Submission	
Submitter:	Ms. Lisa Maguire
Organisation Name:	Health Service Executive (HSE)
Submission Title:	Submission No 1
Submission Reference No.:	S001101
Submission Received:	25 October 2018
Application	
Applicant:	College Proteins Unlimited Company
Reg. No.:	P0037-04
See below for Submission details. Attachments are displayed on the following page(s).	

Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

Dublin North East
Environmental Health Service
Co. Clinic
Navan
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Ms. Grainne Oglesby,
Environmental Licensing Programme,
Office of Climate, Licensing & Resource Use,
Johnstown Castle Estate,
Blanchardstown Corporate Park,
Co. Wexford.

25th October 2018

Re: **P0037-04**

Applicant: **College Proteins**

Proposal: **Review of Industrial Emissions Licence at an animal rendering facility at College Rd, Nobber, Co. Meath.**

Dear Ms. Oglesby,

Please find enclosed the Environmental Health Service consultation report in relation to the above scoping document.

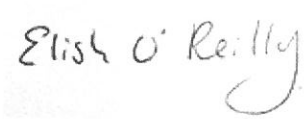
The following HSE Departments were made aware of the consultation request for the proposed development on 14/9/18:

- Emergency Planning – Brendan Lawlor
- Assistant National Director for Health Protection – Kevin Kelleher / Marie Woods
- CHO – Pat Bennett
- Estates – Jim Murphy

The Environmental Health Service response was based on an assessment of the documentation submitted to the EPA by College Proteins Ltd. All commitments to future actions including mitigation and further testing have been taken as read and all data results have been accepted as accurate.

If you have any queries regarding this report please contact me at Elish O'Reilly, Principal Environmental Health Officer, Co Clinic, Navan, Co. Meath.

Yours Sincerely,



Elish O'Reilly
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Ms. Elish O'Reilly
Principal Environmental Health Officer
Co. Clinic
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16th October 2018

Re: Review of Industrial Emissions Licence

Class and Nature of Activity: The principal activity is – *'The disposal or recycling of animal carcasses and animal waste with a treatment capacity exceeding 10 tonnes per day.'*

Other activities include – *'The production of organic chemicals, such as simple hydrocarbons (linear or cyclic, saturated or unsaturated, aliphatic or aromatic) (production means the production on an industrial scale by chemical or biological processing).'*

'Independently operated treatment of waste water (to which the Urban Waste Water Treatment Regulations 2001 do not apply) and discharged by an installation to which Part IV applies.'

'The recovery or disposal of waste in a facility, within the meaning of the Act of 1996, which facility is connected or associated with another activity specified in this Schedule in respect of which a licence or revised licence under Part IV is in force or in respect of which a licence under the said Part is or will be required.'

Applicant: College Proteins

Location of Facility: College Rd, Nobber, Co. Meath.

EPA Reference No: P0037-04

EHIS Ref No: 829

Dear Elish,

College Proteins is an existing facility that processes animal by-products at College Road, Nobber, Co. Meath. The raw materials are inputted into the existing plant and cooked and separated to produce tallow and meat and bone meal. The facility operates under an Industrial Emissions Licence issued by the EPA. This proposed licence review is to allow the company to extend its existing facility to include a proposed 25,000 tonnes biodiesel manufacturing facility. Planning permission for this development has already been obtained from Meath County Council. The following are observations made whilst reviewing the said application, the EIAR for the biodiesel manufacturing facility and related documents in conjunction with EPA guidance.

Description of project:

College Proteins proposal to extend its existing facility is described as a natural progression of the site processes. The raw material for the Biodiesel plant, tallow, is produced on site as a by-product of the existing process. Currently it is transported offsite for conversion into Biodiesel, both in Ireland and abroad. The proposed development will eliminate the requirement for this. The existing quantity of animal by products accepted for processing, (125,000 tonnes) will remain unchanged. It is stated the facility is designed to incorporate Best Available Techniques (BAT) and BAT assessment have been carried out as part of this licence review process. The existing facility operates an Environmental Management System that is certified to ISO 14001 standard. A monitoring programme implemented at the facility includes monitoring of waste water, discharges to surface water, ambient surface water, groundwater, soil, noise, emissions to atmosphere and analysis of the final treated effluent from the wastewater treatment plant.

Site Location:

The site is situated approximately 3km north of Nobber, Kingscourt is 11km to the north while Drumconrath lies 6km to the east. Land use in the surrounding area is almost exclusively grassland supporting dairy, beef and sheep agriculture of moderate intensity. Pockets of planted forestry are also present in the locality. The site lies within the River Dee Surface Water Catchment, with the River Dee itself located 1.7 -2.5km to the south and east. There is a small stream draining the site, which discharges into a tributary of the River Dee. Residential properties in the vicinity primarily comprise of one-off dwellings and small farms. The

nearest dwelling is c.180 metres to the east. The College Proteins site extends to approximately 19.24 hectares (47.5 acres). The proposed biodiesel manufacturing plant will be developed on a greenfield site adjacent to the existing facility. The site does not lie within any groundwater source protection area as mapped by the GSI or EPA.

Public Consultation:

I could not find any record of public consultation carried out by the applicant in relation to this proposed development. As stated in the EIAR *"the proposed development has the potential to create environmental nuisances within the facility and its environs."* There is a requirement on the developer to fully inform the public of their proposed application. They should identify, assess and evaluate any concerns or issues the public may have in relation to the development. They should also clearly link how public consultation influenced decision making within the EIA. The local population should experiences no reduction in the quality of life as a result of this development on either a permanent or temporary basis.

It must be acknowledged that the proposed development will have a positive effect on climate change by reducing greenhouse gas emissions. It is also good example of sustainable development, in line with circular economy policies which the Irish Government has signed up to.

Construction:

A project-specific Construction and Environmental Management Plan (CEMP) shall be maintained by the contractor during the construction phase of the proposed development. It is stated that as the proposed construction works are relatively small in nature and extent there will not be any significant impacts from this stage of the development.

A water bowser and a road sweeper will be used as required to control and minimise the effects of dust generation.

There is potential for construction works to generate significant levels of noise. It was stated that prediction of construction noise has been conducted as described in *'BS 5228: Part 1: 2009, Noise and Vibration Control on Construction and Open Sites,'* however I could not locate any figures in the EIAR. In the absence of specific noise limits the applicant has adopted the maximum permissible noise levels at the facade of dwellings during the construction period as recommended by the NRA. It is stated that various practices to control noise as outlined in

BS5228:1997, Noise and vibration control on open and construction sites: Part 1 – *Code of practice for basic information and procedures for noise and vibration control* shall be adopted during construction. Other mitigation measures detailed include establishing channels of communication between the contractor/developer, Local Authority and residents and appointing a site representative responsible for matters relating to noise. The construction period is estimated to last twelve months, therefore any noise impacts from the construction phase are considered to be short term impacts.

Dust:
It is stated that dust from the processing activities will be negligible. Dust may be created and dispersed by road traffic and traffic on site. In periods of dry weather the yard will be sprayed with water. Routine dust monitoring shall take place at the site boundaries to monitor dust levels.

Noise:
Annual noise surveys have been carried out on a yearly basis since 2010 as a condition of the IE licence. The most recent survey was carried out Dec 2017 during normal operation of the existing plant to assess the ambient noise levels. Daytime and night time measurements were taken at one site boundary location and at the nearest noise sensitive location to the plant. The primary sources of noise at the nearest noise sensitive location were traffic nearby and low-level site noise from the College Proteins facility.

The proposed Biodiesel plant will operate 24 hours per day, 7 days per week. The main source of noise from the operation of the biodiesel plant shall be the truck traffic delivering and receiving materials. Other noise sources will be pumps, air fans and pressure relief valves and the cogeneration unit. All outdoor sources of noise from equipment were identified and predicted in the EIAR.

It is stated in the EIAR "*noise emissions from the Biodiesel plant will not significantly affect the noise level outside of the site.*" All processing will be carried out inside the buildings which are totally enclosed, thus the emission of noise is dramatically reduced. It is stated that a combination of distance and the mitigation effect of the tank farm bunds will ensure that the noise levels from the outdoor sources will not exceed licensed limits. The EIAR does not quantify the reduction in dB that distance from a noise source has.

It is stated that no mitigation measures are required although the applicant does give a commitment that all plant, machinery, and fans etc. associated with the process will be designed to produce minimum noise and will be maintained to a high standard to ensure continued compliance with emission limit values. There will also be continued maintenance of berms acting as noise barriers to sections of the site. The applicant states *"The Company has not received any noise complaints from any third parties in the past number of years."* Noise shall continue to be monitored on an annual basis as per the licence conditions.

In addition to the proposed Biodiesel plant, it is also proposed to develop a permitted CHP Plant at the facility. The predicted noise levels for the combination of the existing rendering plant, the permitted CHP plant and the proposed Biodiesel plant have been calculated for the nearest noise sensitive receptors. The EIAR considered it appropriate *"to consider the predicted level with the measured night-time L_{A90} values as these values reflect the steady background noise level of continuously running plant"*, however I could not locate this information in the EIAR. I am therefore unable to fully assess the significance of the cumulative impacts of noise on the nearest noise sensitive receptors.

The conclusion of the noise assessment is *"that the noise impact of the proposed Biodiesel plant combined with the permitted CHP development and the existing plant will remain within the licensed limits".* It is this department's opinion that adherence to specified noise limit values does not always protect sensitive receptors from noise nuisance. The significance of the predicted change in the noise environment should be fully assessed as part of the EIA process.

Surface Water:

All rainwater water gathered from roofs, roads and concrete hardstand around the process building will pass through a hydrocarbon interceptor and silt trap prior to discharge to the receiving surface water. The rainwater from the tank farm and the loading/unloading areas shall be gathered in bunds to be sampled and checked prior to discharge. There will be no direct connection to the surface water drainage system.

If any contamination levels are detected this water will be sent to the existing on-site wastewater treatment plant for treatment. All other surface water will be treated in the onsite waste water treatment plant prior to discharge. All liquid wastes will be stored either inside the main building, in dedicated containers, or in the tank farm.

Stormwater rates have been calculated in line with the Greater Dublin Drainage Strategy (SUDS). Attenuation measures such as a hydrobrake device shall be put in place at the outlet to ensure discharge rates will not exceed the pre-development greenfield runoff rates. Rainwater shall be harvested from roof runoff for activities such as washing of hardstanding areas, equipment and vehicles.

The River Dee is sampled for biological water quality at several locations upgradient and downgradient of Nobber. River water quality has remained relatively stable at each monitoring point during the period 2006 - 2016. College Proteins monitor surface water quality at several locations on a monthly basis.

Groundwater:

The bedrock aquifer beneath the site has been classified by the GSI as a locally important aquifer; being moderately productive in local zones. The site has a 'Low' vulnerability rating. The closest well is 400m to the north of the facility and 7 wells are within a 2k radius. A survey of local wells was carried out on 10th March 2016 by the applicant.

The applicant stated there is a very low risk of discharge to surface or groundwater during normal and routine operations. Numerous mitigation measures to prevent run off are outlined in the EIAR. All operating surfaces at the facility are of impermeable hardstand, storage tanks are fitted with high level alarms and continuous level monitoring is in place. All tanks are stored within bunded areas and integrity testing in pipelines and bunds is carried out. All chemical substances are stored in suitable containers, and appropriately bunded. There are documented procedures for dealing with spills which staff receive training in. Spill kits are maintained at the facility. The applicant states the facility has no history of any incidents reported to the EPA in relation to soil, ground or groundwater.

There is an increased water demand associated with the biodiesel facility, estimated as being 7 m3/d. This is proposed to be serviced by the on-site abstraction well. Current daily abstraction for the existing rendering facility is 65 m3. Calculations predict the sustainable yield of this well using the current pump is 268 m3/d. The EIAR states *"There shall be no significant increase to the zone of contribution and no impacts on groundwater yield."* The applicant states that they will monitor

groundwater levels to verify that the implemented mitigation measures are protecting the receiving environment.

Water used for drinking purposes is sterilised using an ultra-violet unit, and also passes through an iron filter and water softening unit. Treated water is sampled routinely to ensure it is fit for human consumption. It is recommended in the EIAR that future sampling includes a raw water sample to show whether the lack of coliforms is due to natural groundwater protection or treatment.

Waste:

The treatment plant provides treatment for 6 streams of waste water from processing, Biofilter, domestic, boilers/TEAP unit blowdowns, condensate and surface water runoff. The treatment of liquid wastes produces two products: final treated water and sludge.

The proposed technology is designed so that little or no process waste is generated and any by-products are purified and surplus material streams are recycled, e.g. waste water or excess methanol is purified and reused in the process. All waste material being sent offsite for recycling or disposal will be collected by a suitably permitted waste contractor and records maintained on site in compliance with the conditions of the EPA licence.

Proposed wastewater generated as part of the Biodiesel production process will be transferred to the WWTP. The EIAR states the capacity of the WWTP is adequate to accommodate the extra inflows. Effluent production from the existing facility is currently 70 m3/day. The maximum allowable volume to be emitted as stated in the IE licence is 100 m3 and at least 60 m3 of the maximum volume arising from the biodiesel facility shall be recycled on-site for use as washwater. Treated effluent discharged from the WWTP is stored in an overground, lined lagoon before being landspread in accordance with existing licence conditions. The client has stated that an adequate landbank is available for landspreading of any additional final treated effluent however I could not locate evidence of this in the EIAR. It is also stated by the applicant that the treated effluent lagoon is deemed to have adequate available capacity to store all additional treated effluent during the winter period when landspreading is not permitted.

Traffic:
A Traffic Impact Assessment has been prepared by Stephen Reid Consulting Traffic and Transportation. Based on a volume of 25,000 tonnes per annum for the new Biodiesel Plant, the development is expected to generate 20 car arrivals and 20 car departures per weekday and a net increase of 6 HGV arrivals and 6 HGV departures per day. The EIAR states, *"the overall impact of the development will be a small increase in local HGV traffic"* but that the existing road links and junctions have adequate capacity to cater for this.

Litter:
Litter procedures are in place to prevent litter nuisance arising at the facility or in the immediate area of the facility. Daily litter patrols of the overall site and the access roads are carried out, all debris is removed from the road network immediately and all delivery and collection vehicles entering and exiting the facility are covered.

Odour:
An Odour Impact Assessment was carried out by The Airshed, a specialist Environmental Consultancy. The predicted odour sources from the new biodiesel plant were identified. A dispersion model (ADMS 5.2) has been used to predict how emissions will be dispersed taking account of:

a) the source conditions (the flow rate and pollutant concentration) and
b) the release conditions (height of release, efflux velocity and temperature).

The model predicts the impacts of the release of odour on sensitive receptors adjacent to the proposed development. Predictions have been made at 15 fixed point receptor locations.

Results from the Odour Impact Assessment indicate the release of odour from the new biodiesel plant is likely to be of minor significance. This is due to the process being totally enclosed and all ventilation gases being cleaned in a scrubber prior to being released to the atmosphere. The mitigation measures proposed by the equipment supplier are predicted to be suitable to prevent odour nuisance arising from the biodiesel facility.

The cumulative odour emissions arising from the operation of the existing rendering facility along with the permitted CHP plant were assessed in conjunction with the proposed Biodiesel facility. The assessment criteria for air quality impacts were based on Guidance Note AG4 from the EPA *'Air Dispersion Modelling from Industrial Instillations'.* In the absence of

guidance on process specific odour standards for industrial installations from the EPA, guidance from the English and Scottish EPA was used instead (as referenced in GN AG4). These are 'Technical Guidance Note *H4 Odour Management - How to comply with your permit'* Environment Agency 2011, & *'Odour Guidance 2010'* SEPA 2010.

The approach to odour regulation in the Odour Impact Assessment was based on quantitative techniques. i.e. that odour control at a specific process is the Best Available Technique (BAT) where the operator can demonstrate that the operations are unlikely to exceed 1.5 OUE/m3 as a predicted 1 hour average 98% of the time in any year. It should be noted the equivalent Scottish odour guidance for industrial processes is more stringent and suggests that odour at receptors should not exceed 1 OUE/m3 1 hour 98%ile where odours have generated a high level of complaint.

It is stated in the Odour Impact Assessment that odour emissions from College Proteins are predicted to remain less than 1.5 OUE/m3 (1 hour 98%ile). However olfactometry (odour units) are not sampled as part of the facilities air emissions monitoring programme and I could not locate any information on how the applicant proposes to verify that odour emissions from the facility will comply with this limit.

It is stated in the Odour Impact Assessment that *"the environment has limited capacity to receive further odour emissions"* based on the number of complaints from the public relating to odour from the existing instillation. Whilst it is acknowledged that odour complaints have dramatically reduced in recent years (61 in 2013, 51 in 2014, 31 in 2015, 23 in 2016) there were still 5 odour complaints received in 2017.There is an onus on the applicant to ensure there is no impact on the environment, cause of nuisance or loss of amenity arising from the operation of their facility. It is stated in the EIAR that there will not be any odour from the permitted CHP plant should it come into operation.

A detailed Odour Management Plan was prepared by Mariola Purgal Tumielewicz and has been implemented for the entire rendering facility in January 2017. The plan establishes the likely sources of odour arising from the facility and described the odour abatement systems and mitigation measures employed at all steps throughout the rendering process to treat and reduce odour on site. It is stated that College Proteins continues to use the Best Available Technology for the Rendering Industry to eliminate the possibility of odour emissions from the site. Standard operating procedures are established to ensure that the odour

control system continues to operate effectively during the service life of the system, under all normal and abnormal operating conditions. A specific procedure for dealing with odour complaints has been implemented.

Pest Control:
The applicants have implemented mitigation measures to control vermin and pests on the site. There will be no long term storage of waste on-site. The treatment processes are enclosed. The floor of the building will be cleaned and washed down at regular intervals. Fly nuisance will be minimised in summer months by spraying waste processing buildings with biodegradable insecticide if considered necessary.

The current pest control system comprises of eleven live capture traps strategically positioned around the facility. These traps are monitored by staff and checks for vermin nuisance are carried out during daily facility inspections by a designated person. If a vermin nuisance is detected, then a more intensive trapping program is undertaken. It is stated there is currently no vermin activity on-site. If vermin are found to be present an external contractor can be employed at the facility.

Complaints:
The applicant states there is a specific procedure for dealing with odour complaints. They also shall appoint a site representative responsible for matters relating to noise during construction works.

Closure & Decommissioning:
In the event of closure College Proteins will decommission, render safe or remove for disposal/recovery, all materials, waste, ground, plant and equipment that may result in environmental pollution. The Applicant will commission a validation report that demonstrates its successful implementation. This report will confirm that there is no continuing risk of environmental pollution to the environment from the site. It will be submitted to Meath County Council or the EPA within three months of execution of the plan and shall address the results of monitoring and testing; and the need for ongoing monitoring or investigations.

Conclusions:

1. The Environmental Health Service recommends that meaningful public consultation is carried out with regards to the proposed biodiesel facility. Any concerns the public may have in relation to the development must be addressed by the applicant and assessed in the EIA.

2. The Environmental Health Service recommends that all noise information obtained by the applicant relating to both construction and operational noise should be included in the EIAR. An assessment of the predicted noise impacts from construction works should be fully carried out. The predicted increase in noise exposure above the existing noise environment, at all noise sensitive locations should be quantified and assessed for both construction and operation of the facility.

3. In light of the increased water demand associated with the biodiesel facility, the applicant must amend their well registration details as required under SI No.261/2018 European Union (Water Policy) (Abstractions Registration) Regulations to take account of the increased water usage.

4. The applicant shall provide maps of all lands to be utilised for landspreading. All water course and buffer zones as outlined in SI No31/2014 European Communities (Good Agricultural Practice For Protection Of Waters) Regulations, as amended, shall be shown on the relevant land spreading maps. A site specific nutrient management plan shall be submitted for the applicant's lands detailing the amount of effluent waste that can be spread/acre/annum having regard to the permissible chemical and hydraulic loading of the soil.

5. The issue of nuisance odour arising from the facility remains a concern for this department. It is stated in the EIAR "*In light of our recent low odour complaints history, our odour abatement system is working satisfactorily*". In our opinion a satisfactory odour abatement system is where no odour complaints are received from members of the public. It is stated in the Odour Impact Assessment that dynamic olfactometry is probably the best technique for quantifying odours from this type of installation and the impacts of odour in the Odour Impact Assessment carried out for the facility

were assessed using this quantitative technique. In light of the fact that the applicant has no proposals to monitor olfactometry (odour units) as part of the facilities air emissions monitoring programme the applicant shall submit proposals to show how compliance with the limit outlined in the Odour Impact Assessment shall be achieved.

Lisa Maguire

Lisa Maguire
Environmental Health Officer