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G160/AWB
Andrew Bryan
0115 977 4034
26th March 2014

Contaminated Land Officer
Landscape and Reclamation Team

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31 MAR 2014
P. P. & C.S

Mike Hankin
Development Planning
Trent Bridge House

Proposed Development – Proposed development of the Bilsthorpe Energy Centre (BEC) to manage unprocessed and pre-treated waste materials through the construction and operation of a Plasma Gasification Facility, Materials Recovery Facility and Energy Generation Infrastructure together with supporting infrastructure.
Location – Bilsthorpe Business Park, Off Eakring Road, Bilsthorpe
District – Newark & Sherwood
File No. – G160
Applicant – Peel Environmental
Officer Assigned – Andrew Bryan
Task – Landscape & Reclamation Comments on Development Proposal

CONTAMINATED LAND CONSIDERATIONS; A review of the submitted documentation has been undertaken.

PROPOSALS

The proposed Bilsthorpe Energy Centre (BEC) development would comprise the construction of an integrated Materials Recovery Facility (MRF) and a Gasification Facility (employing plasma gasification technology) and associated infrastructure and landscaping. It would be designed to manage circa 117,310 tonnes per annum of waste which would either arrive pre-treated (i.e. as a Solid Recovered Fuel (SRF) ready for gasification), or requiring pre-treatment within the MRF to recover recyclables and produce a SRF for gasification. The SRF would ultimately be mixed with limestone and metallurgical coke to form a *'feedstock'* for the Gasification Facility.
The proposed BEC development would have an installed electricity generating capacity of circa 13.6 Megawatts (MW) and it would generate electricity through the gasification of the *'feedstock'* and the combustion of the resulting *'syngas'* in a series of internal combustion engines (ICEs). In addition, the facility would also have the potential to provide circa 5.5MW of heat in the form of hot water recovered from the cooling systems associated with the ICEs.

Waste material that would be processed at the proposed BEC development would comprise a combination of residual non-hazardous commercial and industrial (C&I) waste and municipal solid waste (MSW) sourced from within Nottinghamshire, the City of Nottingham and surrounding authority areas.

The operation of the proposed BEC development would comply fully with relevant UK Government and European Union (EU) legislation and policies. The principal

processes to be carried out at the proposed BEC development would comprise the receipt, storage and treatment of non-hazardous waste, including the recovery of recyclables (within the MRF). The recyclable materials would be exported off-site to an appropriate re-processing facility with the resultant SRF gasified to produce a synthesis gas (referred to as *'syngas'*) which would be combusted on-site in a series of ICE's to generate electricity and potentially heat.

BACKGROUND

The proposed BEC development would be located within Bilsthorpe Business Park, which is situated on the site of the former Bilsthorpe Colliery.

Bilsthorpe Business Park covers an area of circa 24 hectares (ha) and is being progressively developed for general industrial and storage and distribution uses.

To date, several business units have been completed and NCC's Northern Area Highways Depot has been constructed on land to the immediate west of the application site. In addition, the Business Park also contains a mine gas utilisation plant which generates energy from the gas that is extracted from the former colliery.

GENERAL OBSERVATIONS

I have looked through the application with regard to contamination issues and assessment undertaken to determine the potential impact to human health and the wider environment from the proposed development.

The applicant has developed and submitted a comprehensive Environmental Statement, including the relevant reports which address; existing ground conditions, ground/surface water impact and emission modelling.

The applicant has produced a competent phase 1 site risk assessment report and comprehensive modelling report on potential contamination emissions from the proposed facility.

There are proven ground and potential air emission contamination issues to be addressed before this development would be able to be progressed.

With regard to the proven ground contamination issues the applicant has provided my comments already in section 9.6.12

"It is considered that the Phase 1 Site Investigation Report (see Appendix 9-1) provides sufficient information to enable the determination of this planning application. However, it is acknowledged that the planning permission (should it be granted) is likely to include conditions requiring further Phase 2 intrusive investigations prior to the commencement of construction. The results of the investigation would be used to update the current conceptual site model and risk assessment and ensure a more detailed assessment of potential risks can be made and any required mitigation measures can be designed and implemented."

The applicant will be required to undertake;

- Site Specific Intrusive Investigation & Gas Monitoring Works
- Revised Conceptual Site Model/Risk Assessment

- Revised building design; mitigating potential ground contaminant/gas impacts

Provided these are undertaken then would be no objection to the proposed development in relation to ground contamination issues.

There does remain an issue with potential fall-out from the emission stacks; however this issue would be determined by the EA under the site permitting regulations.

CONCLUSIONS

Having examined the supplied documentation we have no objections to the current application provided the required site specific intrusive investigation is undertaken, a revised site conceptual model a& site risk assessment is produced and if necessary revised building designs are supplied to mitigate potential ground, ground-water and ground gas contamination.

If you require clarification on any of the above points, please do not hesitate to contact me.

Andrew Bryan
Contaminated Land Officer
Landscape and Reclamation Team

Ruth Kinsey

Nottinghamshire County Council

From: Derek Hair
Sent: 07 August 2014 12:12
To: Mike Hankin
Cc: Cathy Gillespie
Subject: Bilsthorpe Energy Centre
Attachments: Reclamation Comments Template1.docx

Mike

The comments from the reclamation team

Nothing further on the reg 22 , but need to ensure further works identified in report carried out

Regards

Derek Hair B.Sc. C.Env. MIIRSM MIEnv.Sc.
Principal Project Engineer
Landscape and Reclamation
Nottinghamshire County Council

Please note call diverts to mobile when unanswered
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