

Noeleen Keavey

From: Licensing Staff
Sent: 18 October 2018 15:18
To: Noeleen Keavey
Subject: FW: WO265-01
Attachments: Clashford Recovery Facilities Limited.pdf

Hi Noeleen,

Is this for you?

Thanks,
Niamh
Niamh Cox
Programme Officer
Environmental Licensing Programme
Office of Environmental Sustainability
EPA, PO Box 3000,
Johnstown Castle Estate,
County Wexford.
E-mail: n.cox@epa.ie
Tel: 053-9160600
Fax: 053-9160699

From: @hse.ie [mailto: @hse.ie]
Sent: 18 October 2018 15:03
To: Licensing Staff <licensing@epa.ie>
Subject: WO265-01

Hi,
Please find attached my submission report on the renewal of the waste licence for Clashford Recovery Facilities Limited, Naul, Co. Meath.

Kind Regards,
Lisa Maguire

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Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

Dublin North East
Environmental Health Service
Co. Clinic
Navan
Co. Meath

Phone: 046 9098754
E-Mail: @hse.ie

Ms. Grainne Oglesby,
Environmental Licensing Programme,
Office of Climate, Licensing & Resource Use,
Johnstown Castle Estate,
Blanchardstown Corporate Park,
Co. Wexford.

18th October 2018

Re: **W0265-01**

Applicant: **Clashford Recovery Facilities Limited**

Proposal: **Renewal of waste licence at a waste recovery facility at Naul
Townland, Naul, Co. Meath.**

Dear Ms. Oglesby,

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

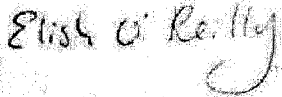
The following HSE Departments were made aware of the consultation request for the proposed development on 14/9/18:

- 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 Clashford Recovery Facilities 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
Principal Environmental Health Officer

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Feidhmeannacht na Seirbhíse Sláinte
Health Service Executive

Dublin North East
Environmental Health Service
Co. Clinic
Navan
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Phone: 046 9098754
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Ms. Elish O'Reilly
Principal Environmental Health Officer
Co. Clinic
Navan
Co. Meath

11th October 2018

Re: Renewal of waste licence

Class and Nature of Activity: The principal activity is Class R 5 of the Fourth Schedule of the Waste Management Act 1996, as amended 'recycling/reclamation of other inorganic materials, which includes soil cleaning resulting in recovery of the soil and recycling of inorganic construction materials'.

Other activities include Class R 13 of the Fourth Schedule 'Storage of waste pending any of the operations numbered R 1 to R 12 (excluding temporary storage (being preliminary storage according to the definition of 'collection' in section 5(1)), pending collection, on the site where the waste is produced)'. For inspection purposes only. Environmental Health Officer required to attend site.

Applicant: Clashford Recovery Facilities

Location of Facility: Naul Townland, Naul, Co. Meath.

EPA Reference No: W0265-01

EHIS Ref No: 825

Dear Elish,

Clashford Recovery Facilities Ltd intends to apply to the Environmental Protection Agency for a waste licence for the continued operation of its existing waste recovery facility on lands at Naul, Naul Townland, Co. Meath.

The following are observations made whilst reviewing the said application, the EIS and related documents in conjunction with EPA guidance.

Description of project:

The development consists of the continued phased restoration of a sand and gravel pit using imported inert soil and stone, and the recovery of inert construction and demolition waste. The total landholdings at Clashford, Naul are 33.4 ha. The proposed soil recovery facility comprises c. 24.2 ha of the total landholding. The lands have mostly been restored to agriculture and forestry after use under successive waste permits. Only phase 3 of the site remains to be backfilled using imported soil and stone whilst Phase 2 is currently undergoing final landscaping and cultivation to agricultural use.

It is proposed that c.40,000 to 70,000 cubic metres per annum of inert materials will be accepted to site to complete the restoration of the lands. It is estimated that the backfilling of the quarry will require three to five years with an additional year to complete the cultivation and final restoration of the lands.

It is proposed that c.20,000 tonnes per annum of inert construction and demolition waste is to be recovered at the facility. It is also proposed that this activity will be extended beyond the life of the backfill operations, subject to planning approval being granted by Meath Co.Council.

Site Location:

The site is located 300m north of the village of Naul. The town of Balbriggan is 7km to the east, Dublin is 25km to the south and Drogheda is 15 km to the north. The Delvin River flanks the southern boundary of the site, whilst an unnamed tributary stream of the Delvin River flanks the northern boundary of the site. The R108 runs along the western boundary of the quarry site. There are several nearby residences within 50-100m on the R108. In addition, there are several commercial enterprises on the R108, including the adjacent Kilsaran concrete plant immediately south of the site. The land-use in the area is agricultural, consisting of arable lands and pasture.

Public Consultation:

There are numerous established individual residences within a 500m radius of the site, particularly in the village of Naul. Several dwellings are located to the immediate west of the site on the R108, and across the Delvin River on the R122. I could find no reference of any public consultation carried out in the EIAR. The applicant repeatedly states that this is an existing operation and the completion of the restoration of the former quarry will only benefit the area. In my opinion the proposal to

continue the Waste Recovery Facility after the completion of restoration works does warrant public consultation.

Staff Facilities:

Clashford Recovery Facilities Ltd employs four people directly and two additional people on a temporary basis as required. It is stated that the existing site office will be replaced and new proposals will include the provision of a septic tank and percolation area. I could find no details of site percolation tests carried out in the EIAR (Note: it is mentioned that this is subject to a separate planning application to Meath County Council). The applicant does state the installation of the septic tank and percolation area will be in compliance with the EPA (2010), COP: *Wastewater Treatment and Disposal Systems Serving Single Houses (p.e. < 10)*.

There is conflicting information in the EIAR stating that GW1 (an existing borehole on site) will be the water supply source for the office, canteen and toilet facilities yet it also states that the potable water supply for the site office will be met by bottled water.

The estimated water usage on site is 5 to 10 m³ per day – this includes water used for dust suppression.

Noise:

The main source of noise and vibration will be from the movement of trucks on internal haul roads, the tipping of material, placing and grading the infill material, and from the processing plant. Additional noise sources in the area are from the R108 Regional Road and an adjacent concrete batching plant. The nearest noise sensitive locations are along the R108 Regional road to the west of the existing site. It is stated by the applicant that *"In general the future restoration works will be further removed from the nearest noise sensitive residences in the area."*

It is stated baseline noise monitoring survey was undertaken at the site to determine the existing noise levels. The noise monitoring survey was carried out in July 2014 at a number of noise sensitive locations and the results analysed to determine noise conditions. Cognisance was taken of the EPA's *'Guidance Note for Noise: Licence Applications, Surveys and Assessments in relation to Scheduled Activities (NG4)'*. The surveys were carried out in accordance with *'ISO 1996 Acoustics – Description and Measurement of Environmental Noise: Parts 1/2/3'*. The results outlined in the EIAR appear to show noise levels during the operation of the WRF, and not existing background levels without its operation. Thus I am

unable to assess the significant of the noise impact from the facility on the surrounding receptors.

Numerous noise reduction measures are outlined in the EIAR. Noise monitoring is carried out at nearby residences and site boundaries adjoining same. A further two noise monitoring locations have been agreed, bring the total number to 4. (These correspond with the dust monitoring locations). It is proposed to carryout noise monitoring on a bi-annual basis. The EIAR states "*Noise monitoring to date has shown that site activity at the existing facility are within accepted thresholds for this type of development*" and "*as a consequence the development will have no significant effects as regards noise levels in the area.*"

Dust:

The applicant outlines numerous mitigation measures employed to control dust on site. A water bowser shall be maintained on site for spraying haul roads and stockpiles of materials. Wet dust suppression systems will be installed at strategic points if required. Plant shall be located away from sensitive off-site locations and drop heights shall be kept to a minimum. All vehicles shall be required to pass through the wheel wash on exiting the site. A sprinkler system has been installed on the site access road. All the main site haulage routes within the site shall be maintained with a good temporary surface. A road sweeper is available for use on site and adjacent sections of the R108 at least on a weekly basis and/or if a spillage occurs onto the public roadway. Suitable vegetation is to be provided on restored areas at the earliest opportunity

Routine dust deposition monitoring is carried out on site using Bergerhoff Dust Gauges. The applicant has agreed to add an additional two monitoring locations bringing up to a total of 4 dust monitoring stations located around the site. The results of previous dust monitoring showed that the dust levels at the site boundary are within the recognised TA Luft dust deposition limit value of $350 \text{ mg/m}^2/\text{day}$. It is proposed to carryout dust monitoring for the activity on a bi-annual basis.

Surface Water:

A hydrogeological assessment was carried out by Hydro-Environmental Services to assess the impacts relating to the on-going phased restoration of the sand and gravel pit and to the processing of inert Construction and Demolition waste. Numerous mitigation measures have been outlined and if adhered to correctly by the applicant, should abate the risk of pollution of surface water.

All surface water runoff from the pit/waste recovery area of the site passes through two settlement lagoons prior to discharge to the tributary of the Delvin River at the north eastern boundary of the site. The lagoons

are cleaned periodically, and the settled silt is used as part of the site restoration. The applicant has put in place a programme of surface water monitoring (for suspended solids) so as to ensure the effectiveness of the settlement ponds in removing suspended solids. It is proposed to continue to monitor upstream and downstream of the discharge point in accordance with any monitoring programme agreed with the EPA. Surface water runoff from the current restoration area recharges to ground or runs off towards the unnamed tributary stream (T1).

2017 and 2018 laboratory analysis of surface water samples highlights a deterioration of surface water quality due to an increase in nitrogen based parameters and increased phosphate concentrations. Faecal and total coliforms are also elevated in all samples. This is when compared with surface water samples taken in 2014. The reasoning for the deterioration given in the EIAR is *"It is likely to be a reflection of the agricultural land uses in the catchment"* and also the Naul WWTP located in close proximity to the site. Analysis results did not detect any other significant levels of pollutants. It is also stated that prior to obtaining the samples in 2017 and 2018 the outlet from the settlement lagoon had not been discharging to the stream.

A surface water monitoring programme has been put in place to ensure that there is no impact on water quality. It is proposed that Tributary 1 and the Delvin River should be monitored frequently during the on-going site works in Phase 2 and future site works planned in Phase 3 to ensure that the water quality is not adversely affected by on-site activities. The actual frequency of sampling required was not stated in the EIAR.

Discharge monitoring will continue to be undertaken at the discharge monitoring point to Tributary 1 on a quarterly basis for the following parameters: BOD, COD, Suspended Solids, Total Petroleum Hydrocarbons and Fats, Oils and Grease. The drainage pipe provided along the northern extent of the restoration works in the Phase 2 area will ensure that Tributary 1 is protected from untreated surface water run-off during the backfilling of the restoration area. Surface water runoff from this area should be directed into the settlement lagoons before discharging to Tributary 1.

It is proposed to install perimeter drains where required around the restoration area to capture and divert runoff to the current closed system for treatment. Slurry spreading and organic fertiliser spreading on-site should adhere strictly to the Good Agricultural Regulations S.I. No. 31 of 2014. Appropriate buffer zones should be maintained from all watercourses as stipulated in the Regulations when applying fertiliser and other chemicals to the land.

Groundwater:

There are 5 water wells located within the site boundary, 2 are used for abstraction and 3 for monitoring purposes only. It is stated "*There are numerous houses in the area served by bored wells.*" but searches carried out by the applicant on the GSI database does not identify other private groundwater wells within 1km of the subject site. A Local Authority/Irish Water groundwater abstraction well is located 1.1k to the east of the Clashford site but it is stated in the hydrogeological assessment "*there is no risk posed to this Outer Protection Zone from the Clashford Waste Recovery Facility, as they are hydraulically disconnected on opposites side of the Delvin River.*"

Results of ground water analysis taken from samples in 2018 indicated groundwater quality issues exist. It is stated that elevated Ammoniacal Nitrogen in water samples may relate to ongoing landspreading and landscaping within the Clashford WRF site. Chloride concentrations exceed the IGV limit in some wells. Animal waste is a rich source of chloride and these concentration levels may indicate pollution related to slurry spreading. Another likely source of elevated nitrogen and chloride is land spreading of organic fertilizer to aid in the revegetation process at the site. Elevated total coliforms were present in one sample in 2018 but this was put down to the presence of clay particles in the sample. All other groundwater samples from 2018 indicate the absence of any microbial pathogens or hydrocarbons in local groundwater which is an improvement on the 2014 environment where both total and faecal coliforms were detected.

High iron and manganese concentrations appear to relate to natural background chemistry of the local bedrock. There may also be increased mineralisation due to local faulting mapped in the area of the Clashford WRF site. One well sampled in 2018 contained elevated levels of arsenic and barium which were significantly higher than the levels in other wells. and slightly exceeded the relevant guidelines for these parameters. The barium concentration could be attributed to dissolution of the mineral Barite ($BaSO_4$), which is controlled by sulphate reducing bacteria. No explanation was offered for the exceedance of arsenic.

Despite the existing groundwater quality issues which have been identified through sampling the assessment states: "*overall the available data (soils, leachate, groundwater and surface water data) indicates that there is no apparent significant indicator that identifies the existing Clashford site as a major source of groundwater contamination locally.*"

The only material to be imported onto the site should be inert soil and stone and inert construction and demolition waste therefore these should not be a source of possible contamination of surface and/or ground waters. It is stated in the EIAR that "*the importing of the inert fill will*

have a positive effect on the site in that the groundwater vulnerability rating will be lower."

Numerous mitigation measures are outlined in the EIAR to protect groundwater. All oil barrels and lubricants are stored on spill pallets/ spill trays. Spill kits are maintained and it is stated the company will put in place an emergency response procedure for hydrocarbon spills and appropriate training of site staff in its implementation. Diesel Plant on site will be refuelled using a mobile fuel bowser or double skinned road tanker. Refuelling will only take place on the hard standing area to be provided at the C&D Recovery area with drainage to an oil interceptor. It is also stated by the applicant that an effective Environmental Management Plan will manage the risks posed to groundwater.

It is proposed that groundwater monitoring will be carried out biannually. This is recommended to ensure that the restoration of the site is not impacting on the groundwater beneath the site and to establish on-going trends in the groundwater monitoring boreholes.

Waste:

The only waste to be accepted at the facility for recovery comprises of inert soils and stone, and inert construction and demolition waste. As such the material does not undergo any form of processing involving the use of chemicals or additives.

Materials to be recovered will only be accepted from approved contractors who are aware of the need for and who undertake strict segregation and sorting of waste prior to transporting it to the application site. All truck loads entering the site are given a preliminary visual inspection at the site office. If the material is not considered acceptable the haulier is refused entry and directed to an appropriate Waste Management Facility. Details of all truckloads entering the site are maintained in a logbook by the operator.

A second inspection shall take place after each load is tipped at the restoration infill area within the site, and/or a hardstanding area. Should a load of material indicate contamination of non inert material on inspection, the material is reloaded and the driver instructed to remove the load offsite to an approved facility; and/or the material will be stored in the quarantine area awaiting removal to an approved facility. A designated quarantine area for any inappropriate materials which may be found within loads accepted at the site is provided. Skips have been provided within the designated quarantine area for the temporary storage of any inappropriate materials discovered (e.g. glass, plastic, timber, steel, etc.). It is stated the materials are routinely removed by a licensed

waste disposal contractor to an appropriate disposal facility.

Litter:

The inert nature of the incoming materials is typically not litter-generating. Small volumes of litter may be inadvertently delivered to the site, mixed with soil and stones. These will be removed and stored in skips at the hardstanding area.

Pest Control:

Due to the inert nature of incoming materials, vermin control is not anticipated as being required. All food waste generated on site shall be stored correctly and disposed of in an approved facility.

Complaints:

I could not find any mention of a procedure to deal with complaints from members of the public should they arise. It must be noted that the Environmental Health Service have not received any complaints to date regarding the operation of this facility.

Closure & Decommissioning:

A separate Closure and Restoration/After Care Management Plan (CRAMP) has been prepared by the applicant. The lands are to be restored to agricultural/forestry use. It is anticipated that final restoration will be achieved within one year of completion of backfill operations.

All plant shall be safely removed for reuse or recycling and all wastes are removed off site at the time of closure for appropriate recovery or disposal. A final site inspection 6 months after site closure will be carried out to ensure that the final site restoration scheme implemented is functioning and progressing as required. It is stated by the applicant that *"there will be no on-going requirement for environmental monitoring after extraction operations have ceased."* It is also stated in the EIAR *"given the relatively short-term measures necessary to close the site satisfactorily, that there will be no environmental liabilities once closure, decommissioning and residuals management are completed."*

It is proposed that the C&D recovery of secondary aggregates will continue beyond the life of the restoration operations (subject to planning permission).

Conclusions:

1. The Environmental Health Service recommends that the public are informed of the proposal to continue the operation of the waste recovery facility and that meaningful public consultation is carried


out with regards to this proposal. Any concerns the public may have in relation to the continued operation of this development must be addressed by the applicant.

2. The Environmental Health Service recommends current and up-to-date baseline monitoring data is used to establish the existing noise environment. The only noise monitoring data provided in the EIAR was the results of noise monitoring carried out in 2014 when the facility was in operation. An assessment of the predicted noise impacts from the facility should include the predicted increase in noise exposure above the existing noise environment, at all noise sensitive locations. The Environmental Health Service considers that the methodology in BS4142 Method for Rating Industrial Noise Affecting Mixed Residential and Industrial Areas would be appropriate for predicting the impacts from noise of this proposal and assessing the likelihood of complaints and nuisance from noise impacts of the proposal.
3. The mapped groundwater vulnerability rating for the majority of the subject site is classified as 'High' by the GSI. An area along the southern boundary of the site is mapped as 'Extreme'. The proposal to install a septic tank and percolation area has the potential be a source of contamination to groundwater and the location of the proposed percolation area is of the utmost importance. The proposal to install a new septic tank and percolation area should be included in the EIA process.
4. The applicant must ensure all water provided to staff for drinking and food preparation purposes is potable and should meet the requirements of S.I.No. 122/2004-European Union (Drinking Water) Regulations 2014.
5. It is stated that occasionally a site operative will remove minor contaminants that may be contained within a load. Measures should be taken by the applicant to protect the health of their staff working in this manner. Suitable and adequate handwashing facilities must be provided on the site. Adequate handwashing facilities consist of an instantaneous supply of hot and cold running water, liquid soap and a suitable means of handdrying.

6. It is stated in the EIA 'materials are routinely removed by a licensed waste disposal contractor to an appropriate disposal facility.' In line with the principals of the waste hierarchy all onsite waste (including canteen and office waste) should be segregated for recycling off site. All waste storage facilities shall be covered to prevent litter blowing on-site.
7. If this proposed facility is not operated correctly there is potential that leachate from contaminated infill could lead to the contamination of groundwater. As mentioned in the EIA numerous residents in the vicinity depend on groundwater for their water supply. The waste acceptance procedure is of the utmost importance. This department would recommend the applicant strengthens their waste acceptance criteria. All materials imported onto the site shall be accounted for and fully traceable. Characterisation testing should be undertaken in advance by contractors forwarding significant volumes of soil to the application site. It is also recommended that site management visit each significant source site to inspect the nature of the development ongoing there in advance of the commencement of reception of material from that site. Routine sampling of waste accepted at the facility should be carried out and tested for key compliance indicators. This is to provide verification that only inert materials are being accepted and used onsite and to ensure compliance with the applicants own stated waste acceptance criteria.
8. All local wells appear to have been identified using the GSI wells database. This may not always be an accurate reflection of existing ground conditions. The Environmental Health Service recommends all local wells in the vicinity of the site are identified by means of a site visit and that their exact location is identified on a site map. These wells shall be included in the EIA process to ensure they are not negatively impacted by the development.
9. Results of water analysis have shown a slight deterioration in groundwater and surface water quality in recent years. It is proposed that sampling of groundwater is carried out bi-annually. The applicant recommends that surface water quality is monitored 'more frequently' but it does not state the proposed frequency of this sampling. In light of the water results provided in the EIA, the Environment Health Service would recommend that the frequency of sampling should be on a quarterly basis to establish trends in water quality. An assessment of current agricultural practices on the reinstated lands should also be carried out and a site specific nutrient management plan should be implemented to reduce

adverse impacts on water quality. The onus is on the applicant to ensure their development does not negatively impact on water quality.

10. The Environmental Health Service recommends that a formal complaints procedure is implemented to resolve any possible issues or community concerns in relation to traffic, dust, noise, water or nuisance complaints. In particular when investigating noise complaints the Environmental Health Service considers that the methodology in *BS4142 Method for Rating Industrial Noise Affecting Mixed Residential and Industrial Areas* would be appropriate when assessing nuisance from noise impact of the operation. It is this department's opinion that adherence to absolute noise limit values on site does not always protect sensitive receptors from noise nuisance.
11. The Environmental Health Department recommends that environmental monitoring is carried out for a minimum of two years after closure to ensure that there are no residual issues. A closure validation report should be completed and carried out by a competent person at this time. It is also recommended that the site is inspected by a competent engineer approximately one year post-closure to confirm that restoration conditions are acceptable in terms of settlement, drainage and overall landform.



Lisa Maguire

Environmental Health Officer

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