APPENDIX 6

RESPONSE FROM MEAS

Merseyside Environmental Advisory Service
Bryant House, Liverpool Road North
Merseyside L31 2PA
Director: Alan Jemmett, PhD, MBA

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MEMO

To: Andrew Plant
Organisation Halton Borough Council

From: Paul Slinn
Environmental Projects Team Leader

Your Ref 07/00068/ELC
File Ref HA06/001
W/P Ref C:\Work\Ineos Chlor\DC Memo HA06001 Supplementary (2).doc
Date 20 June 2007

Application to Construct and Operate an Energy from Waste Combined Heat and Power Generating Station with an Approximate Capacity of 360MW Thermal and up to 100MW of Electrical Power at Ineos Chlor Vinyls, South Parade, Runcorn, Cheshire

1. With reference to the above mentioned application, thank you for consulting us on the applicant's supplementary submission in response to our initial advice to Halton Borough Council contained in a memo dated 2 April 2007.

2. We welcome the generally thorough and constructive approach adopted by Ineos Chlor Ltd in addressing the issues we raised in our initial response. As a result of the way in which our concerns have been addressed, we are able to report that relatively few points of concern remain. Considering the scale of the waste management challenge facing Merseyside and the significant economic issues associated with these developments, Merseyside EAS is supportive in principle as the proposal could make a significant contribution to much needed waste treatment and energy recovery capacity. However, concerns remain to be addressed during the consent procedure. Whilst these are not significant enough to lead us to lodge an objection, we strongly encourage the applicant and consenting authorities to fully address the remaining outstanding matters within this memo prior to, or as conditions of, consent.

3. We advise that clarification has been provided to our satisfaction on the issues raised in paragraphs 2, 3, 5, 8, 12, 13, 14, 15, 16, 18, 19, 21, 22, 24, 25, 26, 27, 28 and 30 of our memo of 2 April and that we have no further comment to make on any of these issues at this time. Our comments on residual matters are detailed below.

4. *MEAS para 1; Ineos Chlor B2 1.1* - We welcome the commitment expressed by the applicant to working with Halton Borough Council to agree a schedule of draft planning conditions and we believe that it is now important for Halton to take forward discussions in a comprehensive and inclusive way to reach agreement. We note that the applicant has already prepared a draft set of conditions in association with its Section 36 application and we would be content for this to be used as the basis for initial discussions. Merseyside EAS would welcome the opportunity to comment on draft conditions, particularly those related to the following:

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4. *MEAS para 1; Ineos Chlor B2 1.1* - We welcome the commitment expressed by the applicant to working with Halton Borough Council to agree a schedule of draft planning conditions and we believe that it is now important for Halton to take forward discussions in a comprehensive and inclusive way to reach agreement. We note that the applicant has already prepared a draft set of conditions in association with its Section 36 application and we would be content for this to be used as the basis for initial discussions. Merseyside EAS would welcome the opportunity to comment on draft conditions, particularly those related to the following:

- Code of Construction Practice and Environmental Management Plan;
- Site Waste Management Plan and wider waste issues;
- Drainage;
- Ecological mitigation and landscaping;
- Contaminated land matters (if requested by Halton Borough Council).

5. *MEAS paras 4, 6 & ; Ineos Clor B2 4.1-4.4 & C 6.1-6.4 and 7.1-7.9* - It is understood that Greater Manchester provides the most advanced regional reference case on which to base initial consideration of RDF/SRF fuel specifications and sources and that Merseyside is not being excluded as a potential source of fuel. However, bringing forward the project prior to the completion of a reference case for Merseyside does involve some risk of incompatibility. We advise that Halton Council should consider that failure for Merseyside's MSW to meet the Ineos Chlor chosen RDF/SRF specification will result in a need for more new facilities in Merseyside and will lead to Merseyside (Halton in this case) becoming a significant long-term importer of SRF/RDF from elsewhere in the region and, potentially, more widely.

6. *MEAS para 9; Ineos Chlor C 9.1-9.7* - We note the additional information provided by the applicant in respect of choice of technology, though we are unconvinced by the rationale summarised in C 9.5 that Advanced Combustion Technologies (ACT) are not appropriate for this proposal. We would welcome an expanded response from the applicant on this point that provides additional detail on the evidence that has led to ACT solutions being discounted on this occasion, particularly in terms of the balance between economic and technical factors that led to the conclusion that was reached. We encourage the applicant to keep the potential application of ACT approaches under review with a view to potentially adding an ACT capability at a later date should circumstances allow. We advise that we accept the clarification provided in C 9.7 that the choice of technology does not materially affect the conclusions reached in the ES, as these were based on 'worst case' assumptions that have not been exceeded.

7. *MEAS para 10; Ineos Chlor C 10.2-10.2* – We note the clarification provided and will defer to Halton Borough Council for further consideration of transport issues.

8. *MEAS para 11; Ineos Chlor C 11.1-11.4* – We note the additional information concerning the renewable component of the RDF. While we are prepared to accept that the statement provided is likely to be broadly correct, we do not believe that the information provided is sufficient to completely justify the statement that the fuel will be 60% renewable. The applicant refers again to the Manchester MBT process in general but has not provided detail about the composition and specification for the RDF/SRF. We would like to see at least a more comprehensive set of references and details of a bench mark process with waste composition analysis of the MSW waste streams and proposed technology. We advise that the applicant should be requested to clarify this issue further by provided additional technical detail, particularly in respect of the reference case that has been derived for the RDF produced in Manchester.

9. *MEAS para 17; Ineos Chlor E 17.1-17.2* – We do not accept the statement that "*it is not considered appropriate for this project to be required to include measures that would screen industry generally from the Estuary*". No justification is offered for this statement, while our concern is not that this development should be required to screen "industry generally", but that it should incorporate proposals to screen itself from the Estuary as effectively as possible. While we accept that the scope for landscaping works on the proposed site is limited, we believe that more could be done to address this issue. Merseyside EAS would be pleased to participate in further discussions on this issue, if that would be helpful.

10. *MEAS para 20; Ineos Chlor E 20.1* – We welcome the clarification on the status of the various mitigation proposals put forward within the ES. However, we believe that the status of the measures identified as 'further mitigation' is ambiguous and needs to be clearly determined so that effective implementation planning can be ensured. Our preference would be for these measures to be secured on an equivalent basis to those to which Ineos Chlor has already indicated its commitment, as they have been proposed as part of the ES chapter authors' consideration of the issues. However, we recognise that there may be scope for discussion and we advise that Halton Borough Council seeks to resolve this in discussion with the applicant prior to determination.

11. *MEAS para 23; Ineos Chlor E 23.1-23.4* – We welcome the statement that a Great Crested Newt survey is underway. We advise that this should be made available for review prior to determination of the application.

12. *MEAS para 29; Ineos Chlor G29.1* – We note the response of the applicant and we will defer to Halton Borough Council's Environmental Health Department. However, Merseyside EAS is able to offer technical advice on contaminated land matters at Halton Borough Council's request.

13. *MEAS para 31 & 32; Ineos Chlor H 31.1 & I 32.1* – We note that the applicant has responded separately on these issues to Halton Borough Council and, as air quality matters are not part of our core expertise, we are content to defer to the Council for further consideration.

I would be pleased to discuss these matters further, if that would be helpful.

Paul Slinn
Environmental Projects Team Leader

Rec 2/3/07 S.C.

Connor, Sarah - Environment

From: Paul Slinn [Paul.Slinn@eas.sefton.gov.uk]
Sent: Monday, April 02, 2007 8:42 AM
To: Control, Dev
Subject: Ineos Chlor Vinyls, Ref 07/00068/ELC

DC Memo
HA06001.doc

FAO: Andrew Plant

Dear Andrew

Further to my e-mail of last Friday, I noticed that the memo with our comments concerning the Ineos Chlor energy from waste proposal had been sent without the paragraph cross-referencing at the foot of the first page having been completed. I have now updated this and am attaching the completed document. This does not affect the content. Please discard the earlier version.

Regards

Paul Slinn
Environmental Projects Team Leader
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Council does not
accept any responsibility in this regard."

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MEMO

To: Andrew Plant
Organisation Environmental & Regulatory Services Dept
Halton Borough Council

From: Paul Slinn
Environmental Projects Team Leader

Your Ref 07/00068/ELC
File Ref HA06/001
W/P Ref
Date 02 April 2007

Application to Construct and Operate an Energy from Waste Combined Heat and Power Generating Station with an Approximate Capacity of 360MW Thermal and up to 100MW of Electrical Power at Ineos Chlor Vinyls, South Parade, Runcorn, Cheshire

Thank you for consulting Merseyside EAS on the above Environmental Statement (ES), which encompasses the application referenced above. We have commented on issues that relate to our core expertise, but it is also important that the Council seeks the views of colleagues in other departments and also those of the Environment Agency on the acceptability of the ES and development proposal. Merseyside EAS was not consulted on the scoping of this environmental impact assessment, though we note that a scoping exercise did take place. We note that responsibility for determination of the application does not lie solely with Halton Borough Council and we are content for our comments to be brought to the attention of the Secretary of State for Trade and Industry where appropriate.

Merseyside EAS is generally supportive of proposals that seek to recover energy from waste efficiently, as they have the potential to increase sustainable waste management practices according to the waste hierarchy, while at the same time supporting increased energy generation from renewable sources as promoted by the energy hierarchy and reducing demand for primary fossil fuels. For those reasons, we would hope in due course to be able to support this proposal. However, as detailed below, we believe that the applicant has some further work to do in order to clearly demonstrate the sustainable nature of the project.

It is our general position that, while much of the information and analysis presented in the ES is appropriate, we feel that there are areas in which the Environmental Statement is not sufficiently definitive. Accordingly, we advise that there are a number of areas where it is necessary to require additional information prior to determination and that there are also a number of issues that will require attention through conditions of consent.

For ease of reference, our comments can be characterised as follows:

- Matters requiring clarification through additional information prior to determination can be found in paras 5, 6, 7, 8, 9, 10, 11, 12, 14, 15, 16, 17, 19, 21, 22, 23, 30 and 32.
- Matters that can be dealt with through condition can be found in paras 2, 20, 26 and 27.

We make the following comments:

General

1. Many of the predicted environmental impacts identified are capable of being managed and mitigated and the ES contains a range of appropriate proposals to do so. We advise that all proposed mitigation measures are secured through binding mechanisms such as consent conditions, section 106 agreements or by inclusion within an environmental management plan.

2. The ES contains welcome commitments to the proposed use of procedural mitigation in the form of a Code of Construction Practice (CoCP) linked to a Construction Environmental Management Plan (CEMP), particularly as a draft of the document is provided for review in the ES appendices. However, there is no apparent proposal for an ongoing Environmental Management Plan (EMP) and no indication of how the operation of the plant will interface with other management practices employed on the site by the operator. We advise that an EMP would be an appropriate vehicle for taking forward the implementation of key mitigation measures, and that it should be submitted to the Secretary of State for approval prior to the commencement of works. Merseyside EAS would be pleased to review and comment on the draft EMP prior to agreement. This can be secured through a suitably-worded planning condition.

3. The EMP should be time limited and should include details of the measures envisaged during construction to manage and mitigate the main environmental effects of the proposed development. Included within its scope should be measures related to construction and demolition waste management, pollution prevention, soil resource management, noise, vibration, air quality and the prevention of nuisance. The EMP should be compiled in a coherent and integrated document and should be accessible to the site manager(s), all contractors and sub-contractors working on site, forming a single point of reference for site environmental management. Arrangements for review should be put in place and relationships to wider site environmental management systems and procedures should be defined.

4. The justification for the project included a discussion of emerging waste and energy policy drivers and is set out in Chapter 3 of the ES. It places the project in the context of the favourable drivers for the adoption of energy from waste technology, combined heat and power schemes, and energy from renewable sources. This is a valid approach, especially with regard to the specific characteristics of this particular site, but could have been strengthened with a clearer discussion of the relationship to climate change, the waste and energy hierarchies and wider sustainability issues. We would expect that a project of this scale and type would have been accompanied by a sustainability appraisal but, in the absence of one, the proposal would benefit from a much more detailed discussion of these issues in the ES.

Description of the Project

5. It is accepted that the proposal is for a combined heat and power plant, and that the Ineos site has significant heat and power requirements in order to operate. However, the ES lacks detail about the precise inputs and emissions from the CHP, and whether this is proven to be the Best Available Technology. This lack of detail has bearing on the impacts of the proposed operational plant and its justification in terms of the energy hierarchy, waste strategy and climate change. We advise that the applicant be requested to provide clarification on this matter prior to determination.

6. Section 2.21 gives predicted quantities of RDF/SRF from the surrounding sub-regions. Section 2.22 discusses the possibility of burning of other non-hazardous wastes or biomass. There is no discussion of the quantities of other biomass, where it would be sourced from, what it would be or how it would get to site. **We advise that the applicant be requested to provide clarification on this matter prior to determination.**

7. Section 2.47 discusses waste products from the process. This is not particularly well quantified ranging from 150,000 and 275,000 tonnes per annum. The worst case scenario is that there would be 32.4% residue from an original 850,000tonnes input. This in itself is an impact for consideration. We would wish to see all bottom ash beneficially used, as this would represent a poor use of landfill void. However, the ES fails to discuss the potential market demand for the beneficial re-use of bottom ash and it is therefore unclear what proportion it may be possible to re-use compared to the expected landfill requirement. **We advise that the applicant be requested to provide clarification on this matter prior to determination.** The amount of residue produced should be an important factor informing the choice of process technology for the scheme and we would expect this to be reflected in a more detailed discussion in the context of BATNEEC as part of the examination of alternative options (see also paragraph 9 below).

8. With regard to fly ash and FGT residues, there is a proposal to dispose of this to Randle Island landfill, but there is no detail regarding the capacity and lifespan of the landfill, or the impacts of this disposal requirement once the landfill closes in terms of hazardous waste landfill availability in the North West region. **We advise that the applicant be requested to provide clarification on this matter prior to determination.**

9. We are concerned that the section on alternatives focuses on location and layout, failing to discuss technological options. Attention should be given to alternative technologies, for example plasma gasification, which is more efficient in terms of power generation and produces minimal quantities of residue. However, we also note that the detailed technology selection has not yet been made (para 2.30 of the ES) and we are concerned that this is not made more clear in the ES and its implications for the impact studies explained. It is our view that this uncertainty over the final form that the process will take, together with the failure to discuss the main technological alternatives, constitutes a significant weakness in the ES. **We advise that the applicant be requested to provide clarification on this matter prior to determination** as the choice of technology will have a material effect on the significance and nature of environmental impacts within the EIA.

10. Section 2.70 states that the majority of fuel would be received by rail (600,000 tonnes) and the rest by road (480,000 tonnes). Is this a realistic assumption given that some uncertainties remain about the technology to be used and the mix of SRF and biomass fuel to be employed? Some of the alternative sites are ruled out because of the lack of rail links. We encourage the scheme to promote sustainable transport options wherever possible within the context of the strategic transport infrastructure for waste, but we do not feel that the soundness of the ESs projections for fuel transport have been thoroughly demonstrated. **We advise that the applicant be requested to provide clarification on this matter prior to determination.**

Fuel

11. Section 3.16 states that RDF is likely to contain 60% biomass, but RDF is derived from municipal solid waste and, whilst this will contain organic matter, it is not biomass fuel and is likely to contain a significant quantity of plastics. However, the application fails to make clear what the precise specification and minimum requirement for the composition of the fuel will be and this therefore requires further elaboration. There needs to be clearer discussion within this section on the relationship between the waste and energy hierarchies, and a reasoned estimate should be provided of the proportion of the generated energy that can be designated as

arising from renewable sources, including the proposed co-firing with separately-sourced biomass fuels, for which little detail is given. **We advise that the applicant be requested to provide clarification on this matter prior to determination.**

Water Resources and Drainage

12. Section 2.53 discusses emissions to water and contaminants in the 'operational' water. There is no quantification of the contaminants in the various effluent streams, but significant quantities of effluent are likely to be discharged. **We advise that the applicant be requested to provide clarification on this matter prior to determination.**

13. Section 7.34 discusses the proposals for surface water management. Surface water drainage provision is currently inadequate on the site and this will be upgraded as part of the development. We commend the proposal to re-use surface water run-off, and would recommend that this is further enhanced by collection of roof run off. The current proposal is for roof run off to go to soakaway. It would be more beneficial if this was re-used. Also, should ground contamination be revealed, it may not be possible to use infiltration systems. However, in line with the provisions of Policy Planning Statement 25, *Development and Flood Risk*, Merseyside EAS supports the use of Sustainable Urban Drainage Systems (SUDS) techniques wherever they are appropriate.

14. Although it is stated that cooling waters will be discharged via existing pipes and outfalls into the Runcorn - Weston Canal and eventually the Mersey Estuary, there is no explanation or consideration of the likely temperature of the cooling waters on discharge. It will be important to know if the cooling water discharge will be at ambient temperature of the receiving water course, lower, or higher. Given the proximity of the Mersey Estuary SPA a matter such as this should have been considered and **we advise that the applicant be requested to provide clarification on this matter prior to determination.**

15. The ES acknowledges that the CHP plant will use large quantities of water. However no estimate is given for the actual quantity and rate of use and the implications for additional abstraction of water are not provided. Whilst this is primarily a matter for the Environment Agency through abstraction and discharge licensing and consent processes, **we advise that the applicant should be requested to clarify process water supply arrangements and quantities, both in absolute terms and as an additional proportion of existing abstraction licenses held by the applicant (if applicable), prior to determination.**

Ecology

16. The impact of the extent and proposed treatment of the contaminated land on the site has been considered only from a human health angle. The Contaminated Land Regulations identify specific ecological receptors that should be considered, including European nature conservation sites such as SPAs, SACs etc. This appears to be an omission. **We advise that the applicant be requested to provide clarification on this matter prior to determination**

17. Figure 2.1 shows the landscape proposals that are included within the scheme as 'built-in' mitigation. These proposals indicate that a visual planted screen will be created to the south of the facility only. The proposals form barely an acceptable minimum and do nothing to improving screening of industry from the Estuary. It is difficult to see how the proposals meet the advice contained in PPS9, particularly key principle (ii) and paragraph 14 where the advice states "Development proposals provide many opportunities for building-in beneficial biodiversity or geological features as part of good design. When considering proposals, local planning authorities should maximise such opportunities in and around developments, using planning

obligations where appropriate." We advise that the applicant should be asked to look again at the landscape proposals and enhance the biodiversity gains within this proposal.

18. We advise that the methodology used in assessing the impact on Ecology (Chapter 6 of the ES) is acceptable, although it should be noted that the applicant has taken a 'pick and mix' approach to acceptable methodologies and this can lead to selectivity of significance of impacts. This chapter summarises the issue of appropriate assessment under the Habitat Regulations with reference to the air quality assessment - that is considered in Chapter 10 *Air Quality*. The ecological significance (or not) of those identified air quality impacts is not dealt with sufficiently.

19. We have considered the question "is there enough information submitted to enable the screening of the proposal against the requirements of the Habitat Regulations, specifically regulations 48 & 49?" There is a discrepancy between this list of European sites in this chapter and those quoted in the Air Quality assessment (Appendix'6.5). Additional sites between 10 and 15km from the application site are considered in the Air Quality Assessment (Midland Mosses & Meres Phase 1 and 2 Ramsar sites). These should have been included in the Ecology chapter. From our review of the information, this aspect is the one of most concern. For example, no detail has been provided on the expected dispersion pattern of NOx, SOx and acid deposition and its relationship to prevailing wind characteristics. Also, the basis for the air quality assessment parameters used is unclear. Accordingly, we advise that without additional information the competent authorities would not be able to screen the proposal as required under the Habitat Regulations. Clearly therefore the applicant will need to provide this additional information to assist the competent authorities in discharging their statutory duties under the Habitats Regulations. This information should be provided prior to determination. Natural England should be consulted on the application and whether, in its view, there is a likelihood of significant effects.

20. A series of mitigation measures have been included in the ES and we advise that these should be subject to planning conditions as follows:

    - Paragraph 6.35 - no vegetation clearance between 01 Mar and 31 Aug in any year.
    - Paragraph 6.36 - reptile survey for submission and approval together with detailed method statement for translocation methodology and receptor site/timing etc to be agreed prior to any works commencing.
    - Paragraph 6.37 - CoCP- Appendix 2.3 paragraphs 1.30 - 1.31 are acceptable and should be subject to planning condition.
    - Paragraph 7.131 - proposals to consider ponds as SuDS - condition required for submission of detailed drainage proposals that include biodiversity enhancement and landscape mitigation.

21. Paragraph 6.45 - no details of the surveyor(s) qualifications or experience have been submitted. It would be premature to accept the extended phase 1 survey and species list until those details are submitted and are found to be acceptable. This goes to the heart of the quality of the data used in the assessment and we advise that this information be requested from the applicant prior to determination.

22. Paragraph 6.93 - does not highlight the Section 74 list of principal habitats and species that local planning authorities must take into account under the Countryside and Rights of Way Act. For example, has the phase 1 survey or desk study identified the presence of any of these principal habitats and species? We advise that the applicant be requested to provide clarification on this matter prior to determination.

23. Paragraph 6.144 - A hand-search of potential refugia for great-crested newts has been undertaken. This is an unreliable method of determining whether great-crested newts are

present on the site. There is a likelihood of a small remnant population (cf. the small population translocated from the other Ineos Chlor site that is reference in the ES). Hence, we advise that a great-crested newt survey is required prior to determination. This survey needs to be undertaken using the standard methodology and can take place between February and June depending on local climatic conditions.

24. Paragraph 6.166 - states that there is no requirement for a habitat regulations assessment as there is no likely significant effect on any of the sites. This does seem to be at odds with the statements in the Air Quality assessment where deposition will add to the current rates of deposition that already exceeds critical loads. On this basis, we advise that it is not possible to conclude that there is no likely significant effect on the information submitted and that the proposal does need to be screened in detail.

Construction and Demolition

25. The demolition of any remaining structures must take place in a manner that does not pose unacceptable risks to the environment or human health. The demolition methodology must also consider the potential for impacts on the nearby controlled waters and its ecology, which may be caused by demolition debris or solids transported by water. We advise that the applicant should review '*Pollution Prevention Guidance Note 6*', produced by the Environment Agency (web link http://publications.environment-agency.gov.uk/pdf/PMHO0203AUDJ-e-e.pdf?lang=_e), which provides specific information for use in construction and demolition projects, and incorporate this into the agreed method statements for the CoCP.

26. We advise that the applicant produce a suitable demolition methods statement, which must receive prior written approval before before any demolition works commence. The methods statement must be linked to the Site Waste Management Plan (see below), which will detail the types and quantities of waste likely to be encountered and methods of handling the material on-site, and also to the EMP, if appropriate. This can be secured through a suitably worded planning condition.

Waste Management

27. The proposed development may generate a significant quantity of waste, some of which may be non-hazardous, inert or possibly hazardous. We advise that the developer should prepare a Site Waste Management Plan (SWMP) in accordance with Paragraph 34 of Planning Policy Statement 10 '*Planning for Sustainable Waste Management*'. The SWMP should be prepared in accordance with DTI guidance '*Site Waste Management Plans: Guidance for Construction Contractors and Clients - Voluntary Code of Practice*', available at the following internet address: www.dti.gov.uk/construction/sustain/site_waste_management.pdf. This can be secured through a suitably worded planning condition. The SWMP must be linked to the demolition methods statement and also to the EMP and should address the following issues:
    - Wastes to be produced and where possible how they will be recycled/ recovered;
    - Steps to be taken to minimise the quantities of waste produced and maximise the on-site use of recycled materials;
    - Procedures for the management of waste onsite and waste leaving the site;
    - Relevant information associated with the Duty of Care (i.e. details of the waste carriers, waste transfer and sites that have been identified to accept the waste).

28. It is important that the applicant actively seeks to achieve waste minimisation during construction activities. The SWMP should include measures to ensure the identification of suitable material for re-use and recycling on-site wherever feasible. It is recommended that a full building audit and site investigation takes place to identify the different wastes present onsite and likely to be encountered during demolition and construction work. This is consistent with the Key Planning Objectives stated in paragraph 3 of Planning Policy Statement 10. It is

important that the material to be re-used on-site is fully characterised to ensure it is suitable for use and that there are no unacceptable risks or potential disposal activities carried out without appropriate approval. The demolition of any buildings without first determining the nature and quantity of material contained within it will result in a lost opportunity to maximise a valuable resource.

Soils and Ground Contamination

29. We note that the ES acknowledges that potential sources of ground contamination have been identified on site. Consideration is given to the requirements for a site investigation to determine whether there is any ground contamination at the site (paras 7.91 to 7.98). However, this has not been carried out and the impacts of this cannot therefore be adequately quantified or assessed. We will defer to comments from colleagues in the Halton Borough Council Environmental Health Department with respect to contamination issues associated with the proposal.

30. Section 2.92 refers to the civil works required in preparation of development. It is hoped that a cut and fill balance is achieved. There is no consideration given to the impacts of disposal of surplus materials, import of extra materials, or disposal of unsuitable materials. **We advise that the applicant be requested to provide clarification on this matter prior to determination.**

Air Quality

31. Whilst air quality is note one of Merseyside EAS's core areas of expertise, we note that the air quality assessment of particulate emissions covers only PM_{10}s. We are aware of emerging concern regarding the potential health impacts of finer particulate matter and in a development of this type and scale and it would seem appropriate for this issue to receive attention.

Cumulative Impacts

32. With regard to air quality, some consideration is given to cumulative impacts with other proposed construction activities, and with the vehicular as well as CHP impacts from the proposed development. However, cumulative impacts with existing industrial chemical air emissions do not seem to be assessed. The existing emissions seem to be referred to as ambient air quality. This does not seem appropriate. **We advise that the applicant be requested to provide clarification on this matter prior to determination.**

Conclusion

33. In conclusion, whilst we wish to be supportive of the principle of the proposed development, the application has some significant weaknesses that we consider must be addressed prior to determination. The most substantive of these are
    - Inadequate discussion and justification of the technology to be chosen over other technologies. Particular attention should be given to BATNEEC, Energy Hierarchy, emissions and climate change, and the relationship with waste strategy;
    - Insufficient information on the specification and nature of the SRF/RDF. This is important for several reasons including an assessment of what proportion of the fuel can be defined as biomass and therefore as 'renewable'. However, given the scale of the development and the scale of the fuel need for the facility is such that it could have a significant impact on the emerging municipal waste management strategies in the fuel 'catchment' areas such as Merseyside. For example, if it is known that there is an outlet for SRF/RDF this could have a significant impact on technology choice. Whilst this may have potential benefits there are also risks in terms of future specifications and energy technologies.
    - Lack of a comprehensive sustainability appraisal; and

- Insufficient information for Habitats Regulations Assessment.

We would be happy to provide further information upon request.

Contact Officer: Paul Slinn
Tel: 0151 934 2791
Email: paul.slinn@eas.sefton.gov.uk

C:\Work\Ineos Chlor\DC Memo HA06001.doc

Connor, Sarah - Environment

From: Paul Slinn [Paul.Slinn@eas.sefton.gov.uk]
Sent: Friday, March 30, 2007 2:43 PM
To: Control, Dev
Subject: Ref. 07/00068/ELC - Ineos Chlor Vinyls

DC Memo HA06001.doc

FAO. Andrew Plant

Dear Andrew

Please find attached Merseyside EAS's comments regarding the proposed energy from waste project at Ineos Chlor Vinyls. I hope the comments are helpful and please don't hesitate to get in touch if we can be of further help.

Regards

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MEMO

To: Andrew Plant
Organisation Environmental & Regulatory Services Dept
Halton Borough Council

From: Paul Slinn
Environmental Projects Team Leader

Your Ref 07/00068/ELC
File Ref HA06/001
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Application to Construct and Operate an Energy from Waste Combined Heat and Power Generating Station with an Approximate Capacity of 360MW Thermal and up to 100MW of Electrical Power at Ineos Chlor Vinyls, South Parade, Runcorn, Cheshire

Thank you for consulting Merseyside EAS on the above Environmental Statement (ES), which encompasses the application referenced above. We have commented on issues that relate to our core expertise, but it is also important that the Council seeks the views of colleagues in other departments and also those of the Environment Agency on the acceptability of the ES and development proposal. Merseyside EAS was not consulted on the scoping of this environmental impact assessment, though we note that a scoping exercise did take place. We note that responsibility for determination of the application does not lie solely with Halton Borough Council and we are content for our comments to be brought to the attention of the Secretary of State for Trade and Industry where appropriate.

Merseyside EAS is generally supportive of proposals that seek to recover energy from waste efficiently, as they have the potential to increase sustainable waste management practices according to the waste hierarchy, while at the same time supporting increased energy generation from renewable sources as promoted by the energy hierarchy and reducing demand for primary fossil fuels. For those reasons, we would hope in due course to be able to support this proposal. However, as detailed below, we believe that the applicant has some further work to do in order to clearly demonstrate the sustainable nature of the project.

It is our general position that, while much of the information and analysis presented in the ES is appropriate, we feel that there are areas in which the Environmental Statement is not sufficiently definitive. Accordingly, we advise that there are a number of areas where it is necessary to require additional information prior to determination and that there are also a number of issues that will require attention through conditions of consent.

For ease of reference, our comments can be characterised as follows:

- Matters requiring clarification through additional information prior to determination can be found in paras ....
- Matters that can be dealt with through condition can be found in paras ....

We make the following comments:

General

1. Many of the predicted environmental impacts identified are capable of being managed and mitigated and the ES contains a range of appropriate proposals to do so. **We advise that all proposed mitigation measures are secured through binding mechanisms such as consent conditions, section 106 agreements or by inclusion within an environmental management plan.**

2. The ES contains welcome commitments to the proposed use of procedural mitigation in the form of a Code of Construction Practice (CoCP) linked to a Construction Environmental Management Plan (CEMP), particularly as a draft of the document is provided for review in the ES appendices. However, there is no apparent proposal for an ongoing Environmental Management Plan (EMP) and no indication of how the operation of the plant will interface with other management practices employed on the site by the operator. **We advise that an EMP would be an appropriate vehicle for taking forward the implementation of key mitigation measures, and that it should be submitted to the Secretary of State for approval prior to the commencement of works.** Merseyside EAS would be pleased to review and comment on the draft EMP prior to agreement. This can be secured through a suitably-worded planning condition.

3. The EMP should be time limited and should include details of the measures envisaged during construction to manage and mitigate the main environmental effects of the proposed development. Included within its scope should be measures related to construction and demolition waste management, pollution prevention, soil resource management, noise, vibration, air quality and the prevention of nuisance. The EMP should be compiled in a coherent and integrated document and should be accessible to the site manager(s), all contractors and sub-contractors working on site, forming a single point of reference for site environmental management. Arrangements for review should be put in place and relationships to wider site environmental management systems and procedures should be defined.

4. The justification for the project included a discussion of emerging waste and energy policy drivers and is set out in Chapter 3 of the ES. It places the project in the context of the favourable drivers for the adoption of energy from waste technology, combined heat and power schemes, and energy from renewable sources. This is a valid approach, especially with regard to the specific characteristics of this particular site, but could have been strengthened with a clearer discussion of the relationship to climate change, the waste and energy hierarchies and wider sustainability issues. We would expect that a project of this scale and type would have been accompanied by a sustainability appraisal but, in the absence of one, the proposal would benefit from a much more detailed discussion of these issues in the ES.

Description of the Project

5. It is accepted that the proposal is for a combined heat and power plant, and that the Ineos site has significant heat and power requirements in order to operate. However, the ES lacks detail about the precise inputs and emissions from the CHP, and whether this is proven to be the Best Available Technology. This lack of detail has bearing on the impacts of the proposed operational plant and its justification in terms of the energy hierarchy, waste strategy and climate change. **We advise that the applicant be requested to provide clarification on this matter prior to determination.**

6. Section 2.21 gives predicted quantities of RDF/SRF from the surrounding sub-regions. Section 2.22 discusses the possibility of burning of other non-hazardous wastes or biomass. There is no discussion of the quantities of other biomass, where it would be sourced from, what it would be or how it would get to site. **We advise that the applicant be requested to provide clarification on this matter prior to determination.**

7. Section 2.47 discusses waste products from the process. This is not particularly well quantified ranging from 150,000 and 275,000 tonnes per annum. The worst case scenario is that there would be 32.4% residue from an original 850,000tonnes input. This in itself is an impact for consideration. We would wish to see all bottom ash beneficially used, as this would represent a poor use of landfill void. However, the ES fails to discuss the potential market demand for the beneficial re-use of bottom ash and it is therefore unclear what proportion it may be possible to re-use compared to the expected landfill requirement. **We advise that the applicant be requested to provide clarification on this matter prior to determination.** The amount of residue produced should be an important factor informing the choice of process technology for the scheme and we would expect this to be reflected in a more detailed discussion in the context of BATNEEC as part of the examination of alternative options (see also paragraph 9 below).

8. With regard to fly ash and FGT residues, there is a proposal to dispose of this to Randle Island landfill, but there is no detail regarding the capacity and lifespan of the landfill, or the impacts of this disposal requirement once the landfill closes in terms of hazardous waste landfill availability in the North West region. **We advise that the applicant be requested to provide clarification on this matter prior to determination.**

9. We are concerned that the section on alternatives focuses on location and layout, failing to discuss technological options. Attention should be given to alternative technologies, for example plasma gasification, which is more efficient in terms of power generation and produces minimal quantities of residue. However, we also note that the detailed technology selection has not yet been made (para 2.30 of the ES) and we are concerned that this is not made more clear in the ES and its implications for the impact studies explained. It is our view that this uncertainty over the final form that the process will take, together with the failure to discuss the main technological alternatives, constitutes a significant weakness in the ES. **We advise that the applicant be requested to provide clarification on this matter prior to determination** as the choice of technology will have a material effect on the significance and nature of environmental impacts within the EIA.

10. Section 2.70 states that the majority of fuel would be received by rail (600,000 tonnes) and the rest by road (480,000 tonnes). Is this a realistic assumption given that some uncertainties remain about the technology to be used and the mix of SRF and biomass fuel to be employed? Some of the alternative sites are ruled out because of the lack of rail links. We encourage the scheme to promote sustainable transport options wherever possible within the context of the strategic transport infrastructure for waste, but we do not feel that the soundness of the ESs projections for fuel transport have been thoroughly demonstrated. **We advise that the applicant be requested to provide clarification on this matter prior to determination.**

Fuel

11. Section 3.16 states that RDF is likely to contain 60% biomass, but RDF is derived from municipal solid waste and, whilst this will contain organic matter, it is not biomass fuel and is likely to contain a significant quantity of plastics. However, the application fails to make clear what the precise specification and minimum requirement for the composition of the fuel will be and this therefore requires further elaboration. There needs to be clearer discussion within this section on the relationship between the waste and energy hierarchies, and a reasoned estimate should be provided of the proportion of the generated energy that can be designated as

arising from renewable sources, including the proposed co-firing with separately-sourced biomass fuels, for which little detail is given. **We advise that the applicant be requested to provide clarification on this matter prior to determination.**

Water Resources and Drainage

12. Section 2.53 discusses emissions to water and contaminants in the 'operational' water. There is no quantification of the contaminants in the various effluent streams, but significant quantities of effluent are likely to be discharged. **We advise that the applicant be requested to provide clarification on this matter prior to determination.**

13. Section 7.34 discusses the proposals for surface water management. Surface water drainage provision is currently inadequate on the site and this will be upgraded as part of the development. We commend the proposal to re-use surface water run-off, and would recommend that this is further enhanced by collection of roof run off. The current proposal is for roof run off to go to soakaway. It would be more beneficial if this was re-used. Also, should ground contamination be revealed, it may not be possible to use infiltration systems. However, in line with the provisions of Policy Planning Statement 25, *Development and Flood Risk*, Merseyside EAS supports the use of Sustainable Urban Drainage Systems (SUDS) techniques wherever they are appropriate.

14. Although it is stated that cooling waters will be discharged via existing pipes and outfalls into the Runcorn - Weston Canal and eventually the Mersey Estuary, there is no explanation or consideration of the likely temperature of the cooling waters on discharge. It will be important to know if the cooling water discharge will be at ambient temperature of the receiving water course, lower, or higher. Given the proximity of the Mersey Estuary SPA a matter such as this should have been considered and **we advise that the applicant be requested to provide clarification on this matter prior to determination.**

15. The ES acknowledges that the CHP plant will use large quantities of water. However no estimate is given for the actual quantity and rate of use and the implications for additional abstraction of water are not provided. Whilst this is primarily a matter for the Environment Agency through abstraction and discharge licensing and consent processes, **we advise that the applicant should be requested to clarify process water supply arrangements and quantities, both in absolute terms and as an additional proportion of existing abstraction licenses held by the applicant (If applicable), prior to determination.**

Ecology

16. The impact of the extent and proposed treatment of the contaminated land on the site has been considered only from a human health angle. The Contaminated Land Regulations identify specific ecological receptors that should be considered, including European nature conservation sites such as SPAs, SACs etc. This appears to be an omission. **We advise that the applicant be requested to provide clarification on this matter prior to determination**

17. Figure 2.1 shows the landscape proposals that are included within the scheme as 'built-in' mitigation. These proposals indicate that a visual planted screen will be created to the south of the facility only. The proposals form barely an acceptable minimum and do nothing to improving screening of industry from the Estuary. It is difficult to see how the proposals meet the advice contained in PPS9, particularly key principle (ii) and paragraph 14 where the advice states "Development proposals provide many opportunities for building-in beneficial biodiversity or geological features as part of good design. When considering proposals, local planning authorities should maximise such opportunities in and around developments, using planning

obligations where appropriate." We advise that the applicant should be asked to look again at the landscape proposals and enhance the biodiversity gains within this proposal.

18. We advise that the methodology used in assessing the impact on Ecology (Chapter 6 of the ES) is acceptable, although it should be noted that the applicant has taken a 'pick and mix' approach to acceptable methodologies and this can lead to selectivity of significance of impacts. This chapter summarises the issue of appropriate assessment under the Habitat Regulations with reference to the air quality assessment - that is considered in Chapter 10 *Air Quality*. The ecological significance (or not) of those identified air quality impacts is not dealt with sufficiently.

19. We have considered the question "is there enough information submitted to enable the screening of the proposal against the requirements of the Habitat Regulations, specifically regulations 48 & 49?" There is a discrepancy between this list of European sites in this chapter and those quoted in the Air Quality assessment (Appendix 6.5). Additional sites between 10 and 15km from the application site are considered in the Air Quality Assessment (Midland Mosses & Meres Phase 1 and 2 Ramsar sites). These should have been included in the Ecology chapter. From our review of the information, this aspect is the one of most concern. For example, no detail has been provided on the expected dispersion pattern of NOx, SOx and acid deposition and its relationship to prevailing wind characteristics. Also, the basis for the air quality assessment parameters used is unclear. Accordingly, we advise that without additional information the competent authorities would not be able to screen the proposal as required under the Habitat Regulations. Clearly therefore the applicant will need to provide this additional information to assist the competent authorities in discharging their statutory duties under the Habitats Regulations. This information should be provided prior to determination. Natural England should be consulted on the application and whether, in its view, there is a likelihood of significant effects.

20. A series of mitigation measures have been included in the ES and we advise that these should be subject to planning conditions as follows:

    - Paragraph 6.35 - no vegetation clearance between 01 Mar and 31 Aug in any year.
    - Paragraph 6.36 - reptile survey for submission and approval together with detailed method statement for translocation methodology and receptor site/timing etc to be agreed prior to any works commencing.
    - Paragraph 6.37 - CoCP- Appendix 2.3 paragraphs 1.30 - 1.31 are acceptable and should be subject to planning condition.
    - Paragraph 7.131 - proposals to consider ponds as SuDS - condition required for submission of detailed drainage proposals that include biodiversity enhancement and landscape mitigation.

21. Paragraph 6.45 - no details of the surveyor(s) qualifications or experience have been submitted. It would be premature to accept the extended phase 1 survey and species list until those details are submitted and are found to be acceptable. This goes to the heart of the quality of the data used in the assessment and we advise that this information be requested from the applicant prior to determination.

22. Paragraph 6.93 - does not highlight the Section 74 list of principal habitats and species that local planning authorities must take into account under the Countryside and Rights of Way Act. For example, has the phase 1 survey or desk study identified the presence of any of these principal habitats and species? We advise that the applicant be requested to provide clarification on this matter prior to determination.

23. Paragraph 6.144 - A hand-search of potential refugia for great-crested newts has been undertaken. This is an unreliable method of determining whether great-crested newts are

present on the site. There is a likelihood of a small remnant population (cf. the small population translocated from the other Ineos Chlor site that is reference in the ES). **Hence, we advise that a great-crested newt survey is required prior to determination.** This survey needs to be undertaken using the standard methodology and can take place between February and June depending on local climatic conditions.

24. Paragraph 6.166 – states that there is no requirement for a habitat regulations assessment as there is no likely significant effect on any of the sites. This does seem to be at odds with the statements in the Air Quality assessment where deposition will add to the current rates of deposition that already exceeds critical loads. On this basis, **we advise that it is not possible to conclude that there is no likely significant effect on the information submitted and that the proposal does need to be screened in detail.**

Construction and Demolition

25. The demolition of any remaining structures must take place in a manner that does not pose unacceptable risks to the environment or human health. The demolition methodology must also consider the potential for impacts on the nearby controlled waters and its ecology, which may be caused by demolition debris or solids transported by water. **We advise that the applicant should review '*Pollution Prevention Guidance Note 6*',** produced by the Environment Agency (web link http://publications.environment-agency.gov.uk/pdf/PMHO0203AUDJ-e-e.pdf?lang=_e), which provides specific information for use in construction and demolition projects, and incorporate this into the agreed method statements for the CoCP.

26. **We advise that the applicant produce a suitable demolition methods statement, which must receive prior written approval before before any demolition works commence.** The methods statement must be linked to the Site Waste Management Plan (see below), which will detail the types and quantities of waste likely to be encountered and methods of handling the material on-site, and also to the EMP, if appropriate. This can be secured through a suitably worded planning condition.

Waste Management

27. The proposed development may generate a significant quantity of waste, some of which may be non-hazardous, inert or possibly hazardous. **We advise that the developer should prepare a Site Waste Management Plan (SWMP)** in accordance with Paragraph 34 of Planning Policy Statement 10 '*Planning for Sustainable Waste Management*'. The SWMP should be prepared in accordance with DTI guidance '*Site Waste Management Plans: Guidance for Construction Contractors and Clients – Voluntary Code of Practice*', available at the following internet address: www.dti.gov.uk/construction/sustain/site_waste_management.pdf. This can be secured through a suitably worded planning condition. The SWMP must be linked to the demolition methods statement and also to the EMP and should address the following issues:
    - Wastes to be produced and where possible how they will be recycled/ recovered;
    - Steps to be taken to minimise the quantities of waste produced and maximise the on-site use of recycled materials;
    - Procedures for the management of waste onsite and waste leaving the site;
    - Relevant information associated with the Duty of Care (i.e. details of the waste carriers, waste transfer and sites that have been identified to accept the waste).

28. It is important that the applicant actively seeks to achieve waste minimisation during construction activities. The SWMP should include measures to ensure the identification of suitable material for re-use and recycling on-site wherever feasible. It is recommended that a full building audit and site investigation takes place to identify the different wastes present onsite and likely to be encountered during demolition and construction work. This is consistent with the Key Planning Objectives stated in paragraph 3 of Planning Policy Statement 10. It is

important that the material to be re-used on-site is fully characterised to ensure it is suitable for use and that there are no unacceptable risks or potential disposal activities carried out without appropriate approval. The demolition of any buildings without first determining the nature and quantity of material contained within it will result in a lost opportunity to maximise a valuable resource.

Soils and Ground Contamination

29. We note that the ES acknowledges that potential sources of ground contamination have been identified on site. Consideration is given to the requirements for a site investigation to determine whether there is any ground contamination at the site (paras 7.91 to 7.98). However, this has not been carried out and the impacts of this cannot therefore be adequately quantified or assessed. We will defer to comments from colleagues in the Halton Borough Council Environmental Health Department with respect to contamination issues associated with the proposal.

30. Section 2.92 refers to the civil works required in preparation of development. It is hoped that a cut and fill balance is achieved. There is no consideration given to the impacts of disposal of surplus materials, import of extra materials, or disposal of unsuitable materials. **We advise that the applicant be requested to provide clarification on this matter prior to determination.**

Air Quality

31. Whilst air quality is note one of Merseyside EAS's core areas of expertise, we note that the air quality assessment of particulate emissions covers only PM_{10}s. We are aware of emerging concern regarding the potential health impacts of finer particulate matter and in a development of this type and scale and it would seem appropriate for this issue to receive attention.

Cumulative Impacts

32. With regard to air quality, some consideration is given to cumulative impacts with other proposed construction activities, and with the vehicular as well as CHP impacts from the proposed development. However, cumulative impacts with existing industrial chemical air emissions do not seem to be assessed. The existing emissions seem to be referred to as ambient air quality. This does not seem appropriate. **We advise that the applicant be requested to provide clarification on this matter prior to determination.**

Conclusion

33. In conclusion, whilst we wish to be supportive of the principle of the proposed development, the application has some significant weaknesses that we consider must be addressed prior to determination. The most substantive of these are
    - Inadequate discussion and justification of the technology to be chosen over other technologies. Particular attention should be given to BATNEEC, Energy Hierarchy, emissions and climate change, and the relationship with waste strategy;
    - Insufficient information on the specification and nature of the SRF/RDF. This is important for several reasons including an assessment of what proportion of the fuel can be defined as biomass and therefore as 'renewable'. However, given the scale of the development and the scale of the fuel need for the facility is such that it could have a significant impact on the emerging municipal waste management strategies in the fuel 'catchment' areas such as Merseyside. For example, if it is known that there is an outlet for SRF/RDF this could have a significant impact on technology choice. Whilst this may have potential benefits there are also risks in terms of future specifications and energy technologies.
    - Lack of a comprehensive sustainability appraisal; and

- Insufficient information for Habitats Regulations Assessment.

We would be happy to provide further information upon request.

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