P0636-02

COMHAIRLE CONTAE MHAIGH EO

Aras an Chontae, Caislean a 'Bharraigh, Contae Mhaigh Eo.
Teileafóin (094) 90 24444 Fax (094) 90 23937
www.mayococo.ie

Your Ref. Our Ref.

28th March, 2006

Ms. Pernille Hermansen,
Inspector,
Office of Licensing & Guidance,
EPA Headquarters,
P.O. Box 3000,
Johnstown Castle Estate,
Co. Wexford.

Re: Reg. No. 762 Baxter Healthcare SA

Dear Ms. Hermansen,

I refer to your letter dated 9th March 2006 regarding the above matter.

Please find enclosed copy of Report dated 28th March, 2006 from Mr. Brian O'Reilly, S.E., Water Services, Capital Works and copy of Report dated 24th March, 2006 from Tobin Consulting Engineers, for your attention.

Yours sincerely,

Pat Commons, S.E.O.,
Capital Works

Enc.

Comhairle Chontae Mhaigh Eo

Mayo County Council

Memo

To: *Mr. Pat Common. S.E.O. Water Services, Capital Works.*

From: *Brian O' Reilly, S.E., Water Services, Capital Works.*

Date: *28th March 2006*

Re: *Baxter Healthcare – Discharge Limits.*

I refer to the above, to correspondence from the EPA dated 9th March 2006 and to attached report from Tobin, Consulting Engineers dated 24th March 2005.

The Consultants report sets out the position regarding Baxter's current arrangements for disposing of their industrial and domestic effluent and also the new proposals whereby the load from Baxter will be delivered to the Treatment Works site in a dedicated pressurised main.

The separation of the Baxter and the municipal effluent and the delivery of the Baxter effluent in a dedicated main directly to the Treatment Works will permit a pre-treatment process (to a PE of 3000) to be developed which is appropriate to the effluent's characteristics, which are predominated by industrial glucose and dextrose based elements. The domestic foul effluent from employee facilities will be separately discharged to the town collections system, as per the current arrangement.

Discharge Limits

Baxter is currently carrying out alterations to the internal workings of their plant, and it is their intention to lower the hydraulic loading to an average of 1,200m3/d, with a maximum design flow of 1,500m3/d by changing the manufacturing processes. The maximum design flow of 1,500m3/d provides a margin of error and also provides some room for future expansion of the plant.

From a number of meetings and discussions with Baxter it has been agreed that the treatment capacity of the pre-treatment side stream unit shall be capable of treating wastewater with the following characteristics:-

Table 1 – Discharge Characteristics from Baxter Healthcare

Element	Average	95-Percentile	Maximum	Minimum
Dry Weather flow	1,200 (m3/d)	1,200 (m3/d)	1,500 (m3/d)	400 (m3/d)
BOD Loading	270 kg/d	695kg/d	2500 kg/d	10 kg/d
COD Loading	568 kg/d	1460 kg/d	6315 kg/d	35 kg/d
Ammonia	0.08 kg N/d	0.25 kg N/d	0.67 kg N/d	0.01 kg N/d
Sulphate	76 kg/d	167 kg/d	1220 kg/d	5 kg/d
Chloride	553 kg/d	1,300 kg/d	1,790 kg/d	93 kg/d
Fats, oils and grease	7.6 mg/l	19.7 mg/l	22.0 mg/l	1.0 mg/l
Detergents	0.43 mg/l	0.98 mg/l	1.30 mg/l	.09 mg/l

I recommend that these discharge limits, as agreed with Baxter and incorporated into the DBO documents for the Treatment Works upgrading, be adopted into the IPPC Licence also.

Brian O' Reilly, S.E.,
Water Services, Capital Works.

TOBIN

Consulting Engineers www.tobin.ie

Market Square, Castlebar, Co. Mayo, Ireland. Tel: +353 (0)94 9021401 Fax: +353 (0)94 9021534

Fairgreen House, Fairgreen Road, Galway, Ireland. Tel: +353 (0)91 565211 Fax: +353 (0)91 565398

Block 10-3, Blanchardstown Corporate Park, Dublin 15, Ireland. Tel: +353 (0)1 8030406 Fax: +353 (0)1 8030409

Northpoint House, New Mallow Road, Cork, Ireland. Tel: +353 (0)21 4308624 Fax: +353 (0)21 4309626

Bedford Place, Howley's Quay, Lower Shannon Street, Limerick, Ireland. Tel: +353 (0)61 416757 Fax: +353 (0)61 403373

Eimear Court, Market Square, Dundalk, Co. Louth, Ireland. Tel: +353 (0)42 9335107 Fax: +353 (0)42 9331718

Our Ref: **MFG/MMcD 1759/18c**

24 MAR 2006

24 March, 2006

Mr Brian O'Reilly BE
Senior Engineer
Water Services & Capital Works
Mayo County Council
Aras an Chontae
CASTLEBAR
County Mayo

Re: ***Baxter Healthcare - Discharge Limits***

Dear Mr O'Reilly,

We refer to the letter from the EPA, dated the 9th of March, and forwarded to us on the 20th of March, requesting comments on emission values for the discharge to sewers from Baxter Healthcare.

The processing plant at Baxter operates a 24 hour day, for five days a week throughout the year. The 24-hour day is divided into 8-hour shifts. The production process is only suspended for Christmas and for two weeks in August.

At present, the industrial effluent and the domestic effluent from the canteen, toilets etc. collect at two pumping stations under the ownership and control of Baxter. Pumping Station No. 1 is located on the west side of the building, and Pumping Station No. 2 is located on the east side of the building.

Currently the two pumping stations discharge to the public sewer, adjacent to the site boundary, at different manholes. At this stage the effluent from Baxter mixes with the municipal foul effluent from the town before discharging to the Castlebar Treatment Works for treatment.

Under the proposed upgrading works of the Castlebar Treatment Plant at Knockthomas, the DBO Contractor will be required to provide a single stream pre treatment unit to deal with the effluent from

Baxter. The load from Baxter will be delivered to the Treatment Works site in a dedicated pressurised main, and the system shall pre-treat the effluent from Baxter to a population equivalent of 3,000pe before the residual effluent discharges to the main municipal works for further treatment to the required standards.

The separation of the Baxter and the municipal effluent and the delivery of the Baxter effluent in a dedicated main directly to the Treatment Works will permit a pre-treatment process to be developed which is appropriate to the effluent's characteristic constituents, which are predominated by industrial glucose and dextrose based elements. The domestic foul effluent from employee facilities will be separately discharged to the town collection system, as per the current arrangement.

DISCHARGE LIMITS

Baxter is currently carrying out alterations to the internal workings of their plant, and it is their intention to lower the hydraulic loading to an average of 1,200 m^3/d, with a maximum design flow of 1,500m^3/d by changing the manufacturing processes. The maximum design flow of 1,500m^3/d provides a margin of error and also provides some room for future expansion of the plant.

From a number of meetings and discussions with Baxter we have agreed that the treatment capacity of the pre-treatment side stream unit shall be capable of treating wastewater with the following characteristics:-

Table 1 – Discharge Characteristics from Baxter Healthcare

Element	Average	95-Percentile	Maximum	Minimum
Dry Weather Flow	1,200 (m^3/d)	1,200 (m^3/d)	1,500 (m^3/d)	400 (m^3/d)
BOD Loading	270 kg/d	695 kg/d	2500 kg/d	10 kg/d
COD Loading	568 kg/d	1460 kg/d	6315 kg/d	35 kg/d
Ammonia	0.08 kg N/d	0.25 kg N/d	0.67 kg N/d	0.01 kg N/d
Sulphate	76 kg/d	167 kg/d	1220 kg/d	5 kg/d
Chloride	553 kg/d	1,300 kg/d	1,790 kg/d	93 kg/d
Fats, oils and grease	7.6 mg/l	19.7 mg/l	22.0 mg/l	1.0 mg/l
Detergents	0.43 mg/l	0.98 mg/l	1.30 mg/l	.09 mg/l

These discharge limits, as agreed with Baxter and incorporated into the DBO Documents for the Upgrading works at the Knockthomas Treatment Works, should be adopted into the IPPC Licence also.

I trust that the above addresses your needs and the needs of the EPA at this time.

Yours sincerely,

DAVID MELLETT