

Headquarters  
P.O. Box 3000  
Johnstown Castle Estate  
County Wexford  
Ireland

TECHNICAL AMENDMENT C  
TO  
WASTE LICENCE

<b>Licence Register Number:</b>	W0041-01
<b>Licensee:</b>	Shannon Environmental Services Limited
<b>Location of Facility:</b>	Smithstown Industrial Estate, Shannon, County Clare.



## *Reasons for the Decision*

The Environmental Protection Agency is satisfied, on the basis of the information available, that subject to compliance with the conditions of licence Reg. No. W0041-01 granted on 05/05/2000, and amended on 11/10/2005 and 21/12/2006 as well as any amendments noted herein, any emissions from the activity will comply with and not contravene any of the requirements of Section 40(4) of the Waste Management Acts 1996 to 2007.

## *Technical Amendment*

In pursuance of the powers conferred on it by Section 42B(1)(c) of the Waste Management Acts 1996 to 2007, the Agency amends Licence Reg. No. W0041-01, granted to Shannon Environmental Services Limited, Smithstown Industrial Estate, Shannon, County Clare.

Henceforth, the licence shall be read in conjunction with the Amendment set out below, which shall be cited as Amendment C.

This technical amendment is limited to the following :



# Amendments

## Interpretation

WSA	Water Services Authority
Mass Flow Limit	An emission limit value which is expressed as the maximum mass of a substance which can be emitted per unit time. The limit is usually expressed in kilograms per hour (kg/h).

*Amend Interpretation section of the existing licence to include the above terms*

## Conditions of Licence

- 5.1 Only those waste types listed in the *Tables E.1.2 & E.1.3 – Amended Version 2008 – Updated 18<sup>th</sup> February 2008* shall be accepted at the facility. No asbestos waste, potentially infectious healthcare waste or unsegregated household, municipal, commercial or industrial waste shall be accepted at the facility.

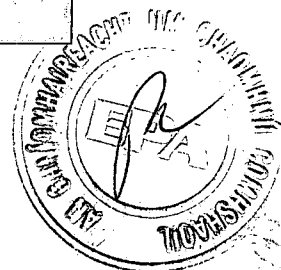
*Amend condition 5.1 of the existing licence to read as above.*

- 5.6 Waste shall be stored in designated areas, protected as may be appropriate against spillage and leachate run-off. The waste shall be clearly labelled and appropriately segregated. The licensee shall ensure that, in advance of transfer to another person, waste shall be classified, packaged and labelled in accordance with National, European and any other standards which are in force in relation to such labelling.

*Amend condition 5.6 of the existing licence to read as above.*

- 5.18 Waste shall only be accepted at the facility or sent off-site for recovery or disposal from the facility by Local Authority waste collection or transport vehicles or holders of waste permits, unless exempted or excluded, issued under the Waste Management (Collection Permit) Regulations 2007, or as may be amended.

*Amend condition 5.18 of the existing licence to read as above.*



7.13 In the case of composite sampling of aqueous emissions from the operation of the facility, a separate composite sample or homogeneous sub-sample (of sufficient volume as advised) should be refrigerated immediately after collection and retained as required for EPA or WSA use.

*Amend condition 7.13 of the existing licence to read as above.*

## Schedules to Licence

### Schedule F Monitoring

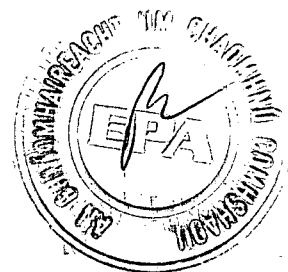
Table F.2.2 Monitoring of emissions to air at monitoring point X2

Parameter	Monitoring Frequency	Analysis Method/Technique
Total Organic Carbon (as C)	Monthly <sup>Note 1,2</sup>	Standard Method
Waste gas flowrate	Monthly <sup>Note 2</sup>	Standard Method
Hydrogen chloride (as HCl)	Monthly	Standard Method
Sulphur oxides (as SO <sub>2</sub> )	Monthly	Standard Method
Nitrogen oxides (as NO <sub>2</sub> )	Monthly	Standard Method
Ammonia (as NH <sub>3</sub> )	Monthly	Standard Method

Note 1: The licensee shall in addition, on a quarterly basis, carry out an analysis which shall include those organic compounds which are likely through normal process operations to be diverted to the waste gas streams.

Note 2: The licensee shall submit a report to the Agency, before 01 September 2008, on the feasibility of installing a continuous TOC and flow monitor on X2 for use once the reconfiguration of the ducts results in a flow exceeding 5,000m<sup>3</sup>/hour.

*Amend Table F.2.2, as referenced in Schedule F Monitoring of the existing licence, as above.*



## G.1 Emissions to Air

**Emission Point Reference No:** X2  
**Minimum discharge height:** 7.5m<sup>Note 1</sup>  
**Volume to be emitted:** Maximum rate per hour: 1,600 m<sup>3</sup><sup>Note 2</sup>

Parameter	Emission Limit Value mg/m <sup>3</sup>	Mass Flow Limit kg/hour
Total Organic Carbon (as C)	50	0.5
Hydrogen chloride (as HCl)	10	0.15
Sulphur oxides (as SO <sub>2</sub> )	300	1.8
Nitrogen oxides (as NO <sub>2</sub> )	300	1.8
Ammonia (as NH <sub>3</sub> )	30	0.15

Note 1: The licensee shall, prior to commencement of the ammonium bifluoride process, submit to the Agency a review of the stack height of X2 and the operational volumetric flowrate having regard to Condition 7.3.

Note 2: This may be increased to 6,000m<sup>3</sup>/hour with the agreement of the Agency as part of site improvement works to minimise emissions from fugitive and minor emission points. The mass flow limits shall remain unchanged.

*Amend Schedule G 1 Emissions to Air of the existing licence as above.*



## G.2 Emissions to Sewer

Emission Point Reference No:

X1

Volume to be emitted:

Maximum in any one day: 250 m<sup>3</sup>

Maximum rate per hour: 20 m<sup>3</sup>

Parameter	Emission Limit Value	
	mg/l	kg/day
Temperature	43 °C (max)	
pH	6 - 10	
Toxicity	10 TU	
Colour	200 mg/l Pt/Co	
BOD	2000	-
COD	3000	-
Suspended Solids	400	-
Sulphides (as S)	10	-
Sulphates (as SO <sub>4</sub> )	1500	250
Detergents	80	-
Phosphorous (as P)	50	5
Phenols	3	0.2
Ammonia (Total)	250	25
Nitrates	100	17.5
Silver	2	0.025
Aluminium	10	0.25
Cadmium	0.5	-
Cobalt	10	0.25
Chromium (III)	10	-
Chromium (VI)	0.05	-
Total Chromium	-	0.25
Copper	10	1.25
Mercury	0.05	-
Iron	20	2.5
Nickel	20	1.25
Lead	0.5	-
Tin	2	-
Zinc	20	1.25
Arsenic	1	0.15
Cyanide	0.5	-
Chlorides	3000	375
Fluoride	10	-
Organohalogens	0.15	0.03
Fats,Oils & Grease	50	-

Note 1: Toxic unit (tu) = 100/48hour EC<sub>50</sub>

*Amend Schedule G.2 of the existing licence as above.*



**Table H.1 Waste Categories and Quantities**

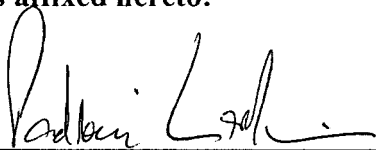
Waste Type	Maximum tonnes per annum
Hazardous Wastes <sup>Note 1</sup>	20,000
Non-hazardous wastes <sup>Note 1</sup>	14,000
<b>Total</b>	<b>34,000</b>

Note 1: as specified in Condition 5.1

*Amend Table H. 1 as referenced in Schedule H of the existing licence as above.*

**Sealed by the seal of the Agency on this the 20th day of March 2008**

**PRESENT when the seal of the Agency  
was affixed hereto:**



**Dr. Padraic Larkin, Director/Authorised Person**

