Comhairle Contae Thiobraid Árann Thuaidh
North Tipperary County Council

Water Services Section,
Civic Offices,
Limerick Road,
Nenagh,
Co. Tipperary

The Administrator,
Office of Environmental Enforcement,
Environmental Protection Agency,
PO Box 3000,
Johnston Castle Estate,
Co. Wexford.

28/2/12

Re: AER for 2011 (Cloughjordan Agglomeration).
Licence Register Number: D0027-01.

Dear Sir/Madam,

Please find attached one original and one copy of a completed Annual Environmental Report for 2010 as per Condition 6.10 of the Waste Water Discharge Licence for Cloughjordan Agglomeration. The content of the Full PDF AER uploaded to the EPA website is a true copy of the original Annual Environmental Report.

Yours Sincerely,

_____
Jim McGuire,
Senior Engineer.

Annual Environmental Report 2011 Cloughjordan Agglomeration

Cloughjordan Agglomeration was issued with a Waste Water Discharge Licence on 21/03/11. Licence Register Number D0475-01.
This is the Annual Environmental Report (AER) for 2011 as required under Condition 6.10 of said Licence.
It contains the information required under Schedule D of the Licence.

1. **Discharges from the agglomeration**

   Cloughjordan Agglomeration uses the same primary discharge point and stormwater overflow as identified in the Waste Water Discharge Authorisation Licence Application. There have been no changes to these discharge points since the application was lodged in 2008.
   The primary discharge point was sampled 10 times in 2011, on two occasions before the licence was issued, and on eight occasions after the licence was issued. Since May, a composite sampler has been installed at the primary discharge point.
   Cloughjordan WWTP has difficulty satisfying the criteria set out under the Urban Waste Water Treatment Regulations.
   Many of the samples taken of the primary discharge since the WWDL was issued were not within the Emission Limit Values (ELV) for Cloughjordan as set out in Schedule A of the Licence. Four formal incident notifications were issued to the EPA in 2011. These notifications occurred in September, October and December 2011

   Please find attached an Excel Spreadsheet called **"Appendix No.1 Cloughjordan WWTP Final Effluent Test Results 2011"**. This spreadsheet shows all sample test results for Cloughjordan WWTP Final effluent in 2011.

2. **Summary report on (i) monthly influent monitoring and (ii) loading removal efficiencies**

   2.(i) In 2011, 7 composite influent samples were taken at Cloughjordan WWTP at regular intervals. Please find attached an Excel Spreadsheet called **"Appendix No.2(i) Cloughjordan WWTP Plant Influent Test Results 2011"** (This spreadsheet shows all sample test results for Cloughjordan WWTP Influent in 2011.)

   2(ii) Composite Final Effluent samples were also taken on the same days as the Plant Influent samples. By comparing the percentage reduction of the relevant parameters in the effluent samples, the loading removal efficiencies were estimated.
   Please find attached an Excel Spreadsheet called **"Appendix No.2(ii) Summary Report on Loading Removal Efficiencies Cloughjordan 2011"** (which gives a breakdown for all the parameters mentioned in **Schedule A:A.1**).

   The average BOD removal rate was 86.64%. The range varied from 73.89% to 96.29%.

The average Ammonia removal rate was 62.57%. The range varied from 39.21% to 77.96%.
The average COD removal rate was 86.61%. The range varied from 75.95% to 95.09%.
The average Suspended solids removal rate was 87.91%. The range varied from 74.61% to 97.36%.
The average Orthophosphate removal rate was 55.86%. The range varied from 39.6% to 79.44%.

3. **Data collection and reporting requirements under the Urban Waste Water Treatment Directive**

Cloughjordan Agglomeration's WWTP is included in North Tipperary County Council's 2011 Annual Waste Water Returns Report to the EPA. This report was lodged by North Tipperary County Council with the EPA by 26 February 2012.

4. **Complaints summary**

There have been no environmental complaints about Cloughjordan Agglomeration in 2011.

5. **Pollutant Release and Transfer Register- report for previous year**

A Pollutant Release and Transfer Register (Condition 4.14) has been completed for Cloughjordan Agglomeration for the year 2011. This report has been submitted electronically and is included in this AER.

6. **Pollutant Release and Transfer Register- report for current year**

There is no expected change from the 2011 PRTR for 2012.

7. **Ambient monitoring summary**

In 2011, ambient sampling consisted of 4 samples taken **(i)** upstream and **(ii)** downstream of the primary discharge point.
Please find attached 2 No. Excel Spreadsheets called **"Appendix No.7(i) Cloughjordan WWTP Upstream Test Results 2011"** and **"Appendix No.7(ii) Cloughjordan STP Downstream Test Results 2011"** attached. These spreadsheets show all test result values for samples taken upstream and downstream of Cloughjordan WWTP's Primary Discharge Point in 2011.
The ambient monitoring samples were compared to the criteria for calculating surface water ecological status and ecological potential as set out under Schedule 5 of the European Communities Environmental Objectives (Surface Waters) Regulations 2009. The grab sample upstream of Cloughjordan WWTP, was classified as having a "less than good" water status, by comparing the Total Ammonia, BOD and Orthophosphate parameters to the parameters set out in Schedule 5, although the water quality was approaching "good" status. Similarly, the grab sample taken downstream classified as having a "less than good" water status, by comparing the Total Ammonia, BOD and Orthophosphate parameters to the parameters set out in Schedule 5.

The Ballyfinboy River upstream of Cloughjordan WWTP is classified by the EPA as having a Q Status of Q4 (good quality). Similarly, the Ballyfinboy River downstream of Borrisokane WWTP is classified by the EPA as having a Q Status of Q3-4 (moderate quality). The discharge from Cloughjordan WWTP may have a small impact on the water quality of the Ballyfinboy River.

8. Storm water overflow inspection and assessment report

No Storm water overflow inspection and assessment report has been completed in 2011. It is expected to be completed in the coming years.
North Tipperary County Council visually inspects the overflow daily and has found that the stormwater overflow only performs in stormwater conditions.

9. Reported incidents summary

There were 4 reported incidents in 2011. These occurred in September, October and December 2011.

10. **Any other items**

North Tipperary Co. Council intends to install ferric sulphate dosing facilities at Cloughjordan WWTP in 2012, in order to remove phosphorus compounds from the final effluent. In addition, mechanical refurbishment of trickling filters, commenced in 2011, will be completed in the first half of 2012. These and other operational measures will improve the performance of Cloughjordan WWTP.

Appendix No.1 Cloughjordan WWTP Final Effluent Test Results 2011

StationName	SampleLabCode	SampleDate	Ammonia	Ammonia	Ammonium	BOD	BOD	Chemical Oxygen Demand	COD	Chloride	Nitrates	Nitrites	O-Phos
			(mg/l as N)	ELV	(mg/l NH4)	(mg/l O2)	ELV	(mg/l O2)	ELV	(mg/l Cl)	(mg/l N03 as N)	(mg/l NO2 as N)	(mg/l PO4 as P)
Cloughjordan STP final effluent	11470037	20/01/2011	10.53	10	13.53	18	25	54	125	86.62	9.26	0.6	1.896
Cloughjordan STP final effluent	11470127	22/02/2011	13.54	10	17.4	48	25	135	125	69.46	4.41	0.23	2.175
Cloughjordan STP final effluent	11470303	03/05/2011	22.63	10	29.08	58	25	158	125	142.1	10.25	0.5	4.11
Cloughjordan STP final effluent	11470380	14/06/2011	17.71	10	22.76	45	25	147	125	93.65	3.54	3.279	2.222
Cloughjordan STP final effluent	11470432	30/06/2011	15.53	10	19.96	51	25	129	125	73.34	0.27	1.145	1.91
Cloughjordan STP final effluent	11470548	09/08/2011	10.53	10	13.53	25	25	114	125	115.89	2.37	1.043	3.31
Cloughjordan STP final effluent	11470602	01/09/2011	26.54	10	34.11	76	25	212	125	105.03	0.29	2.03	2.9
Cloughjordan STP final effluent	11470693	11/10/2011	20.71	10	26.62	59	25	170	125	97.37	BLD	6.839	2.67
Cloughjordan STP final effluent	11470772	08/11/2011	10.5	10	13.5	19	25	50	125	69.31	2.57	0.329	1.38
Cloughjordan STP final effluent	11470843	08/12/2011	10.88	10	13.98	54	25	138	125	47.9	1.44	0.45	1.2

Appendix No.1 Cloughjordan WWTP Final Effluent Test Results 2011

SampleDate	O-Phos	O-Phos	pH	pH	Sulphate	Suspended Solids	SS	Temperature	Total Nitrogen	Total Oxidised Nitrogen	Total Phosphorus
	ELV	(mg/l PO4)	(pH units)	ELV	(mg/l SO4)	(mg/l)	ELV	(oC)	(mg/l as N)	(mg/l TON as N)	(mg/l as P)
20/01/2011	3	5.815	7.58	6.0 -9.0	25.68	20	35	6.8		9.86	2.32
22/02/2011	3	6.67	7.62	6.0 -9.0	27.82	54	35	8.7		4.64	3.08
03/05/2011	3	12.61	7.72	6.0 -9.0	38.47	55.2	35	11.8		10.75	5.28
14/06/2011	3	6.82	7.43	6.0 -9.0	30.7	56.4	35	13.7	24.8	6.82	3.4
30/06/2011	3	5.84	7.78	6.0 -9.0	28.36	66	35	17.6	19	1.41	3.16
09/08/2011	3	10.17	7.86	6.0 -9.0	39.18	54.8	35	14	28.8	3.41	4.48
01/09/2011	3	8.9	8.02	6.0 -9.0	70.27	88	35	13.9	28.8	2.33	5.12
11/10/2011	3	8.19	7.69	6.0 -9.0	36.26	61.2	35	14.5	27.2	6.84	4.08
08/11/2011	3	4.25	7.79	6.0 -9.0	44.05	19.6	35	10.3	16.4	2.9	2.16
08/12/2011	3	3.69	8.05	6.0 -9.0	28.6	67.6	35	9.3	18.9	1.89	2.36

Appendix No.2(i) Cloughjordan WWTP Plant Influent Test Results 2011

StationName	SampleLabCode	SampleDate	Ammonia	Ammonium	BOD	Chemical Oxygen Demand	Chloride	Nitrates	Nitrites	O-Phos	O-Phos	pH
			(mg/l as N)	(mg/l NH4)	(mg/l O2)	(mg/l O2)	(mg/l Cl)	(mg/l N03 as N)	(mg/l NO2 as N)	(mg/l PO4 as P)	(mg/l PO4)	(pH units)
Cloughjordan STP influent	11470379	14/06/2011	56.93	73.18	1213	2992	246.8	BLD	0.042	10.81	33.17	8.17
Cloughjordan STP influent	11470430	30/06/2011	55.61	71.47	435	920	118.7	0.06	0.025	6.33	19.43	7.92
Cloughjordan STP influent	11470547	09/08/2011	47.78	61.42	257	760	167.42	BLD	0.029	5.48	16.81	8
Cloughjordan STP influent	11470601	01/09/2011	43.66	56.12	532	2575	209.41	0.06	0.025	6.8	20.86	7.71
Cloughjordan STP influent	11470692	11/10/2011	47.77	61.4	226	707	139.58	0.04	0.02	4.67	14.33	7.83
Cloughjordan STP influent	11470771	08/11/2011	26.66	34.26	130	354	129.85	0.12	0.548	2.56	7.86	8.11
Cloughjordan STP influent	11470842	08/12/2011	2.99	3.85	8	36	36.07	4.07	0.404	0.73	2.24	7.72

Appendix No.2(i) Cloughjordan WWTP Plant Influent Test Results 2011

SampleDate	Sulphate	Suspended Solids	Temperature	Total Nitrogen	Total Oxidised Nitrogen	Total Phosphorus
	(mg/l SO4)	(mg/l)	(oC)	(mg/l as N)	(mg/l TON as N)	(mg/l as P)
14/06/2011	68.69	2140	14.9	67.6	BLD	13
30/06/2011	64.71	456	16.8	62.5	0.08	10.05
09/08/2011	52.95	470	13.6		BLD	9.4
01/09/2011	55.13	1313	13.1	71.2	0.08	12.2
11/10/2011	47	241	14.8	61	0.06	7.45
08/11/2011	43.98	168	10.4	28.2	0.67	4.65
08/12/2011	23.4	18	9		4.48	1.11

Appendix 2(ii) Summary Report on Loading Removal Efficiencies at Cloughjordan WWTW in 2011

2011 % Reductions

Date	BOD	COD	Suspended Solids	Ammonia	Orthophosphate
14/06/2011	96.29018961	95.0868984	97.36448598	68.891621	79.44496
30/06/2011	88.27586207	85.97826087	85.52631579	72.073368	69.82622
09/08/2011	90.27237354	85	88.34042553	77.96149	39.59854
01/09/2011	85.71428571	91.76699029	93.29779132	39.212093	57.35294
11/10/2011	73.89380531	75.95473833	74.60580913	56.646431	42.82655
08/11/2011	85.38461538	85.87570621	88.33333333	60.615154	46.09375

2011 % Reductions

	Average Value	Max Value	Min Value
BOD	86.64	96.29	73.89
COD	86.61	95.09	75.95
S.Solids	87.91	97.36	74.61
Ammonia	62.57	77.96	39.21
Orthophosphate	55.86	79.44	39.6

Appendix No.7(i) Cloughjordan WWTP Upstream Test Results 2011

StationName	SampleLabCode	SampleDate	Ammonia	Ammonium	BOD	Chemical Oxygen Demand	Chloride	Conductivity @ 20°C	Dissolved Oxygen	Nitrates	Nitrites
			(mg/l as N)	(mg/l NH4)	(mg/l O2)	(mg/l O2)	(mg/l Cl)	(uS/cm)	(ppm O2)	(mg/l N03 as N)	(mg/l NO2 as N)
Cloughjordan STP upstream	11470381	14/06/2011	0.01	0.013	2.2	16	20.89	642	11.24	1.71	0.007
Cloughjordan STP upstream	11470549	09/08/2011	BLD	BLD	2	19	20.9	654	11.4	1.72	BLD
Cloughjordan STP upstream	11470694	11/10/2011	0.058	0.074	1.8	28	21	653	8	1.06	BLD
Cloughjordan STP upstream	11470844	08/12/2011	0.039	0.05	1.5	32	19.03	589	9.8	1.95	0.013

Appendix No.7(i) Cloughjordan WWTP Upstream Test Results 2011

SampleDate	O-Phos	pH	SampleDate	Sulphate	Suspended Solids	Temperature	Total Nitrogen	Total Oxidised Nitrogen	Total Phosphorus
	(mg/l PO4)	(pH units)		(mg/l SO4)	(mg/l)	(oC)	(mg/l as N)	(mg/l TON as N)	(mg/l as P)
14/06/2011	0.055	7.89		19.1	3.6	13.5	1.9	1.71	0.04
09/08/2011	0.09	8.18		13.09	4	14.4	2.1	1.72	0.07
11/10/2011	0.05	7.94		24.41	1.6	14.1	2.8	1.05	0.02
08/12/2011	0.045	7.89		22.6	6.8	8.1	2.8	1.96	0.09

Appendix No.7(ii) Cloughjordan WWTP Downstream Test Results 2011

StationName	SampleLabCode	SampleDate	Ammonia	Ammonium	BOD	Chemical Oxygen Demand	Chloride	Conductivity @ 20°C	Dissolved Oxygen	Nitrates	Nitrites
			(mg/l as N)	(mg/l NH4)	(mg/l O2)	(mg/l O2)	(mg/l Cl)	(uS/cm)	(ppm O2)	(mg/l N03 as N)	(mg/l NO2 as N)
Cloughjordan STP downstream	11470382	14/06/2011	0.05	0.064	1.9	16	22.29	654	9	2.2	0.017
Cloughjordan STP downstream	11470550	09/08/2011	0.019	0.025	1.9	14	21.13	663	9.58	2.16	BLD
Cloughjordan STP downstream	11470695	11/10/2011	0.064	0.083	1.7	28	21.34	664	7.34	1.37	BLD
Cloughjordan STP downstream	11470845	08/12/2011	0.091	0.117	1	11	18.9	599	9.22	2.26	0.014

Appendix No.7(ii) Cloughjordan WWTP Downstream Test Results 2011

SampleDate	O-Phos	O-Phos	pH	Sulphate	Suspended Solids	Temperature	Total Nitrogen	Total Oxidised Nitrogen	Total Phosphorus
	(mg/l PO4 as P)	(mg/l PO4)	(pH units)	(mg/l SO4)	(mg/l)	(oC)	(mg/l as N)	(mg/l TON as N)	(mg/l as P)
14/06/2011	0.041	0.125	7.84	19.56	2.8	13.2	2.5	2.22	0.05
09/08/2011	0.039	0.118	7.96	17.87	3.2	13.4	2.5	2.16	0.09
11/10/2011	0.025	0.077	7.86	24.55	2.4	14.1	1.6	1.37	0.04
08/12/2011	0.017	0.052	7.82	28.1	6.8	8	3.1	2.28	0.06

Environmental Protection Agency

Guidance to completing the PRTR workbook

AER Returns Workbook

Version 1.1.13

REFERENCE YEAR	2011

1. FACILITY IDENTIFICATION

Parent Company Name	North Tipperary County Council
Facility Name	Cloughjordan Waste Water Treatment Plant
PRTR Identification Number	D0475
Licence Number	D0475-01

Waste or IPPC Classes of Activity

No.	class_name
30.4	General

Address 1	Water Services Section
Address 2	Civic Offices
Address 3	Limerick Road
Address 4	Nenagh, County Tipperary
	Tipperary
Country	Ireland
Coordinates of Location	-8.050070652 52.947
River Basin District	IEGBNISH
NACE Code	3700
Main Economic Activity	Sewerage
AER Returns Contact Name	Kevin McDonnell
AER Returns Contact Email Address	kmcdonnell@northtippcoco.ie
AER Returns Contact Position	Technician
AER Returns Contact Telephone Number	067 44833
AER Returns Contact Mobile Phone Number	087 0579426
AER Returns Contact Fax Number	067 31771
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
5(f)	Urban waste-water treatment plants

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 ?	

4.1 RELEASES TO AIR Link to previous years emissions data | PRTR# : D0475 | Facility Name : Cloughjordan Waste Water Treatment Plant | Filename : Cloughjordan AER 2011 PRTR UWWTP Emission Calculation Toolset V4 0 270111.xls | Re 05/03/2012 12:39

SECTION A : SECTOR SPECIFIC PRTR POLLUTANTS

RELEASES TO AIR					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
			Method Used					
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
01	Methane (CH4)	E	ESTIMATE	EPA UWWTP Tool v4.0	0.0	0.0	0.0	0.0
02	Carbon monoxide (CO)	E	ESTIMATE	EPA UWWTP Tool v4.0	0.0	0.0	0.0	0.0
03	Carbon dioxide (CO2)	E	ESTIMATE	EPA UWWTP Tool v4.0	0.0	5798.1	0.0	5798.1
05	Nitrous oxide (N2O)	E	ESTIMATE	EPA UWWTP Tool v4.0	0.0	0.1	0.0	0.1
07	Non-methane volatile organic compounds (NMVOC)	E	ESTIMATE	EPA UWWTP Tool v4.0	0.0	0.0	0.0	0.0
08	Nitrogen oxides (NOx/NO2)	E	ESTIMATE	EPA UWWTP Tool v4.0	0.0	0.0	0.0	0.0
11	Sulphur oxides (SOx/SO2)	E	ESTIMATE	EPA UWWTP Tool v4.0	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 AIR					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
			Method Used					
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)

RELEASES TO AIR					Please enter all quantities in this section in KGs			
POLLUTANT		METHOD			QUANTITY			
			Method Used					
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: Cloughjordan Waste Water Treatment Plant

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

4.2 RELEASES TO WATERS

Link to previous years emissions data

| PRTR# : D0475 | Facility Name : Cloughjordan Waste Water Treatment Plant | Filename : Cloughjordan AER 2011 PRTR UWWTP Emission Calculation Toolset V4 0 05/03/2012 12:39

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					Please enter all quantities in this section in KGs			
POLLUTANT					QUANTITY			
			Method Used					
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
44	1,2,3,4,5,6-hexachlorocyclohexane(HCH)	E	ESTIMATE	EPA UWWTP Tool v4.0	0.0	0.0	0.0	0.0
34	1,2-dichloroethane (EDC)	E	ESTIMATE	EPA UWWTP Tool v4.0	0.004	0.004	0.0	0.0
25	Alachlor	E	ESTIMATE	EPA UWWTP Tool v4.0	0.001	0.001	0.0	0.0
61	Anthracene	E	ESTIMATE	EPA UWWTP Tool v4.0	0.001	0.001	0.0	0.0
17	Arsenic and compounds (as As)	E	ESTIMATE	EPA UWWTP Tool v4.0	0.071	0.074	0.0	0.003
27	Atrazine	E	ESTIMATE	EPA UWWTP Tool v4.0	0.005	0.005	0.0	0.0
91	Benzo(g,h,i)perylene	E	ESTIMATE	EPA UWWTP Tool v4.0	0.0	0.0	0.0	0.0
18	Cadmium and compounds (as Cd)	E	ESTIMATE	EPA UWWTP Tool v4.0	0.004	0.004	0.0	0.0
28	Chlordane	E	ESTIMATE	EPA UWWTP Tool v4.0	0.0	0.0	0.0	0.0
30	Chlorfenvinphos	E	ESTIMATE	EPA UWWTP Tool v4.0	0.0	0.0	0.0	0.0
79	Chlorides (as Cl)	E	ESTIMATE	EPA UWWTP Tool v4.0	17704.5	18425.1	0.0	720.6
31	Chloro-alkanes, C10-C13	E	ESTIMATE	EPA UWWTP Tool v4.0	0.015	0.016	0.0	0.001
19	Chromium and compounds (as Cr)	E	ESTIMATE	EPA UWWTP Tool v4.0	0.026	0.027	0.0	0.001
20	Copper and compounds (as Cu)	E	ESTIMATE	EPA UWWTP Tool v4.0	0.126	0.131	0.0	0.005
82	Cyanides (as total CN)	E	ESTIMATE	EPA UWWTP Tool v4.0	0.124	0.129	0.0	0.005
33	DDT	E	ESTIMATE	EPA UWWTP Tool v4.0	0.001	0.001	0.0	0.0
70	Di-(2-ethyl hexyl) phthalate (DEHP)	E	ESTIMATE	EPA UWWTP Tool v4.0	0.089	0.093	0.0	0.004
36	Dieldrin	E	ESTIMATE	EPA UWWTP Tool v4.0	0.015	0.016	0.0	0.001
37	Diuron	E	ESTIMATE	EPA UWWTP Tool v4.0	0.007	0.007	0.0	0.0
38	Endosulphan	E	ESTIMATE	EPA UWWTP Tool v4.0	0.0	0.0	0.0	0.0
65	Ethyl benzene	E	ESTIMATE	EPA UWWTP Tool v4.0	0.006	0.006	0.0	0.0
88	Fluoranthene	E	ESTIMATE	EPA UWWTP Tool v4.0	0.001	0.001	0.0	0.0
83	Fluorides (as total F)	E	ESTIMATE	EPA UWWTP Tool v4.0	24.89	25.9	0.0	1.01
40	Halogenated organic compounds (as AOX)	E	ESTIMATE	EPA UWWTP Tool v4.0	0.17	0.177	0.0	0.007
42	Hexachlorobenzene (HCB)	E	ESTIMATE	EPA UWWTP Tool v4.0	0.0	0.0	0.0	0.0
43	Hexachlorobutadiene (HCBD)	E	ESTIMATE	EPA UWWTP Tool v4.0	0.0	0.0	0.0	0.0
89	Isodrin	E	ESTIMATE	EPA UWWTP Tool v4.0	0.004	0.004	0.0	0.0
23	Lead and compounds (as Pb)	E	ESTIMATE	EPA UWWTP Tool v4.0	0.071	0.074	0.0	0.003
45	Lindane	E	ESTIMATE	EPA UWWTP Tool v4.0	0.0	0.0	0.0	0.0
21	Mercury and compounds (as Hg)	E	ESTIMATE	EPA UWWTP Tool v4.0	0.005	0.005	0.0	0.0
68	Naphthalene	E	ESTIMATE	EPA UWWTP Tool v4.0	0.033	0.034	0.0	0.001
22	Nickel and compounds (as Ni)	E	ESTIMATE	EPA UWWTP Tool v4.0	0.552	0.574	0.0	0.022
64	Nonylphenol and Nonylphenol ethoxylates (NP/NPEs)	E	ESTIMATE	EPA UWWTP Tool v4.0	0.005	0.005	0.0	0.0
69	Organotin compounds (as total Sn)	E	ESTIMATE	EPA UWWTP Tool v4.0	0.001	0.001	0.0	0.0
48	Pentachlorobenzene	E	ESTIMATE	EPA UWWTP Tool v4.0	0.0	0.0	0.0	0.0
71	Phenols (as total C)	E	ESTIMATE	EPA UWWTP Tool v4.0	0.879	0.915	0.0	0.036
50	Polychlorinated biphenyls (PCBs)	E	ESTIMATE	EPA UWWTP Tool v4.0	0.001	0.001	0.0	0.0
72	Polycyclic aromatic hydrocarbons (PAHs)	E	ESTIMATE	EPA UWWTP Tool v4.0	0.057	0.059	0.0	0.002
52	Tetrachloroethylene (PER)	E	ESTIMATE	EPA UWWTP Tool v4.0	0.032	0.033	0.0	0.001
73	Toluene	E	ESTIMATE	EPA UWWTP Tool v4.0	0.008	0.008	0.0	0.0
12	Total nitrogen	E	ESTIMATE	EPA UWWTP Tool v4.0	435.36	473.69	0.0	38.33
76	Total organic carbon (TOC) (as total C or COD/3)	E	ESTIMATE	EPA UWWTP Tool v4.0	2450.2	2549.9	0.0	99.7
13	Total phosphorus	E	ESTIMATE	EPA UWWTP Tool v4.0	167.73	178.06	0.0	10.33
57	Trichloroethylene	E	ESTIMATE	EPA UWWTP Tool v4.0	0.005	0.005	0.0	0.0
77	Trifluralin	E	ESTIMATE	EPA UWWTP Tool v4.0	0.0	0.0	0.0	0.0
75	Triphenyltin and compounds	E	ESTIMATE	EPA UWWTP Tool v4.0	0.0	0.0	0.0	0.0
60	Vinyl chloride	E	ESTIMATE	EPA UWWTP Tool v4.0	0.004	0.004	0.0	0.0
78	Xylenes	E	ESTIMATE	EPA UWWTP Tool v4.0	0.02	0.021	0.0	0.001
24	Zinc and compounds (as Zn)	E	ESTIMATE	EPA UWWTP Tool v4.0	2.532	2.635	0.0	0.103

* 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					Please enter all quantities in this section in KGs			
POLLUTANT					QUANTITY			
			Method Used					
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)

RELEASES TO WATERS					Please enter all quantities in this section in KGs			
POLLUTANT					QUANTITY			
			Method Used					
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
238	Ammonia (as N)	M	OTH	ISE 5 day BOD test Standard Methods for the Analysis of Water and wastewater	972.0	1041.71	0.0	69.71
303	BOD	M	OTH	Edition 21	3162.0	3840.41	0.0	678.41
306	COD	M	OTH	HACH Method	8716.0	10180.38	0.0	1464.38
362	Kjeldahl Nitrogen	M	OTH	Standard Methods for the	1492.0	1609.33	0.0	117.33
327	Nitrate (as N)	M	OTH	Standard Methods for the	0.0	117.33	0.0	117.33
372	Nitrite (as N)	M	OTH	Standard Methods for the	0.0	1.12	0.0	1.12
332	Ortho-phosphate (as PO4)	M	OTH	Standard Methods for the	416.84	426.82	0.0	9.98
240	Suspended Solids	M	OTH	Standard Methods for the	3797.0	4550.62	0.0	753.62

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

5. ONSITE TREATMENT & OFFSITE TRANSFERS OF WASTE

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 Non Haz Waste: Name and Licence/Permit No of Recover/Disposer	Haz Waste : Address of Next Destination Facility Non Haz Waste: Address of Recover/Disposer	Name and License / Permit No. and Address of Final Recoverer / Disposer (HAZARDOUS WASTE ONLY)	Actual Address of Final Destination i.e. Final Recovery / Disposal Site (HAZARDOUS WASTE ONLY)
						M/C/E	Method Used					
Within the Country	19 08 05	No	19.62	sludges from treatment of urban waste water	R10	E	Volume Calculation	Offsite in Ireland	Roscrea waste water treatment plant,Waste Water Discharge Licence D0025-01	Monastery Road ,Roscrea ,Co. Tipperary.,Tipperary,Ireland		
Within the Country	19 08 01	No	3.0	screenings	D5	E	Volume Calculation	Offsite in Ireland	AES Ltd.,WCP/OY/08/601/101	AES Ltd.,Springfort Cross,Nenagh,Co. Tipperary,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