

Our Ref: NR/jg/552-01

26 November 2007

Andrew Toft
Eco 2
Trafford Plaza
Seymour Grove
Old Trafford
Manchester
M16 0OL

Dear Andrew

SLEAFORD RENEWABLE ENERGY PLANT

We refer to the consultation response dated 1 November 2007 from the Environment Agency (EA) in respect of the above application.

We note that the EA concur with the Flood Risk Assessment (FRA), in that the development falls within Flood Zone 1 and, as such, the material issue is surface water run-off from the site.

The EA also correctly identify that an attenuation lagoon (which is illustrated on the planning application drawings submitted to North Kesteven District Council) will regulate post-development run-off to the 1 in 100 year storm event (plus climate change, for which an allowance of 20% has been made on peak rainfall intensity) to a greenfield run-off rate equivalent to 3l/s/ha. We confirm that, during our discussions with Black Sluice IDB (as referenced in the FRA), the allowable rate of run-off (i.e. 3l/s/ha) was agreed with that organisation. Consequently, we maintain that the system proposed would afford the appropriate level of protection to third parties in the locality.

In order for the EA to be fully satisfied on this matter, and in accordance with the requirements of their letter, we confirm/supply the following:

- 1) An electronic copy (AutoCAD and PDF version) of planning application drawing number 15396/A1/200, which the EA should have been provided with by the Council;
- 2) Surface water drainage calculations (Micro Drainage output) for the developed site. We note that no such output should be required for the existing site as it is entirely undeveloped and the 3l/s/ha run-off rate has been selected to reflect this fact;

- 3) Estimates of the storage volume required are contained in (2) above and summarised below. The attenuation of this volume will be provided (as illustrated) by an on-line, dry lagoon, from which outflows will be regulated to the aforementioned rate, using a 'hydrobrake' or similar device. To summarise, in determining the storage volume, we have calculated the total site area to be 5.5ha; 2.1 ha of which would be impermeable surfacing comprising roofs and hard paved areas. We have applied the allowable run-off rate of 3l/s/ha which equates to a peak flow of approx 16.5l/s/ha for the total site area. Storage calculations for the 1 in 100 year storm, with an additional allowance of 20% to cater for climatic change, have subsequently been based on the 2.1 Ha of impermeable surfacing which will have a positive drainage system into the storage facility. The total storage volume required has been calculated as 1,344.7 cubic metres. It should be noted that the surface area of the dry lagoon illustrated on the attached planning drawings is 2,950m², thus to accommodate the necessary volume, the lagoon would need to be less than 0.5m deep (overall average depth);
- 4) We confirm that you (Eco 2 Lincs Ltd) will be the organisation responsible for maintaining the surface water drainage infrastructure, on completion of the development;
- 5) We confirm that the Black Sluice IDB was consulted by Aixs representatives, prior to submission and the Council has also formally consulted them on the application. We attach a copy of their response in respect of the latter. You will note that they support the use of attenuation and raise no objection to the application, subject to the imposition of a standard condition.

We trust that this letter (and its attachments) will assist you in responding to the EA/North Kesteven District Council and fully satisfy the former in terms of the information they have requested.

Yours sincerely

N D Roberts
Director