



Administration,
Environmental Licensing Programme,
Office of Climate, Licensing & Resource Use,
Environmental Protection Agency,
Headquarters,
PO Box 3000,
Johnstown Castle Estate,
County Wexford

17th June 2010

Re: D0469-01 – Unionhall Waste Water Discharge Licence Application – Reply to Notice in accordance with Regulation 18(3)(b) of the Waste Water Discharge (Authorisation) Regulations 2007

Dear Mr. Clabby,

I refer to your letter of the 20th April 2010 concerning the above. The following is our reply to your request for further information in accordance with Regulation 18(3)(b) dealing in sequence with the points raised:

1. Section B.10 – Capital Investment Programme

Unionhall sewerage scheme is not included in the WSIP 2010-2012. The scheme will be included in Cork County Council's Assessment of Needs for 2013-2015.

2. Section B.12 – Foreshore Licence

The foreshore licence for the proposed work is not yet applied for. The scheme will be included in Cork County Council's Assessment of Needs for 2013-2015.

3. Plant Capacity

The septic tank capacity is 63m³ and the existing maximum summer PE of the village was calculated at 634PE. When using a value of 230l/h/d we calculate a DWF of $(230 \times 634) / 1000 = 145.8\text{m}^3$ per day.

In this instance the tank has exceeded its capacity by 1.3 DWF $\{(145.8 - 63) / 63 = 1.3\}$, therefore reducing the retention time of the wastewater within the septic tank prior to discharge. In times of heavy rainfall the overflow by-passes the septic tank and is discharged through the primary outfall pipe.

4. Monitoring of Primary Discharge

The wastewater discharging at the primary discharge point in Unionhall receives primary treatment. The UWWT Regulations do not specify a monitoring programme for this type of discharge and therefore there are no updated monitoring results

available. Please see revised Table E4 attached for the most up to date monitoring data.

5. Monitoring of Receiving Waters

There is no monitoring regime for sampling coastal waters in the Surface Water Regulations and therefore there are no updated monitoring results available. Please see revised Table E4 attached for the most up to date results available

6. Environmental Quality Objectives Regulations (S.I. No. 272 of 2009)

This application was lodged with the EPA in June 2009 and this regulation did not come into effect until July 2009.

According to the SWRBD Glandore Harbour into which the agglomeration discharges to has an "unassigned status" and the risk assessment overall value of 1b "probably at risk". The table in attachment F identifies the Criteria for calculating surface water ecological status and ecological potential and compares the results of the ambient water sample taken in the receiving waters.

7. Assessment of Effects of the Waste Water Discharges

With reference to Circular L8/08 and the flow diagram in Appendix 1, it can be concluded that the wastewater discharging from the agglomeration will not have significant effects on any relevant European sites in the vicinity. The agglomeration is discharging to a well exchanged body of water with unlimited dilution capacity. The site or discharge is not located within a designated area.

The only Natura 2000 site in the area are Myross Wood (Site Code 1070) which is approximately 2km away from the discharge point and is designated for the Fern "*Trichomanes speciosum*".

List of Attachments

Attachment F
Table E4

Yours sincerely,



Niall O'Mahony,
Senior Engineer,
Cork County Council

Enclosures


Tables

- Revised Table E4

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D0469-01 Attachment E4 (Revised) Union Hall -

Attachment E4 Union Hall Inlet			E4 Union Hall Discharge		
Sample Date	28/05/2009		Sample Date	28/05/2009	
Sample	Influent		Sample	Effluent	
Sample Code	GT773		Sample Code	GT774	
Flow M ³ /Day	*		Flow M ³ /Day	*	
pH	8.2		pH	7.1	
Temperature °C	*		Temperature °C	*	
Cond 20°C	7230		Cond 20°C	10780	
SS mg/L	87		SS mg/L	99	
NH ₃ mg/L	8.6		NH ₃ mg/L	9.8	
BOD mg/L	162		BOD mg/L	83	
COD mg/L	327		COD mg/L	347	
TN mg/L	18.5		TN mg/L	18.8	
Nitrite mg/L	<0.10		Nitrite mg/L	<0.10	
Nitrate mg/L	<0.50		Nitrate mg/L	<0.50	
TP mg/L	1.69		TP mg/L	1.7	
O-PO4-P mg/L	0.89		O-PO4-P mg/L	0.91	
SO4 mg/L	373.5	possible saline interference	SO4 mg/L	544.8	possible saline interference
Phenols µg/L	<0.10		Phenols µg/L	<0.10	
Atrazine µg/L	<0.01		Atrazine µg/L	<0.01	
Dichloromethane µg/L	<1		Dichloromethane µg/L	<1	
Simazine µg/L	<0.01		Simazine µg/L	<0.01	
Toluene µg/L	<0.28		Toluene µg/L	<0.28	
Tributyltin µg/L	*		Tributyltin µg/L	<0.10	
Xylenes µg/L	<1		Xylenes µg/L	<1	
Arsenic µg/L	1.9		Arsenic µg/L	*	
Chromium ug/L	<20		Chromium ug/L	<20	
Copper ug/L	<20		Copper ug/L	<20	
Cyanide µg/L	<5		Cyanide µg/L	<5	
Fluoride µg/L	423		Fluoride µg/L	460	
Lead ug/L	<20		Lead ug/L	<20	
Nickel ug/L	<20		Nickel ug/L	<20	
Zinc ug/L	36.6		Zinc ug/L	<20	
Boron ug/L	<20		Boron ug/L	<20	
Cadmium ug/L	<20		Cadmium ug/L	<20	
Mercury µg/L	<0.2		Mercury µg/L	<0.2	
Selenium µg/L	69.8	possible saline interference	Selenium µg/L	97.8	possible saline interference
Barium ug/L	<20		Barium ug/L	<20	

 detection limit raised due to sample matrix interference

D0469-01 Attachment E4 (Revised) Union Hall -

D0469-01 attachment E4 tabulation of monitoring results for compliance purposes against SI 272 of 2009 for comparison purposes where results are below LOD for analytical method in column highlighted in blue

Attachment E4 Union Hall Upstream Transitional

Sample Date	28/05/2009		values below test LOD
Sample	River	n/a	n/a
Sample Code	GT770		n/a
Flow M ³ /Day	*		n/a
pH	8.1		n/a
Temperature °C	*		n/a
Cond 20°C	47800		n/a
SS mg/L	35		n/a
NH ₃ mg/L	0.5"	"saline interferenc	n/a
BOD mg/L	1		n/a
COD mg/L	28		n/a
TN mg/L	0.26		n/a
Nitrite mg/L	<0.10		0.004
Nitrate mg/L	<0.50		0.001
TP mg/L	<0.05		n/a
O-PO4-P mg/L	<0.05		0.0
SO4 mg/L	no result available	"saline interferenc	n/a
Phenols µg/L	<0.10		n/a
Atrazine µg/L	<0.01		n/a
Dichloromethane µg/L	<1		n/a
Simazine µg/L	<0.01		n/a
Toluene µg/L	<0.28		n/a
Tributyltin µg/L	<0.02		n/a
Xylenes µg/L	<1		n/a
Arsenic µg/L	<0.96		n/a
Chromium ug/L	<20	"saline interferenc	<1.0
Copper ug/L	<20		<1.0
Cyanide µg/L	<5		n/a
Fluoride µg/L	791	"saline interferenc	n/a
Lead ug/L	<20	"saline interferenc	9.08
Nickel ug/L	<20		1.24
Zinc ug/L	<20		4.44
Boron ug/L	2159		n/a
Cadmium ug/L	<20		<1.0
Mercury µg/L	<0.2		n/a
Selenium µg/L	3.2		n/a
Barium ug/L	<20		10.16

Attachment E4 Union Hall Downstream Transitional

Sample Date	28/05/2009		values below test LOD
Sample	River	Comments	n/a
Sample Code	GT771		n/a
Flow M ³ /Day	*		n/a
pH	8.1		n/a
Temperature °C	*		n/a
Cond 20°C	48400		n/a
SS mg/L	17		n/a
NH ₃ mg/L	0.5	"saline interference	n/a
BOD mg/L	2		n/a
COD mg/L	27		n/a
TN mg/L	0.24		n/a
Nitrite mg/L	<0.10		0.0035
Nitrate mg/L	<0.50		0.00765
TP mg/L	<0.05		n/a
O-PO4-P mg/L	<0.05		0.0
SO4 mg/L	no result available	"saline interference	n/a
Phenols µg/L	<0.10		n/a
Atrazine µg/L	<0.01		n/a
Dichloromethane µg/L	<1		n/a
Simazine µg/L	<0.01		n/a
Toluene µg/L	<0.28		n/a
Tributyltin µg/L	<0.02		n/a
Xylenes µg/L	<1		n/a
Arsenic µg/L	2.8		n/a
Chromium ug/L	<20	"saline interference	<1.0
Copper ug/L	<20		<1.0
Cyanide µg/L	<5		n/a
Fluoride µg/L	765	"saline interference	n/a
Lead ug/L	<20		<1.0
Nickel ug/L	<20		1.35
Zinc ug/L	<20		<1.0
Boron ug/L	107.1		n/a
Cadmium ug/L	<20		<1.0
Mercury µg/L	<0.2		n/a
Selenium µg/L	1766	"saline interference	n/a
Barium ug/L	<20		<1.0

Attachment F

- Ambient Coastal Water Quality v's EQR/S.

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Application D0469-01 Unionhall

Ambient Coastal Water Quality

<i>Physico-chemical conditions</i>	<i>Ecological quality ratio/standard</i>	<i>2009 ambient sampling results</i>
	<i>Good boundary</i>	
	<i>Coastal (All Types)</i>	
<i>Oxygenation conditions Table 9</i>	<i>Coastal water body</i>	<i>Ambient sampling results</i>
Biochemical Oxygen Demand (BOD) (mgO ₂ /l)	No Limit	-
<i>Acidification Status Table 9</i>	<i>Coastal Water Body</i>	<i>Ambient sampling results</i>
pH (individual values)	No Limit	-
<i>Nutrient conditions Table 9</i>	<i>Coastal Water body</i>	<i>Ambient sampling results</i>
Total Ammonia (mg N/l)	No Limit	-
Molybdate Reactive Phosphorus (MRP) (mg P/l)	No Limit	-
<i>Specific pollutants Table 10</i>	<i>Other surface waters AA-EQS</i>	<i>Ambient sampling results</i>
Phenol	46	<0.1µg/L
Toulene	No Limit	-
Xylene	No Limit	-
Arsenic	No Limit	-
Total Chromium	82	<1µg/L
Copper (depending on water hardness)	No Limit	-
Cyanide	No Limit	-
Flouride	No Limit	-
Zinc (depending on water hardness)	No Limit	-
<i>Priority Substances Table 11</i>	<i>Other surface waters AA-EQS</i>	<i>Ambient sampling results</i>
Atrazine	0.6	<0.01µg/L
Dichloromethane	20	<1.0µg/L
Simazine	1	<0.01µg/L
Lead and its compounds	7.2	<1.0µg/L
Nickel and its compounds	20	1.35µg/L
<i>Priority Hazardous Substances Table 12</i>	<i>Other surface waters AA-EQS</i>	<i>Ambient sampling results</i>
Cadmium and its compounds (depending on water hardness)	0.2	<1.0µg/L
Mercury and its compounds	0.05	<0.2µg/L

Note the following:

- The black results are within the EQR/S.
- The blue results may break the EQR/S.
- The red results break the EQR/S.
- The results highlighted grey are at the limit of detection.