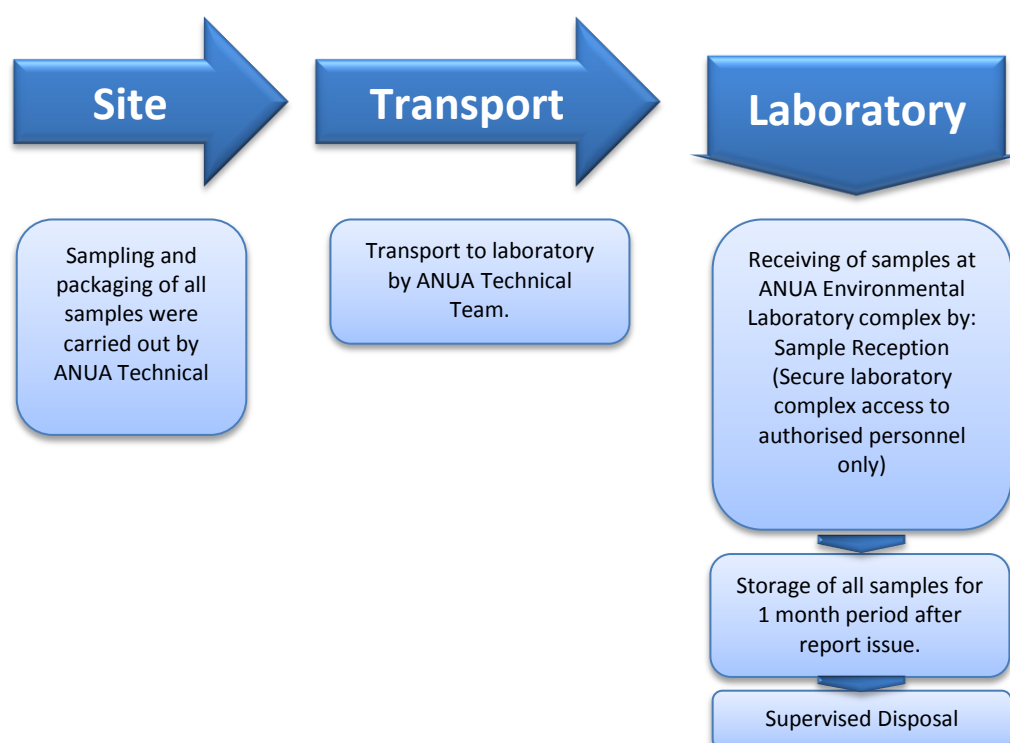
Our operations are built on teamwork and the highest levels of customer service. To achieve and maintain our quality objectives it is the responsibility of each employee to perform his or her work to the highest standards at all times.

2.1 Control Chain of Custody

As part of the Quality System in place in Anua Environmental, measures are taken to ensure controlled chain of custody. An outline of the chain of custody is given below.



Controlled Chain of Custody



3.0 Results

Table 3.1: Sampling Parameters for Monitoring Events

Stack Ref Code	Parameter	Date Sampled	Time Sampled
Boiler 1 (Gas Duty Boiler)	Flue Gases	17/10/2014	12:25-13:05
Boiler 2 (Oil stand by Boiler)	Flue Gases	08/12/2014	13:37-14:31

Table 3.2: Volumetric Flows and Temperatures

Stack Ref Code	Source Name	Temperature (°C)	Vol Flow (Nm ³ /hr)	Limit Value (m ³ /hr)
Boiler 1 (Gas Duty Boiler)	Boiler 1 (Gas Duty Boiler)	190	Not Possible	Not Possible
Boiler 2 (Oil stand by Boiler)	Boiler 2 (Oil stand by Boiler)	198	Not Possible	Not Possible

Note 1: Boiler results are referenced to STP, temperature 273K and pressure 101.325 kPa, dry gas and 3% oxygen as per licence requirements.

Table 3.4: Results of Flue Gas Analysis for Gas Duty Boiler

Parameter	Measured Value	Limit Value
CO (mg/Nm ³)	14.2	NA
NO _x as NO ₂ (mg/Nm ³)	94.0	NA
SO ₂ (mg/Nm ³)	< 4.1	NA
Combustion Efficiency	87%	NA

Note 1: Results quoted above are an average of the results during the sampling period.

Note 2: Results are referenced to standard temperature 273K and pressure 101.325 kPa, 3% oxygen, dry gas.

Note 3: Combustion efficiency is calculated based on the results of flue gas analysis and fuel type

Table 3.4: Results of Flue Gas Analysis for Oil stand by Boiler

Parameter	Measured Value	Limit Value
CO (mg/Nm ³)	8.3	NA
NO _x as NO ₂ (mg/Nm ³)	117.0	NA
SO ₂ (mg/Nm ³)	< 7.5	NA
Combustion Efficiency	83%	NA

Note 1: Results quoted above are an average of the results during the sampling period.

Note 2: Results are referenced to standard temperature 273K and pressure 101.325 kPa, 3% oxygen, dry gas.

Note 3: Combustion efficiency is calculated based on the results of flue gas analysis and fuel type

4.0 Operating Information

Boilers were operating as per normal site operations

5.0 Additional Information / Sampling Deviations

Table 5.1: Additional Information / Sampling Deviations

Emission Point	Deviation
Boiler 1 (Gas Duty Boiler)	Volumetric flow assesment not possible due to Port hole Diameter
Boiler 2 (Oil stand by Boiler)	Volumetric flow assesment not possible due to Port hole Diameter

**Environmental Liability Risk Assessment, Residuals Management Plans
and Financial Provision (EPA, 2006)**

MOONEY, Carl (IRELAND)

From: Carl Mooney
Sent: 06 October 2008 17:11
To: N.O'Carroll@epa.ie; elra@epa.ie
Subject: ELRA / CRAMP / FP - IPPC No P0056-01, P0073-01 & P0084-01

Dear Mrs. O'Carroll

The following is the information you are looking for.

Risk category as derived using the system set out in the guidance document

We would be activity complexity "G4" and therefore per the EPA guidance document "*are automatically classified as Risk Category 3*". This is very difficult to understand considering Cold Chon (Galway & Sligo) are in category C2/C1 (low enforcement) in the annual Methodology for Determining Enforcement Category of Licences, which also takes into consideration the same "G4" complexity. This is a complete contradiction and has massive potential consequences for the company as highlighted by IBEC in their submission to the agency in October 2005 in Section 5 "*IBEC would have real concerns that the banding of the risk categories (Step 1) makes it extremely difficult for any facility, irrespective of complexity, sensitivity or compliance record to be classified as low or medium risk*" and IBEC go on to highlight that this will "*fail to correctly differentiate between facilities which pose a potential risk and those who do not. Over classifying to high risk has significant implications for sites*". In Section 9 IBEC states "*Continuing to place further obligations on these firms where the environmental benefit is not proportional to the cost, cannot be sustainable.*".

Date of completion of your facility's ELRA

This has not been completed to date as this is not a condition or requirement within our IPPC License.

Date of completion of you facility's RMP/CRAMP

This has not been completed to date as this is not a condition or requirement within our IPPC License.

Details of the Financial Provision (i.e. Bonds, Cash, Environmental Insurance) that your facility currently has in place in accordance with the EPA guidance above

Financial provision for the rehabilitation of closed sites is divided into provision for "known" liabilities and "unknown" liabilities.

There are no financial instruments available to us to deal with **known liabilities** arising on closure on manufacturing sites on which the owner intends to continue operation for the foreseeable future, as distinct from landfill operation which by their nature has a measurable capacity and finite lifespan.

Creating a liability in our company accounts for these known liabilities under current accounting standards (IAS) will be difficult if not impossible in the absence of an actual closing date for manufacturing facilities which have been in operation for almost 50 years, where demand for its products is ongoing, where its owners continue to invest and have no intention of closing the site.

For **unknown liabilities** we consider that insurance is the most suitable financial instrument and is something that we can look at in the future. However it is important to note that IBEC stated in their submission "*It is IBEC's concern that a wide range of such financial instruments is not readily available.*".

The company has serious concerns on the consequences this will have on the business when it comes into effect for us. This was never more critical than now with the economic down turn where our business declined in 2008. IBEC stated in their submission in section 1 "*It is essential therefore, that the costs of establishing the risk is kept to a minimum and that financial guarantees are only obtained from companies where essential. The Agency must be cognisant of the significant cost pressures that face manufacturing companies in Ireland at present*".

We would however like to assure the agency that the company is committed to dealing with all known and unknown environmental liabilities that could arise. Our commitment to the environment has been effectively demonstrated over the years through the improvement in our Environmental performance, continued development of environmental controls, significant investment in infrastructural improvements, staff training etc.

We look forward to the planned seminar on the Environmental Liability Directive where we are sure this process will be a major talking point.

Thanks & Regards,

Carl Mooney.

On behalf of

- Cold Chon (Galway) Ltd. RE. IPPC No P0056-01
- Cold Chon Sligo RE. IPPC No. P0073-01
- Road Binders Ltd RE. IPPC No. P0084-01



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From: Niamh O'Carroll [mailto:N.O'Carroll@epa.ie]
Sent: 10 September 2008 17:49
To: Carl Mooney
Subject: RE: Proposed Conference 2009

Dear Mr Mooney,

Thank you for your prompt response to our request for information on compliance with the Environmental Liability Directive. We have noted your interest in attending a conference and request that you submit the following information

- Risk category as derived using the system set out in the guidance document
- Date of completion of your facility's ELRA
- Date of completion of your facility's RMP/CRAMP
- Details of the Financial Provision (i.e. Bonds, Cash, Environmental Insurance) that your facility currently has in place in accordance with the EPA guidance above.

If you have any queries regarding this matter, please do not hesitate to contact us.

Regards,

Niamh O'Carroll

*Niamh O'Carroll
Office of Environmental Enforcement*