



**OFFICE OF ENVIRONMENTAL  
SUSTAINABILITY**

**Licensing Programme Memorandum**

<b>To:</b>	Mr. Dara Lynott, Director
<b>FROM:</b>	Gavin Clabby
<b>C.C:</b>	-
<b>DATE:</b>	11 August 2016
<b>RE:</b>	Request for a Technical Amendment to IE licence Register No. P0269-02, held by Basta Parsons Limited CRO No. 280319

**Background**

Basta Parsons Limited (hereafter referred to as Basta, or the licensee) has requested a Technical Amendment (TA) to IE Licence Reg No. P0269-02; this TA relates to the installation's emissions to sewer.

The company was first licensed on the 16<sup>th</sup> January 1998 under class 12.3<sup>1</sup> of the First Schedule of the EPA Act 1992 as amended. Its licensable activity is the electroplating of zinc window and door furniture with copper, nickel or chrome.

The installation is located in a commercial area on the western side of the town of Tubbercurry, County Sligo. It currently discharges to the Tubbercurry River, via an un-named stream; the Tubbercurry River is classified by the Agency as a 'red dot' site (seriously polluted). It should be noted here that the Agency does not attribute this pollution to Basta, but to the municipal discharges from the Tubbercurry agglomeration (i.e. organic/nutrient load). However, the River Basin Management Plan for the Western RBD classifies the river as 'at risk' from not achieving good status, and attributes this risk jointly to diffuse pollution, the municipal discharges and the discharges from Basta.

The original licence was reviewed for the purposes of the EO regulations<sup>2</sup> in March 2013, whereby the process water emission limit values (ELVs) were revised to aim for the achievement of good status in the Tubbercurry River. The current river status is bad (macroinvertebrates); physico-chemical status is moderate; the WFD target date is 2021.

The revised licence (P0269-02) specified ELVs for the discharge to water, which were broadly in keeping with the original ELVs and were applicable from the date of grant of the revised licence; however, the revised licence also specified an additional set of

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<sup>1</sup> Class 12.3: The surface treatment of metal and plastic materials using an electrolytic or chemical process where the volume of the treatment vats exceeds 30 m<sup>3</sup>.

<sup>2</sup> The European Communities Environmental Objectives (Surface Waters) Regulations 2009 and The European Communities Environmental Objectives (Ground Water) Regulations 2010

more stringent ELVs which were applicable from 22<sup>nd</sup> December 2015; it was these stricter limits (lower BOD, orthophosphate and ammonia limits) which were set with the aim of achieving good status for the Tubbercurry River. The revised licence also required the relocation of the discharge from the un-named stream to the Tubbercurry River.

It also worth noting here that the revised licence was subsequently amended in December 2013, to bring it in to conformity with the provisions and requirements of Council Directive 2010/75/EU (Industrial Emissions Directive).

### **Technical Amendment Request**

Basta submitted a request to the Agency, on the 18<sup>th</sup> December 2015, for a TA to its licence, relating to the following:

- To discharge its process effluent to the Irish Water sewer network for Tubbercurry, rather than directly to the Tubbercurry River (only direct discharge is provided for in the current licence).
- That the process effluent discharge limits revert to the pre-22<sup>nd</sup> December 2015 ELVs specified in the current licence.

The licensee states that a discharge to sewer is the preferred option for the Agency's Office of Environmental Enforcement, Irish Water and Sligo County Council, as well as for itself.

### **Assessment**

Under the licensee's proposal, the installation's pre-treated process effluent would be discharged to Irish Water's sewer network for the Tubbercurry agglomeration in accordance with the pre-22<sup>nd</sup> December 2015 limits specified in the current licence. The licensee is not proposing an increase in the current allowable maximum volumetric flows of 192 m<sup>3</sup>/day or 8m<sup>3</sup>/hour.

The Tubbercurry agglomeration incorporates a municipal waste water treatment plant (MWWTP), which has secondary treatment (trickling filters/humus tank). It has a design capacity of approximately 1,400 p.e. The MWWTP final effluent discharges to the Tubbercurry River. These urban wastewater discharges from the Tubbercurry agglomeration are licenced by the Agency under waste water discharge licence (Reg. No. D0092-01).

The maximum discharge volumes from the installation would represent about 10.5 % of effluent discharge volumes from the MWWTP. The most recent annual environmental report submitted to the Agency under D0092-01, indicates that the MWWTP is in compliance with the discharge limits for COD, pH and temperature, but not in compliance for cBOD and suspended solids. The same report states that the MWWTP is operating significantly over its hydraulic design capacity, but within its organic load capacity. Notwithstanding the hydraulic capacity issue the report states the plant is capable of 85% reduction efficiency for BOD. As part of upgrade works for the Tubbercurry agglomeration, Irish Water plan to complete a new MWWTP and a new outfall to the River Moy (works not commenced but are included in current Capital Investment Programme; completion date 2017).

Documents submitted by the licensee indicate that Irish Water has given its consent to the discharges from the installation based on the pre-22<sup>nd</sup> December 2015 limits specified in the current licence.

Any ELV's applied by the Agency to this proposed discharge must satisfy the following criteria:

The treatment provided on-site at the installation must satisfy the consent conditions specified by Irish Water.

It must be demonstrated that the level of treatment of an installation's effluent, on and off site, is collectively equivalent to BAT. BAT for the installation's licensable activity is specified in the BAT Guidance Note for the Surface Treatment of Metals and Plastics Materials (EPA 2008) and the Reference Document on Best Available Techniques for the Surface Treatment of Metals and Plastics (European Commission 2006).

In granting a licence for an installation, and in accordance with Section 83(5)(a)(iii) of the EPA Act 1992 as amended, as well as in accordance with Articles 5 and 7 of S.I. 272 of 2009, the Agency must ensure that the quality of any relevant receiving water is not impaired or that the relevant Environmental Quality standards are not exceeded.

As can be seen from table below, there are sixteen parameters characterising the discharges from the installation. As also can be seen from the table the majority of the parameters have BAT associated emission levels (BAT-AELs).

The resultant concentrations specified in column 4 below indicate the maximum concentration of the installation's effluent following on and off-site treatment. These maximum concentrations are all well below the corresponding BAT-AELs specified in column 2. Note that the figures in column 4 are based on *dilution only*, and do not take into account any further reduction in concentration achieved by the MWWTP treatment process itself.

Also, comparing columns 4 and 5, it can be seen that, even with minimal dispersion<sup>3</sup> at the point of discharge from the Tubbercurry WWTP, it is unlikely that the environmental quality standards<sup>4</sup> (EQSs) for the Tubbercurry River will be breached due to the installation's discharges<sup>5</sup>.

It should be noted here that, due to marginal assimilative capacity in the river, the pre-22<sup>nd</sup> June 2015 discharge limit for cadmium (0.1 mg/l) is not recommended for transposal the amended licence. Rather, after brief consultation with the licensee, a limit of 0.075 mg/l is proposed.

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<sup>3</sup> Dry weather flow in the Tubbercurry River is 864 m<sup>3</sup>/day; 5.5 dilutions available for maximum allowable discharge at this minimum river flow.

<sup>4</sup> EQSs as specified in Schedule 5 of *European Communities Environmental Objectives (Surface Waters) Regulations 2009* as amended.

<sup>5</sup> Compliance with the EQS for cadmium will, in the short term, be marginal. However, the completion of the new Tubbercurry MWWTP (and discharge point) will obviate any long-term concerns.

*Summary of proposed discharges to sewer*

<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>
<b>Parameter</b>	<b>BAT-AEL</b>	<b>Irish Water consent / Proposed Final ELVs</b>	<b>After on and off site treatment</b>	<b>EQS</b>
Temperature (°C)	-	<b>25</b>	-	-
pH (-)	6-9	<b>6-9</b>	-	-
Toxicity (TU)	5	5	--	-
	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>	<b>mg/l</b>
BOD	25	<b>20</b>	<2.1	2.6
COD	500	<b>100</b>	<10.5	-
Suspended Solids	35	<b>30</b>	<3.15	-
Fats Oils and Grease	10	<b>20</b>	<2.1	-
Nitrates	-	<b>15</b>	<1.56	-
Ammonia	10	<b>10</b>	<0.105	0.14
Orthophosphate	2	<b>2</b>	<0.21	0.075
Cyanide	0.2	<b>0.05</b>	0.005	-
Zinc	2	<b>0.5</b>	0.053	0.1
Nickel	2	<b>0.5</b>	0.053	0.034
Copper	2	<b>0.5</b>	0.053	0.03
Chromium VI	2	<b>0.1</b>	0.011	0.008
Cadmium	-	<b>0.075</b>	0.008	0.002

The ELV's proposed above are, therefore, considered to be in accordance with current BAT for the sector. The limits, as specified, also transpose the consent requirements of Irish Water, and furthermore, ensure that the installation's discharges will not result in the breaching the relevant EQSs for the Tubbercurry River

Given the above it is considered that the recommended ELVs for this discharge to sewer are considered to satisfy the requirements of the IED, the WFD, and the EPA Act 1992 as amended.

Notwithstanding the data in the table above, it is considered that a connection to the Tubbercurry sewer network would be a desirable option; In addition to the treatment received at the on-site WWTP, the installation's discharges would receive a further 85% BOD reduction at the Tubbercurry MWWTP. This option would effectively reduce the pre-22<sup>nd</sup> June 2015 BOD limit of 20 mg/l to 3 mg/l (much lower than the post-22<sup>nd</sup> June 2015 limit of 13 mg/l for the direct discharge specified in the current licence).

Furthermore, a connection to the sewer network will allow the installation's effluent to avail of more efficient treatment and larger receiving waters when Irish Water's upgrade works are completed in 2017.

It would therefore be prudent to amend the licence to provide for the proposed connection to sewer. In doing so the amended licence should require that the discharges to waters cease upon connection to sewer. Furthermore, in the unlikely event of the abandonment of the proposed connection, or to discourage significant delays in the connection, the stricter post-22<sup>nd</sup> June 2015 limits should remain for discharges to waters in the amended licence.

A condition in the current licence which requires a proposal for the relocation of the discharges to waters should also remain in the licence; however, the relevant dates in the condition should be amended to allow for any additional time required to relocate the discharge (in the unlikely event of the abandonment of the sewer connection).

### **Appropriate Assessment**

The installation is set in an urban location on the outskirts of the town of Tubbercurry. The installation was previously screened for appropriate assessment. The proposed project is limited to alterations to the process effluent discharges. Rather than discharging directly to the Tubbercurry river, the licensee proposes to divert its pre-treated process effluent to sewer, whereupon it would be conveyed for further treatment at the Tubbercurry MWWTP before discharging into the Tubbercurry river. This river subsequently flows into the River Moy, which forms part of the extensive River Moy SAC (site code: 002298). There are no other European sites which are hydrologically linked to the installation. It is therefore reasonable to conclude that the project's zone of influence is limited to this European site (see appendix for details).

A screening for Appropriate Assessment was undertaken to assess, in view of best scientific knowledge and the conservation objectives of the site, if the activity, individually or in combination with other plans or projects, is likely to have a significant effect on any European Site. In this context, particular attention was paid to the European site on the River Moy (SAC site code: 002298).

The Agency considered, for the reasons set out below, that the activity is not directly connected with or necessary to the management of any European site and that it can be excluded, on the basis of objective information, that the activity, individually or in combination with other plans or projects will have a significant effect on any European site, and accordingly the Agency determined that an Appropriate Assessment of the activity was not required.

This determination was made in light of the nature of the alterations to the emissions to the environment; the connection of the installation to the sewer network will allow further reduction of the BOD and nutrient load in its process discharge; in particular when the proposed upgrade of the Tubbercurry MWWTP has been completed. It has therefore, been determined that the project is not likely to have a significant negative effect on a European Site.

### **Consultation with OEE**

Helen Boyce of the Office of Environmental Enforcement (OEE) was consulted in relation to this TA request. OEE confirmed that the licensee has not relocated the final discharge point from the un-named stream to the Tubbercurry River (as required by Condition 6.19 of the current licence), and rather, the licensee is continuing with its proposal to connect to the sewer network. OEE furthermore confirmed that it is satisfied with the proposed connection to sewer.

### **Recommendation**

For the reasons outlined above I recommend that the requested licence amendment be approved under Section 96(1)(c) of the EPA Acts as amended, as set out in the attached Recommended Technical Amendment.

Signed:

A handwritten signature in blue ink is written over a solid black horizontal line. The signature is stylized and appears to be the initials 'GC'.

Gavin Clabby Inspector, OES.

Details of European sites considered within zone of influence of installation.

<b>European Site (site code)</b>	<b>Distance/ Direction from installation</b>	<b>Qualifying interests</b>  (* denotes a priority habitat)	<b>Conservation objectives</b>
River Moy SAC (site code: 002298),	5 km downstream	<p><b>Habitats:</b></p> <p>Active raised bogs*</p> <p>Degraded raised bogs still capable of natural regeneration</p> <p>Depressions on peat substrates of the Rhynchosporion</p> <p>Alkaline fens</p> <p>Old sessile oak woods with <i>Ilex</i> and <i>Blechnum</i> in the British Isles</p> <p>Alluvial forests with <i>Alnus glutinosa</i> and <i>Fraxinus excelsior</i> (Alno-Padion, Alnion incanae, Salicion albae)*</p> <p><b>Species:</b></p> <p>White-clawed Crayfish <i>Austropotamobius pallipes</i></p> <p>Sea Lamprey <i>Petromyzon marinus</i></p> <p>Brook Lamprey <i>Lampetra planeri</i></p> <p>Salmon <i>Salmo salar</i></p> <p>Otter <i>Lutra lutra</i></p>	As per NPWS (2015) Conservation objectives for River Moy SAC [002298]. Generic Version 4.0 Department of Arts, Heritage and the Gaeltacht (dated 13/02/2015).