

Eve O'Sullivan

Subject: Killycronaghan Landfill H0366-01 - unsolicited information

From: James O'Neill <james.oneill@ftco.ie>
Sent: 09 July 2020 14:07
To: Ewa Babiarczyk <E.Babiarczyk@epa.ie>
Subject: Killycronaghan - Ammonia vs. Ammoniacal Nitrogen

Ewa,

Please see below from my colleague.

Regarding the EPA's query on the comparison of surface water monitoring results for 'ammoniacal nitrogen as N' against the surface water Environmental Quality Standards (EQS) thresholds for 'Total Ammonia' (as per *European Communities Environmental Objectives (Surface waters) regulations 2009 – S.I. No. 272 of 2009*)

FT can confirm that this comparison is appropriate and that no conversion of monitoring results or the EQS or use of an alternative quality threshold value is required.

As stated in the EPA document entitled '*Parameters of Water Quality – Interpretation and Standards (2001)*' total ammonia is defined as 'total ammonia (NH_3 and NH_4^+)', i.e. total ammonia is the sum of both 'free' ammonia as NH_3 and 'saline' NH_4^+ present in the environment.

Surface water analysis was conducted by ALS Environmental applying method 'TM099' for the determination of 'ammoniacal nitrogen as N' concentration in samples. For method TM099 – Determination of Ammoniacal Nitrogen in Aqueous Samples, ALS define ammoniacal nitrogen as 'both free ammonia (NH_3) and ammonium (NH_4) present in a sample', therefore application of this method is appropriate for comparison against the EQS for 'Total Ammonia'.

Please let me know if this answers your query.



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