

**ADRODDIAD PENNAETH
CYNLLUNIO,
CYFARWYDDIAETH ADFYWIO A
HAMDDEN**

**REPORT OF THE
HEAD OF PLANNING,
DIRECTORATE OF REGENERATION
AND LEISURE**

**AR GYFER PWYLLGOR CYNLLUNIO
CYNGOR SIR CAERFYRDDIN/**

**TO CARMARTHENSHIRE COUNTY
COUNCIL'S PLANNING COMMITTEE**

**AR 4 CHWEFROR 2016
ON 4 FEBRUARY 2016**

**I'W BENDERFYNU/
FOR DECISION**

ADDENDUM

***Ardal De/
Area South***



ADDENDUM – Area South

<i>Application Number</i>	S/29559
<i>Proposal & Location</i>	DEMOLITION OF EXISTING STRUCTURES ON SITE, RESTORATION AND RE-PROFILING THE SITE AND THE CONSTRUCTION OF A 2 - 3 MWE PHOTOVOLTAIC SOLAR ARRAY AND AN ENERGY RECOVERY CENTRE (COMPRISING AN ADVANCED CONVERSION TECHNOLOGY (ACT) 8 - 12 MWE PYROLYSIS PLANT AND AN ANAEROBIC DIGESTION 2 - 3 MWE FACILITY WITH AN INTEGRATED EDUCATION CENTRE) TOGETHER WITH ACCESS IMPROVEMENTS, LANDSCAPING AND ASSOCIATED WORKS AT NEW LODGE FARM, PONTARDULAI ROAD, CWMGWILI, LLANELLI, SA14 6PW

DETAILS:

CONSULTATIONS

Head of Public Protection Social Care & Housing – It is not considered that the proposed development will have a significant adverse impact on local air quality management. Further discussions in relation to environmental receptors have highlighted some deficiencies in respect of the justifications for some of the conclusions drawn by the applicants. Requests conditions relating to the control of noise, and hours of operation are imposed on any grant of planning permission.

Adjoining Local Members – County Councillor Alun Davies (Saron) has withdrawn his request for a site visit.

Neighbours/Public – Three further letter of objection and a petition containing 64 signatures. Grounds of objection are emissions and traffic which are covered in the report. A letter of objection has also been received from Nia Griffith MP who expresses concerns regarding viability, impact on Cross Hands Food Park, emissions and water pollution.

APPRAISAL

Following discussions with the Head of Public Protection the Air Quality and Atmospheric Emissions section of the report requires minor revision. The entire section is reproduced below for completeness with the amendments underlined.

Air Quality and Atmospheric Emissions

The vast majority of objectors have expressed concern about the emissions from the flue stack and the impact they will have on human health. TAN 21 states that air emissions are a material planning consideration and may represent a significant public concern.

Emissions to air will be primarily via the three gas engine flues and the pyrolyser flue stack. There will be emissions from the emergency flare but these have not been assessed. The applicants have submitted an assessment of the key pollutants – oxides of nitrogen (NO_x as NO_2), carbon monoxide which are the primary pollutants from Singas combustion. In addition, the emissions to air from the pyrolysers will be governed by the Industrial Emissions Directive which requires adherence to emission limits for the following pollutants – total dust (as PM_{10} and $\text{PM}_{2.5}$), gaseous and vaporous organic substances (expressed as total organic carbon), sulphur dioxide, hydrogen chloride, hydrogen fluoride, twelve trace metals (antimony, arsenic, cadmium, chromium, cobalt, copper, lead, manganese, mercury, nickel, thallium and vanadium) and dioxins and furans. The assessment also considers ammonia emissions associated with NO_x abatement.

The emission limit values set as mg/Nm^3 are as follows:

Total Dust – 10
Total Organic carbon – 10
Hydrogen Chloride – 10
Hydrogen Fluoride – 1
Sulphur Dioxide – 50
Oxides of Nitrogen – 200
Carbon Monoxide – 50
Group 1 Metals – 0.05
Group 2 Metals – 0.05
Group 3 Metals – 0.5
Dioxins and Furans – 1×10^{-7}

The mapped background NO_2 concentration in 2013 was $9.5 \mu\text{g}/\text{m}^3$ - 23.8% of the Annual Mean Air Quality Objective for the protection of human health (AMAQO) of $40 \mu\text{g}/\text{m}^3$. The mapped annual mean background concentrations of PM_{10} are $13.2 \mu\text{g}/\text{m}^3$ compared to the AMAQO of $40 \mu\text{g}/\text{m}^3$; the concentrations of $\text{PM}_{2.5}$ are $9.2 \mu\text{g}/\text{m}^3$ compared to the AMAQO of $25 \mu\text{g}/\text{m}^3$; the concentration of benzene (organic carbon) are $0.19 \mu\text{g}/\text{m}^3$ compared to the AMAQO of $5 \mu\text{g}/\text{m}^3$. The background concentration of carbon monoxide is $85 \mu\text{g}/\text{m}^3$ and sulphur dioxide is 1.7 as an annual mean. The AMAQO for carbon monoxide and sulphur dioxide are not directly comparable as they are set as an 8hr mean ($10\text{mg}/\text{m}^3$) and 24 hour mean ($125 \mu\text{g}/\text{m}^3$) respectively. The ambient level of hydrogen chloride is assessed as $0.22 \mu\text{g}/\text{m}^3$; the ambient level of hydrogen fluoride is assessed as $0.5 \mu\text{g}/\text{m}^3$; the baseline of dioxins and furans is assessed as $8 \text{fg}/\text{m}^3$.

Dust risks during the construction phase are primarily from demolition, earthworks, construction and track-out. These risks are assessed as medium to high with a potentially moderate adverse effect on sensitive receptors. However, dust risks can be adequately managed via good site practice and a Dust Management Plan.

The applicant has carried out computer modelling of the potential emissions, including particulates, carbon dioxide, heavy metals, dioxins and furans and assessed the impact of the development in relation to the baseline. The assessment concludes that the generation of NO_2 , carbon monoxide, sulphur dioxide, particulates, benzene, hydrogen chloride and hydrogen fluoride are well within AQO levels. In terms of the trace metals, the predictions indicate that the generation of all bar arsenic, nickel and chromium (VI) are not considered significant when assessed against metals guidance. Further assessment has indicated that the generation of nickel and arsenic will not be significant. However, further assessment of chromium VI levels in relation to typical emission concentrations for energy

from waste facilities has been undertaken in accordance with guidance. The applicants consider that this indicates maximum chromium (VI) levels of almost double the background level and 142% of the emissions limit value and claim that the actual levels will be significantly lower at the application site. This is a significant concern to the Local Authority as the applicants do not justify that statement. They have not adequately assessed the capability of the area to absorb the increase in levels and the potential for the pyrolysis process to reduce the emissions to below ELV. Predicted dioxin and furan generation is assessed to be just over 50% of the background concentration but there is no risk assessment of what that increase would mean or whether the area could absorb such a level without adverse effects. The applicants merely state that there are no assessment criteria. There is also no assessment of the impact of ammonia generated from the pyrolysis plant. There are therefore significant concerns regarding the potential impact of the facility on the health and wellbeing of the local population from emissions to air, particularly (but not exclusively) in relation to chromium (VI), ammonia, dioxins and furans. Again the Authority has not been able to discuss its concerns with NRW.

The proposal therefore based on the precautionary principle fails to comply with the rWFD and planning policy in relation to adverse impacts on health and wellbeing. It is therefore contrary to policies SP1, SP11, GP1, EP2 and WPP2 of the Carmarthenshire Local Development Plan.

In terms of habitat impact of air emissions the applicant has assessed the sensitive habitats in the area, the closest being Felin Fach Meadows SSSI to the north of the site. The assessment indicates that the predicted nitrogen deposition rate of 1.7% of the lower critical load is potentially significant at Felin Fach Meadows as is the nitrogen and sulphur acidification rate of 2.5% of the critical load. The increased nitrogen deposition rate increases the background level which is already above the critical load whilst the acidification rate would increase the background level to 34.7% of its critical load. The applicant dismisses these impacts as negligible and insignificant. Natural Resources Wales have indicated that they are satisfied that eutrophication will be minimal but the Council Planning Ecologist is not convinced that there will be insignificant impacts on the SSSI. The Planning Ecologist has also indicated that the impacts of air quality on Sites of Importance for Nature Conservation (SINC) and ancient woodland sites should have been assessed but no such assessment has been provided. Discussions in relation to this matter would have formed part of further discussions with NRW had the applicant not complained about the delay in determination of the application.

In such circumstances the precautionary principle must apply. The proposal is therefore contrary to policies SP1, SP11, SP14, GP1, EQ4 and WPP2 of the Carmarthenshire Local Development Plan.

RECOMMENDATION

The recommendation remains unchanged.