Sub No. 77

IFI Drumsna Office,
Drumsna
Carrick-on-Shannon
Co. Leitrim

Tel: 071 9624218

23rd November 2010

Administration
Office of Climate, Licensing and Resource Use
Environmental Protection Agency
PO Box 3000
Johnstown Castle
Co. Wexford

Re: Waste Licence Application, Ad Power Limited, Ballinaphull, Tibohine, Ballaghaderreen, Co. Roscommon
Ref: W0274-01

Dear Sir/Madam.

Inland Fisheries Ireland (IFI) has considered the above application, Environmental Impact Statement (EIS) and accompanying documentation and has the following comments to make:

When considering this development and the accompanying EIS, it is imperative that the project is considered in its entirety from the construction of the plant through to its operational phase.

Fisheries and Water Quality Data and assessment within the EIS
It is IFI's view that the EIS is inadequate in terms of its identification of potential risks to the watercourse. In relation to the information regarding the watercourse, it is wholly insufficient and aquatic life, including fish and invertebrates (food of fish) within this watercourse do not appear to have been considered. On this basis the current licence application and accompanying EIS should be deemed invalid. The authors have not

employed the relevant expertise at depth and IFI considers that serious consideration in terms of the aquatic environment has not been applied to this application. The likely detrimental affects in terms of the aquatic environment have not been demonstrated. The environmental pillar must given a proper weighting to comply with sustainability criteria and local agenda 21. This includes all requirements of the EIS legislation.

Section 4.5. (p.41) of the EIS states that the stream is possibly a tributary of the River Lung, it would be envisaged that in preparing a detailed and accurate EIS, the authors would have confirmed this and made some assessment of the watercourse and included measures for protection of the aquatic environment, water quality and fish species contained within the stream.

The stream which crosses this site is a trout bearing tributary of the River Lung. The Lung River is the main feeder stream for Lough Gara. Lough Gara is a proposed candidate Special Area of Conservation and a proposed Natural Heritage Area.

The River Lung is a good mixed fishery, noted particularly for its pike fishing and with good stocks of roach, bream and trout. There are good mayfly hatches and trout up to 3 lbs can be caught on the lake. Angling takes place on the River Lung downstream of Ballaghaderreen and along upstream of Lough Gara. The Lung River also supports crayfish and lamprey populations, lamprey are protected species under Annex II of the Habitats Directive. The overall impact of this development on the tributary stream running through the site, Lung River and Lough Gara and the Shannon catchment downstream must be considered.

Whilst this proposal does not propose to directly discharge to surface waters and given the proximity of the watercourse many of the chemicals and materials being handled and processed in large quantities on this site, present a high risk to the aquatic environment.

Table 5. presents one sample taken from the stream, the detection level accuracy of Total Nitrogen, BOD and suspended solids should all be improved given that a number of the wastes being accepted (as listed in the EIS) will have high levels of these chemical parameters. Baseline water quality data for the stream should be presented, showing samples results over a longer time frame, e.g. monthly samples taken over a one year period. This would allow for a more accurate measurement of any impacts on water quality from this development and would determine whether elevated levels, such as the 0.15 mg/l ammonia were seasonal, typical long term values or once off peaks.

A desktop study of water quality data from lung nearby stations with reference to water quality using q values and historical data could have been used to supplement water sample data. Categorisation of the watercourse should have been carried out with a view to achieving good status by 2015.

The EIS does not contain a biological assessment of the stream or its flora and fauna, or details of fish species present. The 2009 Surface Water Regulations should have been referred to within the EIS as the relevant standard, as should Salmonid Fish Regulations.

It is a stated objective of section 4.5. to 'provide mitigation measures to maintain a good water quality status for all waters impacted upon' yet there is very little proposed mitigation for surface waters (other than those recommended for human beings or in relation to groundwater). The EIS does not demonstrate any recognition of the potential damage of any an oil or waste spill, stripping of topsoil and the felling of forestry could have on the stream, aquatic life within, fish stocks, invertebrates and riparian zone.

Section 5.5 states 'Water quality will be measured bi-annually', but does not give details of which parameters will be measured. Also control site upstream and one downstream of park must be measures. A set list of parameters should be tested for (depending on the profiles of wastes which will be accepted) monthly samples should be taken in the first instance as six months is too great an interval if water pollution is occurring. Sample results should be copied to IFI, SHRBD within 2 weeks of sample date.

Consideration should have been given to events such as catastrophic failure of the plant and the assimilative capacity of the stream and the likely effects downstream of such an event.

Groundwater flow must be adequately described and understood and appropriate mitigation measures recommended. In some circumstances groundwater flow can constitute up to 90% of the flow in watercourses at dry weather flow. It is important that volumes required in terms of water abstraction to feed the processes within the Biopark are accurately quantified and that the impacts are assessed to ensure that no reduction in flow rates occurs within the stream. Any reduction in flow will impact on the assimilative capacity and dilution available within this stream (and watercourses downstream) to deal with discharges.

Information regarding digestion and other processes, types and nature of waste accepted and site design and layout.

A full chemical profile of the wastes which will be received by the plant should be presented. No reference is made in the EIS to the hazardous nature and high BOD's of dairy waste, sewage sludge and animal slurries and food waste, alcohols and the risk posed to the watercourse by the storage and transportation of these and if a spill/run off were to occur.

The are no specific details in relation to the treatment of methanol and sodium hydroxide, and the risk of explosion, methanol is highly flammable and therefore its storage is important to consider, details should also be given in relation to the likelihood of explosions if any due to chemical reaction or pressure. There is insufficient detail about the potential impacts on fish and water quality.

The EIS does not provide details of the chemical nature and profile of the digestate which will be landspread, this will be required by IFI to allow for an assessment the risks

regarding any run off from digestate spread areas to nearby watercourse. Characteristics of wastewater from the rape seed processing should also be presented.

In relation to raw materials, details of the transferal process and storage of solid wastes or those greater than 15% from the shredder to the anaerobic digester feed tank are required Details of the functioning of hydraulic overflow protection system are required.

The currently proposed storage arrangements are not clear section F. details proposed separate storage for liquid and solids, but then states that it is not proposed to separate these currently, so what then is the proposed storage method?. It is not clear whether the plant works under pressure, this would be of importance if the plant was to malfunction.

The proposals for treatment of wastewater on site are not clear, section 6.1.3. Water, refers to a septic tank system for the office, yet no percolation tests results are presented, then in section 4.5 reference is made to an on site waste water treatment system, section 5.5 refers to a waste water treatment to EPA and GSI guidelines, whereas on the site layout map a 'biocycle' plant is shown.

Details, specifications and population equivalent of the wastewater plant which is proposed should be presented along with details of projected inputs to show that the treatment plant is capable of dealing with the volume of wastewater and treating it to provide a good quality effluent. Details of proposed discharges from the wastewater plant should also be given.

There appears to be a discrepancy over the number of digestate storage tanks between 2 and 4. IFI seek clarification on this issue.

Details of the proposed soakaway in relation to the criteria used for sizing the soakaway and projected volumes of water should be presented.

No mention is made within the EIS of the existing on land drains currently draining the forestry and their ability to carry run off away from the site and act as vectors for pollutants and mitigation measures to avoid this.

Details of the proposed wildlife pond are required and the proposed mechanism of water supply, if any to the pond.

Details on proposals for treatment of water from dust treatment and truck and wheel washing wastewater discharge are required. This wash water may contain chemical contaminants and so proper disposal of it is imperative.

Secure fencing should be constructed in such a way that it does not diminish access to the watercourse. IFI Officers will need access to the stream at all times.

Any external lighting in close proximity to the stream must be angled away from the stream and diffuse in nature to avoid light pollution, which can impinge on the migration of trout.

In the interests of sustainability the Shannon Regional Fisheries Board require that a 10m buffer zone must be in place on both banks of the stream, this zone must be free from development. This will allow for biodiversity within the river corridor. The riparian zone along the river should facilitate the planting of native tree species and shrubs to provide shading for fish and habitat for macro-invertebrates, birds and insect life.

Mitigation Measures within the EIS

Section 5. Summary of Mitigation Measures, lists a number of mitigation measures which are not mentioned elsewhere in the document and do not flow from risks identified in the earlier sections of the EIS.

No reference is made to water quality risks and mitigation measures during the construction phase. This is particularly relevant to the felling of 6 acres of forestry and stripping of topsoil and to proposals as to how this would be carried out to minimize impact of these activities on the stream in the middle of the site and what mitigation measures will be put in place.

The Environmental Management Plan states that a supply of sawdust will be on site to deal with any spill, sawdust is inadequate as a measure for the containment of oil pollution. Section 6.3.3. states that sawdust will be available near any areas of potential spillage. What about oil spill kits and other relevant measures?

IFI have concerns regarding potential impacts from spillages of dewatered sludge from vehicles. In order to combat this IFI requests that licensed contractors would transport the sludge to the site using vehicles that are sealed, roadworthy and that meet the relevant standards for sludge transport vehicles.

Section 5.4. states that the displaced top soil will be used for bunding within the site, IFI would have concerns over suspended solids pollution and the adequacy of this proposal, and contends that brown clay soils must not be used for this purpose. More suitable materials and appropriate construction methods should be used for bunding to ensure that it is effective, such as concrete. Individual tanks must be double skinned and bunded to 110% of capacity to allow for spills and any dilution. All tanks holding waste, digestate and oils on site must be bunded, especially rapeseed oil tanks. Bunding should drain to one area to allow for dewatering. All filling points, vents, overflow pipe outlets should be located within the bund or discharge into the bund. No discharge from the bund should be able to enter any watercourse, groundwater, or land.

IFI notes the intention to include a petrol interceptor and requires that this be a three stage silt trap and petrol interceptor adequately sized to allow for the proposed levels of vehicular traffic and run-off the surfaced parking and roadway areas. A maintenance

contract should be in place with a company who are specialists in this area to ensure adequate protection of the aquatic environment.

The accompanying site drawings show a bridge over the stream, but this is not detailed in the Environment Impact Assessment, is this the existing bridge? If not details must be provided and an assessment made.

It is important that the potential damage of pollutants and suspended solids can cause to the aquatic life is noted and measures are introduced to reduce risks to the aquatic environment. Increased levels of suspended solids will have negative effects on invertebrates (and an important source of food for trout). High levels of suspended solids can also cause fish habitat displacement, increased incidences of disease in fish, damage to the gills of fish and increased fish mortality rates and be detrimental to coarse fish spawning.

To conclude Inland Fisheries Ireland is seeking that the preceding items within the EIS be addressed before it can give full comment on this application. Once the relevant assessment has been carried out and the information has been provided to IFI a further submission may be made.

Please do not hesitate to contact me should you have any queries.

Yours Sincerely

Catherine E Kerins
Fisheries Environment Officer