THE TOWN AND COUNTRY PLANNING
(ENVIRONMENTAL IMPACT ASSESSMENT)
(ENGLAND AND WALES) REGULATION 1999

PROPOSED ANAEROBIC DIGESTION PLANT TO REPLACE BIO-DIESEL PLANT IN ENERGY RESOURCE CENTRE, AND HEIGHTENED CHIMNEY (39M)

LAND ADJOINING FACTORY OFF FELTHOUSE LANE, CHEDDLETON

NON-TECHNICAL SUMMARY

FOR

JOHN POINTON AND SONS LIMITED

OUR REF: 09/2796/C/W

APRIL 2010

the GRAHAM BOLTON PLANNING partnership limited

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Prepared By:		G J Bolton Director
Checked By:		Fiona B Child

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Introduction

1. John Pointon and Sons Limited are proposing to develop an anaerobic digestion facility at their rendering plant site off Felthouse Lane, Cheddleton.

2. Prior consultation concerning the proposed development has been undertaken with the Local Planning Authority. No formal pre-application submission of a draft EIA application or request for scoping was submitted for this Environmental Impact Assessment application in the light of the context of the scheme as an inherent part of the Energy Resource Centre proposals for the wider site which have been approved by Staffordshire Moorlands District Council subject to completion of a Section 106 Agreement. The Energy Resource Centre (ERC) and Community Recreational Facility (CRF) is a comprehensive scheme for two parts of the Company's site off Felthouse Lane, Cheddleton, which was considered by the Local Planning Authority, Staffordshire Moorlands District Council, in January 2009.

3. The proposed development is for an Anaerobic Digestion plant with two Combined Heat and Power engines, and associated plant, equipment and reception building, and a heightened chimney (39m) for the emissions from tallow fuelled electricity generating engines which forms part of the previously approved Energy Resource Centre. The AD plant is proposed as a replacement for the previously proposed bio-diesel production facility which formed part of the ERC and which will not now be built.

What is this document?

4. This Non-Technical Summary provides a brief synopsis of the proposed development and changes proposed to the ERC/CRF submission. This document is a summary only – the full assessment of the proposed development is given in the Environmental Statement (ES). The ES describes the processes involved within the scheme, and identifies and describes the significant environmental effects which may be caused by

the development. Where potential adverse impacts are identified mitigation measures are proposed, and these are detailed in full in the ES.

Where can I see or obtain the full documents?

5. Copies of the full Environmental Statement: Addendum and Revision together with the planning application have been lodged with Head of Planning, Staffordshire Moorlands District Council, Moorland House, Stockwell Street, Leek, Staffordshire, ST13 6HQ, where they can be inspected.

6. Copies of the full ES together with the NTS and Planning Statement are also available on CD at a cost of £5 and printed copies at a price of £100. CD copies or printed copies can be obtained by writing to The Graham Bolton Planning Partnership Limited at Onward Buildings, 207 Deansgate, Manchester M3 3NW; a cheque, made payable to Graham Bolton Planning, should be enclosed with the request.

7. The application will be advertised by the Local Planning Authority. The advertisement will specify the date by which representations in response to the Environmental Impact Assessment application should be made and these should be addressed to:

Head of Planning,
Staffordshire Moorlands District Council,
Moorland House
Stockwell Street
Leek
Staffordshire
ST13 6HQ

The Scope of the Environmental Impact Assessment

8. The Environmental Statement addresses each of the matters listed in Part II of Schedule 4 to the EIA Regulations. These are:

- A description of the development comprising information on the site, design and size of the development.

- A description of the measures envisaged to avoid, reduce and, if possible, remedy significant adverse effects.
- The data required to identify and assess the main effects which the development is likely to have on the environment.
- An outline of the main alternatives studied by the applicant and indication of the main reasons for the choice, taking into account the environmental effects.
- A non-technical summary of the information provided under the foregoing four items.

9. The precise list of matters to be considered will vary from project to project having regard to the nature of the proposed development, the characteristics of the location and what may be impacted upon. The potential range of issues referred to include population, fauna, flora, soil, water, air, climatic factors, material assets including the architectural and archaeological heritage, landscape and the inter-relationships between these factors.

10. An informal scoping exercise was undertaken in consultation with the Local Planning Authority, to identify those matters which should be the subject of Environmental Impact Assessment. In the context of the ERC/CRF scheme, which the current proposal is essentially an amendment of, the following were agreed to be the matters requiring Environmental Impact Assessment:

- Transport Impact
- Impact upon the landscape
- Noise impacts
- Review of air quality, dispersion and odour impact

11. Consequently, the following assessments form part of the Environmental Statement:

- Landscape Impact and Visual Assessment, prepared by The Appleton Group, Landscape Architects

- Transport Statement Addendum prepared by Singleton Clamp and Partners, Consulting Engineers and Transportation Planners
- Report on impact upon Air Quality, Air Dispersal Modelling and Odour, prepared The Airshed
- Addendum Noise Assessment Report prepared by WSP Environmental UK
- Planning Statement, including review of Development Plan policies, prepared by The Graham Bolton Planning Partnership

12. The Environmental Statement accompanies the submitted planning application for:

"Development of an anaerobic digestion facility in place of a bio-diesel production plant included in planning application ref no 08/01715/F (for and Energy Resource Centre), including a 39m chimney for the electricity generating engines in place of the 30m chimney previously proposed."

Context

13. The context of this EIA application and assessment is a proposal by John Pointon and Sons Limited to develop an Energy Resource Centre (ERC) and Community Recreational Facility (CRF) proposal under planning application ref: 08/01715/FUL; this is for a site within the ownership of the Company to the east of and adjoining the existing factory site off Felthouse Lane, Cheddleton. That scheme, which has been approved by the Local Planning Authority subject to finalising a Section 106 Agreement, included a bio-diesel production facility; this element of that scheme will not now proceed and the AD plant is proposed in substitution and will occupy the same part of the ERC site previously proposed for the bio-diesel facility.

The Site

14. The development land for the proposed ERC extends to approximately 4.4 hectares – it adjoins green fields separated by a field boundary consisting of intermittent trees, which was formerly in agricultural use. It is situated immediately adjoining the eastern end of the main factory site off Felthouse Lane, Cheddleton, and immediately

to the north east of the factory's water treatment plant. This land slopes downwards south west to north east and excavation and terracing will be required to form suitable areas for the proposed development. The site of the proposed AD plant is within this area, on a middle terrace of three which will be formed, and extends to 0.7ha, and is accessed as proposed within the ERC/CRF scheme.

The Proposed Development

15. The Energy Resource Centre was to consist of a bio-diesel production unit, including pre-treatment plant, a renewable energy power generation unit with associated 30m high chimney, a Category 1 and 2 meal store with adjoining vehicle and plant maintenance workshops and a Category 3 meal and secure packaged food stores; in total the ERC development will extend to approximately 9000m^2. The current proposal substitutes the bio-diesel production facility with an Anaerobic Digestion plant.

16. The primary constituent elements of the Anaerobic Digestion plant the subject of the Planning Application and Environmental Impact Assessment are:

- Reception and pre-processing building, in which extraneous material will be extracted; this building will be kept under negative pressure as potential odours will need to be extracted and abated;
- Two anaerobic digestion tanks of 20.3m in height;
- A storage buffer tank;
- A spherical gas storage tank;
- Two CHP electricity generating engines;
- An emission stack, 23.2m in height, and containing two flues to disperse the exhaust from the CHP/electricity generating engines and a stand-by flare short stack;
- A bio-filter, to abate odours extracted from the reception and pre-treatment building;
- Electricity sub-station;

- Various items of plant including heat exchanges;
- And, as part of the application, but not part of the AD plant, the revised proposal for the chimney to the tallow fuelled electricity generating engines at 39m in height

17. The proposed heightened chimney, for the tallow fuelled electricity generating engines which forms part of the ERC scheme, is on the upper terrace and in the same position as previously proposed in the approved ERC/CRF scheme.

18. The ERC scheme and incorporated AD plant development would be set in extensive landscaping, including considerable bunding which would help enclose and mitigate the visual effects of the large buildings proposed as part of the ERC and AD plant.

Reason for Development

19. The proposal arises out of the consideration to make better and more efficient use of the raw material and products produced by the Company and to reduce waste. The Company proposed in its ERC and CRF scheme to build an energy resource plant which, amongst other things, would utilise tallow to produce bio-diesel. The Company has now concluded that this element of the ERC scheme is not viable and will not be in the foreseeable future. Consequently, the bio-diesel element of the ERC will not be built and the site within the ERC used for an Anaerobic Digestion (AD) plant instead. The AD process is a more appropriate means of treating organic waste such as food waste than passing it through rendering, and represents Best Practical Environmental Option (see below). The Company presently receives and processes quantities of food waste.

Benefits of the Development

20. The benefits referred to are those which are the subject of this Environmental Statement and prior Environmental Impact Assessment.

21. The development proposed is aimed at making better use of the food waste material which the Company presently receives and processing it via anaerobic digestion. Anaerobic digestion is the process of capturing methane from the decomposition of organic materials. The process produces a bio-gas which can be used to generate heat and / or power or be used as a transport fuel.

22. The associated Combined Heat and Power engines will use the produced bio-gas as fuel generating heat and electricity, for use by the Company and also exporting any surplus electricity.

23. Making better use of the waste food by AD treatment represents Best Practical Environmental Option (BPEO) which moves up the "waste hierarchy" the handling of material, some of which is considered to be "waste". The intention is to build a plant of 60,000Te capacity, processing up to 50,000 Te by year 5 of operation, which will result in a considerable diversion of waste food from land-fill.

24. Anaerobic digestion is a well-proven renewable energy and waste management technology which is being promoted and accelerated by the Government as a technology with great potential to contribute to climate change and wider environmental objectives. This scheme at Pointon's is supported by a grant from Advantage West Midlands and WRAP.

Impacts of the Development

25. In the context of the approved ERC/CRF scheme and the knowledge that the proposed AD plant cannot be developed unless the ERC/CRF scheme proceeds, of which it is proposed as an integral element in substitution for the bio-diesel facility, an informal scoping exercise was undertaken with a representative of the Local Planning Authority. It was concluded that the changes effected by the proposed AD plant substitution and heightened chimney would require review of:

- Transport Impact
- Impact upon the landscape
- Noise impacts
- Review of air quality, dispersion and odour impact

26. A **Transport Assessment** has been carried out. Singleton Clamp and Partners, Consulting Engineers and Transportation Planners, have produced an Addendum to the Transport Assessment submitted with the ERC/CRF planning application. The Addendum directly addresses the proposal for the AD plant and the traffic consequences, and is more fully explained within the Environmental Statement.

27. The Addendum to the Transport Assessment concludes that when in full operation the AD plant will have a maximum traffic impact of just an additional 48 heavy vehicle movements per week. Consequently, the change from a bio-diesel production facility to an anaerobic digestion plant does not change the conclusions of the Traffic Statement and the proposed change can be approved from a highway and traffic point of view.

28. A **Noise Addendum Report** has been produced by WSP Environmental UK. This is an Addendum to the previously produced report from WSP Acoustics entitled, Proposed Recreational Facilities, Site Access Road and Energy Centre – Noise Assessment Report, August 2008.

29. The Addendum Noise Report is referred to in more detail in the ES but concludes that noise breakout, giving rise to noise levels at noise sensitive receptors, will approach or achieve the BS4142 situation as being *"a positive indication that complaints are unlikely"*. Noise associated with the envisaged additional heavy goods vehicle movements will not result in any significant impact. Noise from external plant is predicted to be only of "marginal significance" and significantly below the condition described in BS4142.

30. Overall the proposed development is predicted to give rise to minor or negligible noise impact and that noise need not be considered a determining factor in granting planning permission.

31. The Appleton Group prepared a **Landscape and Visual Impact Appraisal** in June 2007 in support of the ERC/CRF proposal. With the current proposal to substitute the bio-diesel production facility with an AD plant, The Appleton Group have undertaken a full review of the Landscape and Visual Impact Appraisal, including revisiting the site and appropriate viewpoints, and re-assessed the impact with the proposed AD plant and higher (39m) chimney for the tallow fuelled electricity generating engines. Their revised Landscape and Visual Impact Appraisal (rev. D) is submitted as a supporting document and is referred to in more detail within the accompanying Environmental Statement.

32. The LVIA concludes that the re-assessment of the amended ERC/CRF development, with the inclusion of the AD plant and higher chimney, will not result in any overall major adverse impact in landscape and visual amenity terms, subject to the mitigation proposals set out in the revised Landscape Masterplan, ref. 1521/02 rev. F.

33. It is further concluded that there will be overall beneficial impacts in landscape resource and character terms as a result of the mitigation works, leading to better screening of the existing plant with only minor adverse impacts to the amenity of the users of the footpath immediately to the east of the ERC.

34. An **Air Quality Impact Assessment**, prepared by Enstec, was submitted in support of the ERC/CRF scheme. The change in process (to an AD plant) with additional combined heat and power engines and a different and larger arrangement of buildings and external plant (digester and storage tanks) necessitated a review of the AQIA.

35. A new AQIA has been prepared by The Airshed, Specialist Environmental Consultancy for Air Quality, Odour and Environmental Noise. Their report and assessment is submitted as a supporting document and is referred to in more detail in the accompanying Environmental Statement.

36. The AQIA concludes that with the height of the tallow fuelled electricity generation engines' chimney being increased to 39m, and the proposed 23.2m stack for the AD plant's CHP engines, then the predicted increase in emissions is of marginal adverse significance or less at all receptors. It is further concluded that the proposed AD plant is unlikely to significantly affect vegetation or sensitive eco-systems.

37. In respect of odour, emissions from the bio-filter bed are predicted to exceed the Environment Agency's draft odour benchmark but would be insignificant if a stack venting the bio-filter is erected to a height of approximately 20m, though at a height of just 5m it would result in perceived odours below the EA benchmark.

38. There is no current proposal to erect a stack to vent emissions from the bio-filter bed. There is a general investigation under way in liaison with the Environmental Agency to potentially vent via chimneys all emissions from the covered bio-filter beds at the Pointon's site to improve dispersion. The conclusions of that review will be applied in respect of the bio-filter bed proposed as part of the AD plant scheme and application. It should be noted, however, that the odours emitted from a bio-filter bed are large in quantity but their character, which is of an earthy/woody nature, are not offensive.

39. The proposed development of the ERC will create up to 50 new jobs over a period of three years or so. The AD plant will maintain this level of new jobs.

40. The **Planning Statement** refers to the proposed development of the Energy Resource Park and the proposed AD plant and puts it in the context of existing planning policy. The application site of the proposed ERC development is within the Green Belt and thus very special circumstances must be demonstrated if it is to be permissible. This

has previously been established via the earlier planning application for the ERC/CRF scheme.

41. The Government's policy on renewal energy in PPS22 is noted, including the guidance that it is unnecessary to undertake a sequential test in reviewing alternative sites. The possibility of renewable energy developments within the Green Belt is also canvassed within the Government's guidance in PPS22.

42. The Planning Statement notes that the proposed AD plant and renewable energy electricity generating plant form an integral development together with the existing rendering plant and the benefits derived from the proposed new plants, which represents BPEO, would not be achieved if these developments were undertaken elsewhere; indeed, it is considered that they would not be undertaken elsewhere as the non-integrated nature of the proposals would likely to result in them being unviable or reducing significantly the benefits derived from the development at the proposed location. It should be noted that the rendering plant already receives a significant quantity of food waste which will be diverted to processing in the AD plant; energy from the bio-gas fuelled CHP engines will be used by the Company, enabling it to become more self-sufficient, with surplus electricity exported to the grid.

43. The Planning Statement also refers to Government policy in respect of climate change, cutting CO^2 emissions, generation of electricity using non-fossil fuels and reducing waste. In particular mention is made of the Government's policy and actions to promote and accelerate the uptake of anaerobic digestion. The Government's proposed Planning Policy Statement: Planning for a Low Carbon Future in a Changing Climate, which is currently the subject of consultation, includes draft policy LCF1.4 which proposes amongst other things that local planning authorities should secure greater integration of waste management with the provision of decentralised energy and district heating networks based on renewable energy from waste, surplus heat and biomass. As an existing and very substantial facility for dealing with "wastes",

including food waste, the proposed AD plant located at the Pointon's facility is ideally placed to respond to Government policy and objectives embodied in this draft PPS.

44. The Planning Statement concludes that there are no material reasons – whether resulting from potential environmental impacts of the scheme or in policy terms – why planning permission should not be granted, subject to a condition that it will proceed in the context and development of the ERC/CRF approved scheme. Indeed, it notes the strong policy presumptions in favour not least of which is the Core Strategy policy SD1 of Staffordshire Moorlands Local Development Framework which supports the provision of small and large scale renewable energy projects.

Conclusion

45. It has previously been concluded by the Local Planning Authority, based upon the submitted Environmental Statement with the ERC/CRF EIA application, that despite the size of the proposed ERC development, the specific siting and the nature of the proposed developments are such that the benefits outweigh the modest environmental impacts which are, in any event, either within accepted standards or can be mitigated further. The ERC development fully accords with Government policy for making best use of resources, for moving up the waste hierarchy the use of material which in some circumstances is considered to be "waste", which represents BPEO, and which will lead to a greater use of non-fossil and mineral fuels and reduction in carbon emissions resulting from the bio-diesel production units and renewable energy electricity generating plant.

46. The Environmental Impact Assessment of the current proposal for an AD plant and the proposed heightened chimney, effectively as an amendment to the approved ERC/CRF development, does not indicate any significant harmful effects. What minor impacts there may be can be appropriately mitigated. The environmental benefits of this AD scheme are also noticeable and particularly in the diversion of food waste from land – fill and also the capturing, via this process, of emitted methane for power generation which will help off-set fossil fuel power generations and reduce greenhouse gas emissions.