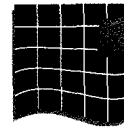


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Administration
Environmental Licensing Programme
Office of Climate, Licensing & Resource Use
PO BOX 3000
Johnstown Castle Estate
County Wexford



Marine Institute
Foras na Mara

14/08/2009

**Re: Application for Waste Water Discharge Licence – Agglomerations of
Kilrush, Bantry and ~~xxxxxxxxxx~~**

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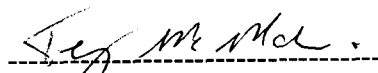
Dear Sir / Madam

Please find enclosed submission form the Marine Institute in relation to the above waste water discharge licence applications.

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Yours sincerely

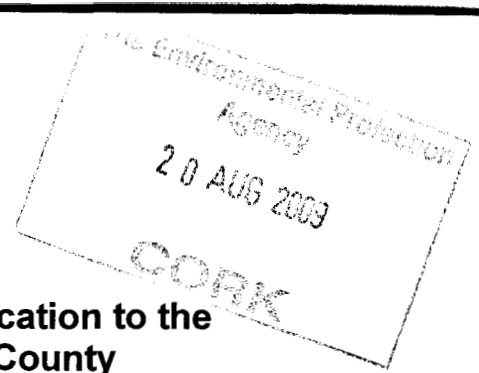
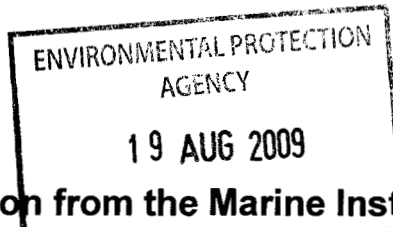
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Submission from the Marine Institute on the application to the EPA for a ~~waste water~~ discharge licence by Cork County Council, Western Division (Register Number D0168-01)

General considerations

The Marine Institute makes the following submission with regard to the waste water discharge licence application from Cork County Council, Western Division Council for the agglomeration of Bantry. In making this submission the primary concerns for the Marine Institute is to have regard to any potential impact on shellfish production and harvesting, principally by aquaculture operations, in the receiving environment.

The waste water discharge for the Bantry agglomeration discharges directly into inner Bantry Bay. Inner Bantry Bay is a designated shellfish water under the European Communities (Quality of Shellfish Waters) Regulations 2006 (S.I. 268 of 2006 as amended).

It is the view of the Marine Institute that appropriate licence conditions must be set that ensure no deterioration of water quality as judged by the parameters and standards laid down in S.I. 268 of 2006 as amended, in any shellfisheries impacted by the discharge. In addition where practical, conditions should be set that require the applicant to endeavour to meet the guideline values set for parameters in regulations.

Waste water discharges that impact on shellfisheries may cause seafood safety issues when such shellfish are consumed. The major risk arises from contamination of the shellfish by human viruses. Therefore the Marine Institute further believes that licence conditions for waste water discharges must take account of the impact on shellfisheries which may have implication for public health when such shellfish are harvested for consumption. Any discharge must not increase, and should preferably decrease, the public health risk associated with the consumption of impacted shellfish.

The Marine Institute considers that licence conditions for the discharge must allow for compliance for the whole fishery rather than the designated sampling point.

The Marine Institute notes the Government's policy as laid out in the Programme for Government 2007 - 2012. In particular the commitment that "*Over the next 5 years this Government will work to ensure that Ireland's waters are the most pristine in Europe*" and that the Government will "*Continue to invest in waste water schemes to ensure that discharges into our rivers, lakes and coastal waters meet the highest international standards*".

Specific Comments

Shellfish production and classification

Mussels are the main bivalve shellfish produced and harvested in the inner Bantry Bay.

Mussels produced in inner Bantry Bay area are currently (July 2009) classified as category B under the shellfish hygiene regulations (see <http://www.sfpa.ie/>) It is noted, however, that the South Chapel production zone has a seasonal B Classification for the period Dec – June but a C Classification at other times. The C classification represents a downgrade on previous Classifications and indicates a deterioration in the microbiological water quality in this production area.

The Marine Institute acknowledges and welcomes the construction of the new waste water treatment plant which will include secondary biological treatments. This represents an improvement to the waste water treatment infrastructure in the Bantry agglomeration as the effluent treatment currently provided is coarse screening only.

Unauthorised “rogue” discharges

It is noted that the Cork Council are aware of a number of “rogue” discharges into the culverted sections of the Alley and Mill rivers. Specific provisions should be made by the Local Authority to ensure that such discharges cease as soon as practicable.

Shellfish waters designation

The Marine Institute believes that;

- The standards for the WWTP discharges must be set on the basis of the receiving water being a designated shellfish water and a requirement to comply with all the standards in the European Communities (Quality of Shellfish Waters) Regulations 2006 (S.I. 268 of 2006).
- The standards for the WWTP should meet the guideline value for faecal coliforms in the whole shellfishery. To achieve this, disinfection of the final effluent may be required. A cost benefit analysis of fitting UV disinfection should be presented.

Primary discharge

The WWTP discharges secondary treated effluent into inner Bantry Bay. The WWTP is designed to serve a population equivalent of 6,000.

The Marine Institute believes that;

- The impact of the continuous discharge on the designated shellfish waters should be determined in conjunction with existing discharges and contamination sources that may impact the shellfishery and the overall impact aggregated. Failure to do so could lead non compliance with environmental standards.
- The licence conditions should be set that ensure that water quality standards in the designated shellfish water must not cause deterioration as judged by the water quality parameters and standards set out in the European Communities (Quality of Shellfish Waters) Regulations 2006 (S.I. 268 of 2006).
- The applicant should identify efforts to endeavour to meet guideline standards as required by the regulations. An evaluation of requirements to meet the guideline values should be laid out and built into the design for future improvements to the waste water works. Where an assessment is made that it is not possible to meet the required guideline values the reasons should be clearly identified.

Storm overflow discharges

The discharge of untreated effluent into shellfisheries can have a significant impact on the microbiological quality of shellfish. Contamination of shellfish by untreated effluent has been associated with outbreaks of illness where such shellfish have been consumed.

The Marine Institute believes that;

- The WWTP should be operated such that discharge of untreated effluent due to storm events is kept to a minimum.
- The frequency, duration and volume of significant overflow events must be recorded and reported as soon as practical to relevant bodies (Sea-Fisheries Protection Authority, Marine Institute, Food Safety Authority of Ireland and the Irish Shellfish Association) and on an annual basis.
- A programme of ongoing improvements to the network should developed with the aim of reducing, and if practical eliminating, the frequency and volume of untreated discharges to the receiving environment.

Emergency Overflows

The Marine Institute believes that;

- A system for detecting and recording the duration and volume of any emergency overflows must be in place. Such overflows must be reported immediately to the Sea-Fisheries Protection Authority, Marine Institute and Food Safety Authority of Ireland.

Microbiological Monitoring

From the documents presented it appears that the treatment works is designed to deliver a 80% reduction in faecal coliform loading in the final effluent. This appears to be low and more typically a 99% (2 log) reduction could be expected in secondary treated effluent.

The Marine Institute believes that;

- As a minimum, regular (fortnightly) monitoring of faecal coliform and *E. coli* levels in the influent and final effluent should be undertaken. Once a body of data showing compliance with the design standard criteria is in place there is scope to reduce the frequency of testing.

Public health

The consumption of sewage contaminated shellfish can represent a significant public health risk. The principle risk associated with consumption of such shellfish arising from contamination with human viruses.

The Marine Institute believes that;

- The discharge must not cause an increased risk to public health by causing further contamination of bivalve shellfish harvested for consumption.
- specific consideration should be given as to whether the discharge may cause an increased risk of viral contamination of shellfish in the designated shellfish water. An assessment should be made of the virus loading from the discharge, including the viral load from the hospital waste. The benefits of the specific proposal to provide a separate drainage system for the 2 acute intensive care wards in Bantry hospital is not clear. It is assumed that it is intended that this hospital effluent will be returned to the main effluent stream without additional treatment.

- If a risk of virus contamination in commercial shellfisheries is demonstrated consideration should be given to disinfection of the final effluent to reduce the viral load.

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