

W10230-01

Ann Bosley

From: Louis Duffy [Louis.Duffy@CorkCoCo.ie]
Sent: 10 July 2006 11:32
To: Licensing Staff
Cc: Jean Sayers; Nicholas Bond; Patricia Power
Subject: W0230-01
Attachments: EPA_Valeco.doc

Sub (2)

Further to your letter of 20th June, 2006 and my telephone conversation with Noleen Keaveney today wherein she stated that a submission by Email to this address today would be acceptable.

Cork County Council received a copy of the Environmental Impact Statement for proposed development at this site as part of a planning application.

The attached document sets out the Councils assessment of the Environmental Impact Statement.

Please accept that document as the councils submission. In addition, the Council would ask that the Environmental Protection Agency should consider all aspects of the development and the potential environmental issues associated with it. In particular the Council would ask that the impacts of materials taken from site for processing or disposal should be considered as should the impact of traffic to and from the site.

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Regards,
Louis

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Senior Staff Officer,
Planning Department,
Cork County Council,
Model Business Park.

6th of June 2006

ENVIRONMENT DEPARTMENT PLANNING REPORT

Planning Register No.: 06/6651

Applicant: Valeco Ltd.

Development: Construction of combined waste and power facility

Location: Ballard, Co. Cork.

Recommendation: DEFER

Report:

Valeco Ltd propose the construction of an anaerobic digester at Ballard, Araglin, Co. Cork to process 250,000 tonnes of non-hazardous organic waste originating in the Munster area. The applicant states that the two principal co-products from this process will be biogas, which will be used to generate power and heat, and a soil conditioner which will be sold to the agricultural and horticultural industries.

The application requires a full EIS which addresses all environmental matters. The EIS submitted by Valeco Ltd. as part of their current application to Cork County Council is deemed inadequate. As a result we recommend that a decision on this planning application be deferred subject to clarification of the following queries as a minimum.

1. Section 1. Page 2.: The applicant refers to 29,000 tonnes per annum of soil conditioner being produced from the proposed facility in addition to Biogas which is expected to generate 32MW of electrical power & provide heat for the production system. This appears to be the only reference in the application to the quantity of solid material which will be generated from the plant. Given that the plant is proposing to take in 60,000 t of dry waste (est. 90-92% DM), & 190,000 t of liquid waste (est. 5-25% DM), the anticipated generation of only 29,000 tonnes of dry solids would appear to be very much underestimated. (Incoming dry waste alone equates to est. 54,000t dry matter). Please clarify.
2. There is no reference any where in the proposal as to estimated composition of soil conditioner. Given the types of waste which are proposed to be processed on the site, (including MBM which is high in Nitrogen & Phosphorus), this soil conditioner is likely to have relatively high nutrient content. The Applicant has not referred to the suitability of this product for landspreading from the point of view of nutrient content, possible pathogen content, inclusion of MBM in the process, acceptability to farmers and horticultural market, requirement for the product, odour emission from farm storage and landspreading activities, etc. Please comment.
3. Applicant refers to Ringsend Waste Water Treatment Facility & states that the Valeco technology is based on this technological solution. It appears that this facility has had serious ongoing problems with odour emissions, is this likely to be repeated in the Valeco plant, or what technical solutions is the applicant proposing to deal with this issue?. The Ringsend facility has also had ongoing issues with the drier & pelletiser at the plant with a number of well publicised incidents of sludge cake being dispatched from the facility. What contingency proposals does the applicant have to deal with such problems arising at the Valeco facility.
4. List the feedstocks in the Ringsend Plant.
List the problems with respect to the Ringsend Plant.
What technical solutions have they proposed to resolve the problems given that the proposed technology in the Ballard Site is based on the Ringsend facility.
5. Are contingency plans in place or formulated in the event of a serious problem in the plant e.g. failure of the technology including a rogue load of waste disabling the digestors?.

6. The applicant refers to the facility bringing about a reduction in the quantum of organic nitrogen to be applied to the available landbank through land spreading. There is no elaboration on this elsewhere in the application. In fact the applicant proposes to process meat & bone meal (which is a high Nitrogen product). The nitrogen from this will be contained in the final soil conditioner which will go for landspreading thereby potentially increasing the quantum of organic Nitrogen to be landspread. EPA report on 'feasibility study for centralized anaerobic digestion for treatment of various wastes and wastewaters in sensitive areas' states clearly that AD does not reduce NPK content of feedstock to any great extent. Please clarify.
7. The Applicant states the facility will result in removal of substantial quantity of biosolids from landspreading. There is no evidence provided for this as EPA report on feasibility study for centralized anaerobic digestion states clearly that AD does not reduce NPK content of feedstock to any great extent. The applicant proposes that the solid fraction, (containing nutrients), will be sold as soil conditioner. The volume of material may be reduced, however the nutrient content is not changed significantly. Please clarify.
8. There are no proposals set out in relation to the decommissioning of the lagoons. Please set out your proposals in relation to the decommissioning of the lagoons.
9. Is the private residence on the site to be occupied? If so by whom? Will any business activity operate from this residence on the site?
10. Shall wastes to be managed on the site, have to be approved by the EPA prior to use on site?
11. How shall the liquid wastes be visually checked on arrival at site? How effective is visual checking of 25t loads of solid waste? What on-site laboratory testing will be done on suspect loads?
12. Temporary storage tanks referred to for storage of quarantined waste are not included in Table 2.1. Please clarify.
13. Process description refers to liquid waste being transferred into pre-cast underground tanks with an inner tank capacity of 600m³ and an outer ring of capacity 1,200m³. These are not described in Table 2.1. Details of tanks are not shown on drawings. Please clarify.
14. Storage: The Applicant proposes to store finished soil conditioner product & incoming raw materials within the same storage facility. This would appear to pose a serious risk of cross contamination and potential for mistakes to be made in dispatching product/waste from site.
15. There appears to be a discrepancy with respect to the storage location of the fats oils. Please clarify. How shall the fats and oils be transported from the reception building to the digester?
16. What is the function of the reception tanks in the process building (-refer to drawing 109035-A1450-1027? Should these tanks be placed in a process building where there is heat and pressure?
17. The reference T101 and T102 is used in a number of locations. Please clarify.
18. What safety process/facilities shall be put in place to ensure safety at high pressure/high temperatures as described as part of the TPH process?
19. Provide the location for the storage of oil to be used in the hot oil system.
20. What oil shall be used in the hot oil system? What are the maintenance requirements with respect to the hot oil system? How shall the spent oil be disposed of?
21. What precautions will be taken to ensure there is no risk of spontaneous combustion in stored waste/product within storage facility.
22. Traffic movement on site would not appear to be one way, it appears that trucks removing soil conditioner product from site will have to drive through process area & enter/exit via same path as incoming waste carriers. One way traffic system through site would appear more appropriate.
23. A monitoring system both manual and instrumental is essential to ensure stable reaction operations and to minimise operation difficulties. Provide proposals for monitoring system.
24. The Applicant has not demonstrated that the storage facility shall be of sufficient capacity to cater for product that must be stored at certain periods when landspreading is prohibited. Please clarify.
25. The Applicant refers to sewage sludge being directed from the raw materials tank to the dryer pelletiser, this would appear to be incorrect, It should go through the digestion process. Raw sewage sludge should not be stored in the storage hall with finished product. Please clarify.
26. The Applicant does not state how waste products from the biogas cleaning will be managed, stored & disposed of. Please clarify.
27. Clarify whether raw un-cleaned gas shall be flared in emergency or abnormal circumstances. Confirm the source of the biogas which will be flared.
28. How shall the ammonia be stripped from the air stream? Clarify the size of the biofilter as there appears to be a discrepancy in its size.
29. How is biofilter medium maintained, how often is it changed, how is spent medium disposed of.

30. Provide evidence that the scale and the make-up of the proposed biofilter is effective for the proposed activity.
31. The process treatment details procedures for the handling of ammonia and hydrogen sulphide. There are no details provided about the measures to control or eliminate volatile fatty acids, mercaptans and reduced sulphur compounds. Please clarify.
32. Provide details on how trucks shall be washed to ensure no pathogens or odour carryover.
33. The desludging details are vague. Please expand.
34. The Applicant does not refer to Pasteurisation/Hygienisation process to bring the temperature to 70°C for 1 hour. (Refer to the Environmental Protection Agency discussion paper "Anaerobic Digestion Benefits for Waste Management, Agriculture, Energy and the Environment" January 2005.
35. Provide details on how it is proposed to treat wastewater and manage effluent generated on site as a result of the construction phase.
36. The Applicant states that there shall be no material change to current land use practices within the study area and no mitigation measures are required, please clarify.
37. The Applicant states that hydrogen sulphide & ammonia are odourless gases, this is incorrect. Please clarify.
38. The Applicant assessed Muchnagh Stream as being Q 4-5. The EPA's score on the stream near the confluence with Araglin river in July 2003 was Q 3-4. Please clarify.
39. The Applicant does not refer to any potential impacts on human beings in vicinity of areas where soil conditioner product shall be landspread. Please elaborate.
40. Clarify the dates on which the following surveys were carried out:
 - a) Odour sampling survey
 - b) BTEX sampling
 - c) NO₂ and SO₂
 - d) Ammonia and Hydrogen Sulphide
 - e) Mercaptans, Reduced Sulphur Compounds and Volatile Fatty Acids.
 - f) Methane and CO₂
 - g) Dust Deposition
41. A scaled map showing and identifying all noise sensitive receptors within 500m and 1000m of the site boundary should be submitted. This map should also indicate the locations where all noise monitoring has been conducted and distance to the site boundary.
42. The submitted day and night time noise monitoring results for boundary monitoring location N2 and N4 appear to be incorrectly entered in Table 6.4 and do not correspond with the data submitted with the noise measurement reports in Appendix 6.3 of the submitted E.I.S.
These results should be clarified.
43. The noise survey start times for monitoring at Noise Sensitive Receptors given in Table 6.5 do not correspond with the corresponding times in Noise Graphs of Appendix 6.3 of submitted E.I.S.
These monitoring time intervals should be clarified.
44. All calculations undertaken to establish predicted noise levels in table 6.12 of the submitted E.I.S must be clearly shown and illustrated. A scaled map showing the distance of Noise sensitive receptors to site boundary should also be submitted.
45. A detailed noise management plan for the site during the construction phase should be submitted which should include details of proposed days and hours of operation, all noise mitigation measures being proposed and methods for implementation, details of who is responsible for the implementation of the plan as well as methods for evaluating the effectiveness of the plan and scope for revision if necessary.
46. A detailed assessment of all environmental impacts of transport to and from the facility, including noise assessment and proposals for mitigation at a representative sample of receptors along all proposed routes from the National Primary Road network. This assessment shall separately cover the construction phase and the operational phase of the project.
47. Identify on a map the location of each trial pit and borehole as detailed in Section 7 of the Report.
48. A detailed site investigation shall be carried out in accordance with BS 5930 (Code of Practice for Site Investigations). Heavy metal analysis shall be carried out on soil and subsoil samples taken from each trial pit within the areas identified as excavated or areas used for waste storage in the past. (Refer to Fig. 2.1)
49. Confirm the exact date when the water samples were taken.
50. Elaborate on the Exceedance of the Environment Quality Standard (EQS) for naphthalene at SW 104 and SW105 and for fluorine, phenalthrene and anthracene for SW104.
51. Give reasons for elevated levels of zinc at SW105, SW106 AND SW107.

52. Provide a more comprehensive nitrogen analysis i.e. nitrate and nitrite in the surface water locations.
 53. Repeat the total cyanide analysis having a detection limit which shall meet the EQS.
 54. Provide reasons for a BOD of 12mg/l in SW109.
 55. Provide a water hardness analysis for the samples taken.
 56. Are there any other surface watercourses crossing or springs arising within the area of the site for the proposed development other than those shown in Fig. 10.2?
 57. Provide up to date analysis for SW103.
 58. Provide up to date analysis for the 2 active drains on the proposed site as shown in Figure 10.2 for a full suite of analysis as set out in Section 8.
 59. Provide the onsite location for the surface water balancing tanks as set out in Table 8.3.2 as well as the location for the stormtech storage area. In addition provide a copy of drawing C003690-01 as it has not been provided.
 60. Submit the calculations used to determine the size of the surface water balancing tanks whose function is to prevent negative impacts on adjoining surface waters and rivers.
 61. Ponding will inevitably arise on the site during the construction phase given the size and nature of the site. Provision must be made in the planning stage for the silting and management of temporary settlement ponds to cater for this ponding to prevent discharge of silt laden waters to watercourses.
 62. No sampling results were provided from existing on-site lagoons. Were these lagoons sampled and if so please provide results. In the event that the lagoons were not sampled, arrange to have them sampled and submit results.
 63. Repeat the analysis for Chromium with an appropriate detection limit.
 64. What is the proposed quantity of water to be extracted from onsite bore-wells and what impact shall this have on groundwater locally and particularly local group water supply schemes.
 65. Establish why there are elevated levels as summarised in 9.1.1 at the time of sampling.
 66. Resample BH1S, BH3S and MW1 as a control.
 67. Submit analysis for MW2 as displayed on Figure 9.2.
 68. Clarify the potential impact on ground water level due to the construction of the facility.
 69. Identify the location where the biological monitoring was done on the Muchnagh Stream.
 70. Carry out a flood study for each river adjoining the site addressing as a minimum (a) to (e) listed below:
 - (a) Establish the total area of the river catchment above and below the site.
 - (b) Evaluate the extent and frequency of the flood events. (This will include the 100-year flood and flow for the stream). Calculations should be submitted to support levels and extents estimated.
 - (c) Establish the storage volumes/capacity of the flood plain.
 - (d) Investigate the impact of removing the storage capacity by filling this area.
 - (e) Clarify how it is intended to deal with the current drainage regime on site.
 71. Submit details as to how it is proposed to ensure that soiled water runoff from the site is prevented from entering adjacent watercourses.
 72. Provide details in relation to a Waste Management Plan for the site. The following items shall be included in the plan as a minimum:
 - a) Description of the project
 - b) Wastes arising including proposals for minimisation/reuse/recycling.
 - c) Estimated cost of waste management
 - d) Roles including training and responsibility for construction waste.
 - e) Record Keeping procedures
 - f) Waste Auditing Protocol
- In addition waste permit facility numbers and waste collection permit numbers shall be provided.
73. Submit details including timing for a lighting scheme for the site.
 74. The Applicant refers in a number of areas in the report to Anaerobic Digestion reducing pollution potential of animal slurries. It does reduce the BOD but has no impact on P or N content. EPA recognizes that eutrophication caused by excess P is the greatest threat to surface water quality in

Ireland. The plant proposes to handle 5,000 t of pig slurry and all other waste is industrial/municipal. Please comment on this.

DRAFT
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