
M E M O R A N D U M

DATE: 2/7/98
TO: Each Member of the Board.
FROM: Cormac Mac Gearailt
RE: Macroom Mills Farms Ltd. (Toomevara Unit) - IPCL Application.

Application details	
<ul style="list-style-type: none"> • Class of activity 	<p>6.2 The rearing of pigs in installations, whether within the same complex or within 100 metres of that complex, where the capacity exceeds 1,000 units on gley soils or 3,000 units on other soils and where units have the following equivalents :-</p> <p style="padding-left: 20px;">1 pig = 1 unit. 1 sow = 10 units.</p> <p>Nature of activity Application in respect of 600 sow unit</p>
<ul style="list-style-type: none"> • Licence application received 	– 23/12/97
<ul style="list-style-type: none"> • Notices under Article 11(2)(b)(ii) issued: 	– 17/2/98 – 27/2/98
<ul style="list-style-type: none"> • Information under Article 11(2)(b)(ii) received: 	– 17/4/98 – 11/5/98
<ul style="list-style-type: none"> • Compliance with Article 10 	– 11/5/98
<ul style="list-style-type: none"> • Compliance with Art. 25 (E.I.S.) 	– Yes
<ul style="list-style-type: none"> • Local Authority: 	– Tipperary (NR) County Council
<ul style="list-style-type: none"> • Single media licences: 	– None held
<ul style="list-style-type: none"> • Site visits: 	– 10/02/98

Report on Proposed Determination of IPCL

Profile

This application is for a 1000 sow integrated pig production unit. Presently, the site consists of a 600 sow breeding unit. This facility will finish pigs to bacon weight (90kg). The applicant has applied for and received, planning permission for the extension to the existing facility and for retention of certain buildings presently existing. An EIS for the proposed development has been submitted with the IPCL application, and was deemed to be in Compliance with Article 25 on 23/12/97.

Waste

Operation of the existing unit will result in the production of approximately 3,432m³ of slurry per annum. Total storage available on the existing site is 2,429m³ (approx. 8

months). Operation of the proposed new integrated unit will result in the production of approximately 14,219m³ of slurry per annum. This figure includes washwater and soiled surface water. Total storage available on the proposed development will be 15,190 m³ (subtracting freeboard allowance). This is equivalent to approximately 12 months storage.

Slurry will be stored in underground slatted units in the new pig sheds which are individually accessed via dedicated slurry abstraction points. In the old section of the site, slurry is stored primarily in reception pits, and movement of slurry is controlled by means of sluice gates.

The annual quantity of Phosphate (as P) in slurry produced by the unit is estimated to be approximately 20.2 tonnes. No slurry will be allocated to lands with soil P levels over 10mg/l for grazing or cereals, and in excess of 15mg/l for other lands.

A significant portion of the spread lands were visited during the site visit. Generally the land and associated cordon sanitaire designations were found to be satisfactory. However in a limited number of locations, stream/river buffer zones were increased due to land slope, and certain lands were excluded due to poor drainage and proximity to residences and other sensitive habitations. Excluding all appropriate cordon sanitaire, the applicant has 787ha immediately available for spreading, with a further 647ha of reserve land available for immediate use. An additional 3023ha of land has been pledged in writing. Landspreading will be principally be carried out by farmers on whose land the slurry is being spread.

Overburden in the locality is of a satisfactory minimum thickness (confirmed >2m). The soil type is fertile and free draining and water tables were below depth of investigation (> 2.5m). Aquifers in the area are designated as poor. Due to the good quality of the land and the nature of farming in this region, the applicant has stated that significant problems in securing land for the spreading of slurry are not anticipated.

Other wastes produced at the site include pig carcasses, which will be contained in a sealed steel container and sent for rendering weekly. Waste veterinary products will be disposed of by returning to the supplier.

Domestic sewage from the present and proposed offices will be discharged to a septic tank. Currently, domestic sewage from the canteen is being discharged to the slurry tanks. The applicant will be required to redirect this sewage to a septic tank within six months of date of grant of licence (Condition 5.6).

Air

There are 4 residences located approximately 350m, and one located approximately 500m from this unit. There are no records of any complaints to Tipperary County Council (NR) relating to the facility currently at this site. Specific design aspects of the proposed unit, including slatted floors, addition of freeboard storage and venting of exhaust gases, are expected to reduce odour from the unit.

Carcasses will be held on site in covered steel skips, for no longer than one week (Condition 5.2), in order to minimise odours arising.

Landspreading will be carried out using low trajectory splashplate methods to minimise odours.

Water

Surface water from this activity will arise from uncontaminated roof water and will be discharged to a soakaway adjacent to the piggery. Subsurface investigations of the soakaway area have confirmed its suitability for percolation of water. A surface water monitoring chamber will be installed, which will intercept all uncontaminated surface water leaving the site. Sampling for visual conditions of surface water (colour and odour) will be required weekly, and BOD analysis will be required quarterly.

The applicant will be required to repair and install appropriate rain guttering on the present site within six months of date of grant of licence (Condition 7.1.2). Other works including inspection and repair of existing tanks, will also be required within six months of date of grant of licence, and at least every five years thereafter (Condition 7.2.7). The applicant will also be required to erect a partial earthen bund around both reception pits in order to protect surface water (Condition 7.2.8 (v)).

There are two rivers passing through the landspreading areas. The Ballintotty River (600m from site) and the Ollatrim River. There is a culvert, which ultimately leads to the Ollatrim River, located approximately 150m west of the unit.

Elevated levels of Nitrate Nitrogen have been detected in these rivers. Ambient surface water monitoring will be required on a quarterly basis at three locations within the spreadland areas. Two of these locations are on the Ollatrim River and one on the Ballintotty River. These monitoring points have been chosen to maximise exposure to landspreading areas utilised by this unit. The monitoring results of this sampling regime will be continuously assessed in the light of these elevated Nitrate levels. Nitrogen application rates from this facility may be adjusted in the future if deemed necessary.

Monitoring of ambient groundwater will be required on an annual basis at three locations in the vicinity of the unit. The applicant will also be required to provide a proposal to the Agency for monitoring of ambient groundwater within the area of the spreadlands. This shall be submitted within six months of date of grant of licence and thereafter as part of the NMP.

Noise

The primary sources of noise from pig units arise from the pigs themselves during feeding time (4x15min/day), and from trucks during delivery of feed (2hrs/week). However, considering common levels of noise produced by pig units and the distance

to the nearest dwellings (~350m), a noise problem due to activities at this site is not anticipated. Condition 6 set limits with regard to noise from activities on-site.

Submissions

Two submission were received relating to this development.

1. Mid-Western Health Board.

This submission primarily relates to monitoring of water supplies in the vicinity of the unit and the spreadland areas.

- This submission requests that bacteriological analysis be carried out of wells sampled as part of the IPC Licence application.

Response: Under the conditions of this proposed determination the applicant is required to analyse groundwater at three wells, located on and in the vicinity of the site for faecal coliforms, Nitrate and Ammonia. The applicant will also be required to propose a number of groundwater monitoring points in the spreadland areas, to the satisfaction of the Agency, which will also be sampled for the above parameters.

- This submission notes the location of two group water schemes near the catchment area of the spreadlands. It requests that these schemes be informed of the proposed development, and that the wells be monitored on a regular basis.

Response: The applicant has carried out the normal procedures concerning notification of the public, which include posting of a site notice and advertisement in a national newspaper. A proposal for monitoring of groundwater in the spreadlands, which is to the satisfaction of the Agency, is required under the conditions of this proposed determination. This shall be representative of ambient groundwater quality in the general catchment area of the spreadlands. Parameters monitored will be as described above.

- This submission states that there are no recommended buffer zones in the Teagasc Code of Practice for Landspreading which specifically protect wells.

Response: This proposed determination will require that the applicant comply with landspreading buffer zones as outlined. The following are the relevant exclusion distances:

Schedule 3(v) Buffer Zones for Landspreading of Organic Waste

No organic waste shall be spread within the following buffer zones:

Domestic wells ^{Note 1}	50m
Public water supplies ^{Note 1 & Note 2}	300 m or 100 days travel time

Note 1: The above distances to be increased if the gradient is greater than 6% (1:17).

Note 2: The appropriate distance depends on vulnerability and groundwater flow direction.

The submission again notes the requirement for monitoring of wells within the spreadland catchment. This is addressed as above.

- This submission also requests that a condition should exist in the IPC Licence whereby any accidental spillage or other event with environmental significance would have to be addressed by the licensee. This would include appropriate action and notification of relevant authorities.

Response:

These sentiments are comprehensively addressed under *Condition 3 (Notification)* of this proposed determination.

2. Dúchas , The Heritage Service.

This submission noted the presence of a protected species (White toed crayfish) in the Ballintotty River. This river is located approximately 600m from the unit. The Heritage Service requested that a cordon sanitaire of 100m be observed for the spreading of slurry around the river, and all drains and watercourses leading into the river.

Response:

The applicant was appraised of this situation and has adjusted the landbank accordingly.

Recommendation

It is recommended that the Board approve the proposed determination as submitted.

Signed

Cormac Mac Gearailt.