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environmental management for business

Administration
Environmental Licensing Programme,
Office of Climate, Licensing & Resource Use,
Environmental Protection Agency,
Headquarters P.O. Box 3000,
Johnstown Castle Estate,
County. Wexford

8th January 2013

RE: Application for the Review of Waste Licence Reg. No. W0140-04
Panda Waste Services Ltd., Rathdrinagh, Navan, Co. Meath

Dear Sir/Madam

On behalf of Panda Waste Services Ltd, I enclose one original and one hard copy of the clarification to the response to Agency's Notice issued on the 18th October 2012 under Article 16(a)(i)) of the Waste Management Licensing Regulations for the above referenced facility. I also enclose a CD-ROM disc containing 16 copies of the response in searchable pdf format, the content of which is a true copy of the responses.

Yours sincerely,

Jim O' Callaghan

0913806/JOC/KC
Encs.
c.c. Mr. David Naughton, Panda Waste Services Ltd.

Article 16(1)(a)(i) Further Information

Particulars and Evidence For

Nurendale Ltd

T/A PANDA WASTE SERVICES LTD

Waste Licence Review No. W0140-04

Article 16 Compliance

Prepared For: -

PANDA Waste Services Ltd.,
Rathdrinagh,
Beauparc,
Navan,
Co. Meath.

Prepared By: -

O' Callaghan Moran & Associates,
Granary House,
Rutland Street,
Cork.

8th January 2013

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Attachment A

1. ARTICLE 16 COMPLIANCE REQUIREMENTS

This is a clarification to the responses submitted on 12th December 2012 to Notice issued under Article 16(1)(a)(i) of the Waste Management Licensing Regulations, dated 18th October 2011, in relation to Application Register No.W0140-04 for the Materials Recovery Facility at Rathdrinagh, Beauparc, Navan, County Meath.

At the time the response was submitted Meath County Council had not responded to a request from Nurendale Ltd regarding the planning status of a revised stack height of the biomass furnace (16m) and the standby gas flare (7.74m), both of which Nurendale Ltd considers to be exempt development.

Meath County Council issued a response on the 7th January 2013 confirming that the revised stack heights are exempt development, subject to strict compliance with all conditions and limitations in the relevant Classes of the Planning and Development Regulations. A copy of the correspondence is in Attachment A.

2. NON TECHNICAL SUMMARY

Introduction

Nurendale Ltd., trading as Panda Waste Services (PANDA) is applying to the Environmental Protection Agency (Agency) for a review of the current Waste Licence (Reg. No. W0140-03) for its waste processing facility at Beauparc, Navan, County Meath. The objectives of the review are: -

- To extend the licence area to include a new building (Building 4), which will house a biological treatment system. The system, which is a combination of anaerobic digestion and composting, will treat organic waste to produce compost. Gases produced during the digestion stage will be used as a fuel to generate electricity and heat, which will be used at the facility and sold to electricity supply companies;

- To allow the processing of household and commercial waste to recover materials, for example paper and plastic, that can be used as a fuel, for example in cement manufacturing. These materials are called Refuse Derived Fuel (RDF);

- To amend Condition 1.5.3 of the current licence to allow the continuous operation of the biological treatment and RDF manufacturing systems;

- To amend Condition 8.6 to allow the continued operation of the construction and demolition waste processing plant in a dedicated open area.

Nature of the Facility

The facility only accepts non-hazardous wastes, which are processed to recover wastes that are suitable for recycling and to reduce the amount sent to landfill. At present there are two main buildings (Building 1 and Building 2) used for waste processing. A third building, Building 3, will accommodate the RDF system. It is proposed to construct a new building, Building 4, to accommodate the biological treatment system.

Classes of Activity

It is not proposed to change the type of waste activities, as defined in Third and Fourth Schedules of the Waste Management Acts 1996 – 2008, that are carried out. These are:-

Third Schedule – Waste Disposal Activities

Class 12

"Repackaging prior to submission to any activity referred to in the preceding paragraph of this Schedule".

Class 11

"Blending or mixture prior to submission to any activity referred to in a preceding paragraph of this Schedule".

Class 13

"Storage prior to submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where the waste concerned is produced".

Fourth Schedule – Waste Recovery Activities

Class 2

"Recycling or reclamation of organic substances which are not used as solvents, (including composting and other biological processes)".

Class 3

"Recycling or reclamation of metals and metal compounds".

Class 4

"Recycling or reclamation of other inorganic materials". (p)

Class 11

"Use of waste obtained from any activity referred to in a preceding paragraph of this Schedule".

Class 13

"Storage of waste intended for submission to any activity referred to in a preceding paragraph of this Schedule, other than temporary storage, pending collection, on the premises where such waste is produced".

Quantity and Nature of the Waste to be Recovered or Disposed

There will be no change to the types and quantities of waste that are authorised by the current Licence. These are shown in Table 6.1.

Table 3.1 Waste Types and Quantities

WASTE TYPE	MAXIMUM (TONNES PER ANNUM) (Note 1)
Household waste	35,000
Commercial & Industrial	75,000
Construction and Demolition	120,000
Compostable	20,000
TOTAL	**250,000**

Note 1: The quantities of the different categories referred to in this table may be amended with the agreement of the Agency provided that the total quantity of waste specified is not exceeded.

Raw and Ancillary Materials, Substances, Preparations used on the Site

Diesel, lubricating oil and hydraulic oil are used in the waste processing equipment. Electricity is used to power some of the processing equipment and also in the offices and yard lighting. Drinking water is taken from the County Council mains. Groundwater from an on-site well, which is stored in a tank, is used to damp down the yards during dry weather so as to prevent dust.

Plant, Methods, Processes and Operating Procedures

The biological treatment system includes a series of fully enclosed tanks, called digesters, in which the wastes will be initially treated. At the start of the process, the oxygen in the air in the digesters will be used up by the microbes in the waste to produce anaerobic (no oxygen) conditions.

The microbes will break down the waste and, in the process, produce a biogas, which can be used as a fuel to generate electricity. The biogas will be cleaned (scrubbed) to remove contamination and fed into two gas powered electricity generators. The electricity from the generators will be supplied to the national electricity grid. A stand-by gas flare will be provided and will be used to burn the gas when the generators are being serviced.

The digesters will reduce the amount of organic material in the wastes. The waste will then be moved to the composting area, where the wastes will be composted in fully enclosed containers called tunnels. Air will be supplied to the tunnels to ensure that oxygen levels are kept at the level needed to complete the composting.

When the composting process is complete, the material will pasteurised at a high temperature to ensure that all the microbes have been killed. This stage is required to meet the conditions set by the Department of Agriculture Fisheries and Marine for the treatment of wastes containing meat and fish.

Unprocessed household and commercial wastes contain water, in some cases up to 40% by weight, which affects the quality of the materials for use as fuel. The most favourable moisture content is around 15%, and therefore it is necessary to dry the wastes. It is proposed to dry the processed wastes in an air dryer in Building 3. The wastes will be placed inside a drying drum and the drum heated using a biomass fired furnace.

Information Related to paragraphs (a) to (g) of Section 40 (4) of the Waste Management Acts 1996 2003.

The actual and potential emissions associated with the new waste activities include noise, dust, odour, trade effluent and rainwater run-off will not breach any applicable legal standard or emission limit. Trade effluent, which includes water from washing down the floors of the buildings, is collected and stored in a tank before being taken to Meath Councy Council's Navan Sewage Treatment Plant.

The proposed site activities take into consideration the Best Available Technique (BAT) Guidance Note for the Waste Sector: Waste Transfer Activities published by the Agency and when carried out in accordance with the new Licence conditions, will not cause environmental pollution. It is not proposed to amend the current Management Team.

On 15th September 2009 Nurendale Ltd. was convicted at Navan District Court of an offence under the Waste Management Act for a breach of its previous Licence (W0140-02) relating to taking in more waste than approved under the licence. The current Licence (W0140-03), which was granted in March 2009, allows the acceptance of 250,000 tonnes per annum.

Emissions

Surface Water

Rainwater run-off from the existing concrete yards is collected in an underground tank and stored before being sent off-site for treatment. PANDA already has approval to change the drainage system to channel the water to a new reed bed, which will be installed in 2012. Rainwater from the roof of Building 4 will be collected in a tank and used at the site for spraying the yards to keep dust down. This tank is topped up with rainwater run-off collected in an underground storage tank. Rainfall on the new concrete yards will be collected and passed through an oil interceptor and into a soakaway.

Sanitary Wastewater

Sanitary and canteen wastewater is collected and treated in an on-site sewerage treatment plant. The treated wastewater goes to a percolation area. There will be no new sources of sanitary wastewater and the treatment plant has the capacity to cope with the estimated 15 new people that will work in Buildings 3 and 4.

Process Wastewater

Floor washings from Buildings 1 and 2 and water from the truck wash is collected in an underground tank and sent to the Council's Navan treatment plant. Additional wastewater will be produced in the biological treatment process. This will be reused in the process, but any surplus will be sent to the Navan treatment plant.

Groundwater

The only emissions to ground are the treated sanitary wastewater from the on-site treatment plant and rainwater run-off from the new concrete yards. The rainwater will pass through silt traps and an oil interceptor before it enters the soakaway.

Dust

The main source dust emissions with the potential to cause a nuisance are vehicle movements over the concrete yards in dry weather and the Construction and Demolition Waste processing area. The new waste activities are also sources of dust, but these will be carried out inside the buildings, which will effectively prevent dust causing a nuisance.

Odours

A number of the different household and commercial wastes processed at the facility contain materials (for example foodstuff) that are a source of strong odours. The biological treatment and the manufacture of RDF are also sources of malodours. All odorous wastes are handled inside the buildings and are not processed or stored in open areas.

The existing composting tunnels are provided with an odour control system, which draws air from the tunnels into what is called a biofilter, where the substances that form the odours are removed. Building 3 and Building 4 will be provided with separate odour management systems designed to ensure that odours from the buildings will not be a cause of nuisance.

Air

The electricity generators, gas flare, the biomass furnace, carbon filter and biofilter will be will be new emissions sources. The emissions will consist of combustion gases from the biogas and biomass fuels and air treatment.

Noise

The noise sources include all waste processing, equipment operating inside the buildings and truck and car movements.

Assessment of the Effects of the Emissions

Surface Water

The proposed changes will not result in any new emissions from the site to adjoining or nearby streams. Rainfall on the concrete yards can become contaminated with silt and small quantities of oil that may leak from vehicle oil sumps. The rainwater run-off from the yards will pass through silt traps and interceptors, which will reduce the contamination to acceptable levels, before it enters either the new reed beds, or soakaway.

Sanitary Wastewater

The existing on-site sanitary wastewater treatment plant has the capacity to handle has the capacity to cope with the estimated 15 new people that will work in Buildings 3 and 4.

Process Wastewater

The biological treatment plant will produce a wastewater. This will be reused in the process and any surplus will be collected and sent to the Navan sewage treatment plant.

Groundwater

There are no direct emissions to groundwater. Treated sanitary wastewater goes to a percolation area. The treatment plant is operating satisfactorily and has the capacity to handle the expected additional staff. Rainwater from the concrete yards will pass through silt traps and an oil interceptor before entering the on-site soakaway or reed beds. This will minimise the risk of groundwater contamination.

Dust

There are water mist sprays in Building 1 and 2 which effectively control dust emissions. The odour control systems that will be provided in Buildings 3 and 4 will also effectively control dust. The open yard areas are and will continue to be dampened down during dry weather. The dust monitoring carried out at the site has confirmed that current operations are not a source of dust nuisance.

Odours

The odour control system in Building 3 will involve the collection of air from inside the building and directing it to a carbon filter.

The control system in Building 4 will involve the collection of air inside the building and directing it to the biofilter. A computer model assessment of the odour impacts has confirmed that the emissions from Buildings 3 and 4 will not be a cause of odour nuisance.

Air

The emissions from the generators and the biomass furnace will comply with the conditions set in the Licence. A computer model assessment of the emissions has shown that they will not cause environmental pollution.

Noise

Noise monitoring at the facility has consistently shown noise emissions measured at the nearest noise sensitive locations below the emission limit specified in the existing licence.

Nuisances

Birds can be attracted to sites where there is available foodstuff. The wastes accepted at the site include some foodstuff. All wastes that have the potential to contain food stuff are and will be processed and stored inside the building. This has already been found to eliminate bird attraction.

Monitoring and Sampling Points

The construction on Building 4 means that one of the current noise monitoring and dust monitoring points along the eastern boundary will be lost. It is proposed to replace these with alternative monitoring points, which will be located further to the east.

Prevention and Recovery of Waste

The aim of the Licence Review is to increase PANDA's recycling rates and reduce the amounts of waste sent to landfill.

Off-site Treatment or Disposal of Solid or Liquid Wastes

The new waste activities will not result in any changes to the types or method of off-site disposal of solid and liquid wastes. The Refuse Derived Fuel will be sent to off-site facilities

for use as a fuel and this is classified as a recovery activity. The materials from the composting tunnels in Building 1 may be sent off-site for further treatment

Emergency Procedures to Prevent Unexpected Emissions

PANDA has prepared an Emergency Response Procedure for the facility, which sets out the actions to be taken in an emergency.

Closure, Restoration and Aftercare of the Site

The proposed changes to the current Licence will not affect the measures for the closure, remediation and aftercare of the facility.

Attachment A

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Mr. Jim O' Callaghan,
O' Callaghan Moran & Associates,
Rutland St,
Cork.

7th January 2013

Re: EPA Article 16 Request Nurendale Ltd

Dear Mr. O'Callaghan,

I refer to your letter dated 12th December 2012 and email correspondence received 18th December 2012 requesting the comments of the Planning Authority regarding the following:

- *Revised proposal- Biogas standby flare and stack;*
- *Revised proposal- Biomass furnace and stack;*

The Planning Authority wish to respond as follows:

- *Biogas standby Flare and stack*

Your letter dated 12th December 2012 sets out that upon receipt of the Council's letter dated 3rd December 2012 Odour Monitoring Ireland (OMI) were engaged to assess the gas flare and biomass furnace stack heights. OMI expressed the view that a gas flare height would typically be 8m. A revised gas flare with a stack height of 7.74 m is now proposed.

Your letter sets out your opinion that the above proposal constitutes exempted development as it complies with Class 21 (a) (iii) of the Planning and Development Regulations 2001 which states that '*development carried out by an industrial undertaker on land occupied and used by such undertaker for the carrying on and for the purposes of, any industrial process, or on land used as dock, harbour or quay for the purposes of any industrial undertaking-*
(iii) the installation or erection by way of addition or replacement of plant or machinery or structures of the nature of plant or machinery, subject to not materially altering the external appearance of the premises or the undertaking and the height not exceeding 15m .'

The Planning Authority concur with the opinion that the proposed flare constitutes exempted development, subject to strict compliance with all conditions and limitations as set out in Class 21 of the Planning and Development Regulations 2001-2012.

- *Biomass furnace and stack*

Your letter dated 31st October 2012 sets out your opinion that planning permission is required for the biomass furnace and stack. The Planning Authority concurred with this opinion in our letter of 3rd December 2012. Your letter of 12th December 2012 proposes a reduced stack height of 16m based on air dispersion modelling carried out by OMI. Your letter sets out the opinion that the above proposal constitutes exempted development as it complies with Class 56 (i) of the Planning and Development Regulations 2008 which states that: ' *the provision as part of a heating system for an industrial building or light industrial building or business premises of a biomass boiler including boiler house, and over ground fuel storage tank or*

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structure' subject to 10 no conditions and limitations including No 4 which states: '*the height of the flue mounted on a biomass unit shall not exceed 16m measured from ground level.*'

The Planning Authority concur with the opinion that the proposed furnace and stack constitutes exempted development, subject to strict compliance with all conditions and limitations as set out in Class 56 (i) of the Planning and Development Regulations 2008-2012.

Yours sincerely,

Michael Griffin,
Senior Executive Officer,
Planning and Transportation Department