APPENDIX 1

REPRESENTATION AND CONSULTATION REPLIES RECEIVED

CHESHIRE COUNTY COUNCIL

Environmental Planning Service

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Backford
Chester CH1 6PZ

Alan S Thornley
County Planning Officer

Andrew Plant
Environmental and Regulatory Service Department
Halton Borough Council
Rutland House
Halton Lea
Runcorn
WA7 2GW

Date 18 April 2007

Our Ref

Your Ref

HALTON BOROUGH COUNCIL
ENVIRONMENT AND DEVELOPMENT DIRECTORATE
RECEIVED 23 APR 2007
FOR ATTENTION OF AT LB ASP

Dear Sir/Madam

TOWN AND COUNTRY PLANNING ACT 1990
CONSULTATION ON PLANNING APPLICATION

APPLICATION NUMBER: AA/07/00068/ELC

PROPOSAL: Notification under Section 36 of the Electricity Act 1989 and Section 90(2) of the Town and Country Planning Act 1990 to the Secretary of State for Trade and Industry for consent 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.

LOCATION: Ineos Vinyls UK Ltd, 4056 The Heath Business & Technical, RUNCORN, WA7 4QX

APPLICANT NAME: Ineos Chlor Vinyls, South Parade, Runcorn

Further to my letter acknowledging your request for the County Council's comments as strategic planning authority on the above application, I am now able to inform you of the County Council's response.

The matter was considered under the County Planning Officer's delegated powers, and the response is: -

That Halton Borough Council be informed that Cheshire County Council as strategic planning authority does not object to the principle of an energy from waste combined heat and power generating station at Ineos Chlor Vinyls, South Parade, Runcorn as it accords with Adopted RSS policies DP1, EQ4 EQ5 and EQ6, however it is considered

that additional information should be requested on traffic movements within Cheshire (particularly of HGV's) and specifically in the Vale Royal area and the environmental implications of these movements

Thank you for consulting the County Council on this matter, and I hope this information is of use to you.

Yours faithfully

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DELEGATED REPORT - STRATEGIC CONSULTATION

APPLICATION NUMBER: AA/07/00068/ELC

PROPOSAL: Notification under Section 36 of the Electricity Act 1989 and Section 90(2) of the Town and Country Planning Act 1990 to the Secretary of State for Trade and Industry for consent 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.

LOCATION: Ineos Vinyls UK Ltd, 4056 The Heath Business & Technical, RUNCORN, WA7 4QX

APPLICANT: Ineos Chlor Vinyls, South Parade, Runcorn

DECISION CRITERIA AND CONSIDERATIONS

Introduction

Ineos Chor Limited is seeking the consent of the Secretary of State for Trade and Industry for the development of an 'Energy from Waste' (EfW) Plant on land at the INEOS site in Runcorn. Halton Borough Council has consulted the County Council on this consultation under Section 36 of the Electricity Act 1989 and Section 90(2) of the Town and Country Planning Act 1990 from the Secretary of State for Trade and Industry. The proposal is on a 18.6 hectare brownfield site within the northern part of the INEOS Runcorn plant.

This proposed EfW plant would act as a combined heat and power facility to produce both steam and electricity to be consumed on the Runcorn site, with a capacity of 360MW (thermal) and 100MW of electricity. This would provide 20% of INEOS's Runcorn site energy requirements and replace energy derived from natural gas. The plant would operate 24 hours a day 365 days a year. The facility would have a range of buildings with the main EfW building at 47 metres in height with a 105 metre high stack.

The facility would be fuelled from treated municipal waste sourced primarily from local authorities in the North West region. It would have the capacity to consume approximately 750,000 to 850,000 tonnes of fuel per year. This would be sufficient to consume fuel that could be produced by Manchester, Merseyside, Halton, Cheshire and Warrington. The facility would be served by both road and rail, with an estimated 400 HGV vehicles per day, 62 light vehicles movements and 5 trains servicing the site. There is the opportunity for future receipt of fuel by barge, depending on the prospects of the proposed Western Docks/Port of Weston development. The facility would employ approximately 50 people.

The EfW plant would produce approximately 260,000 tonnes per year of bottom ash, fly ash and flue gas treatment residues. The bottom ash can be reused for building blocks and road aggregates. The fly ash and residues are classed as hazardous waste and would be taken to an existing landfill operated by INEOS licensed for hazardous waste at Randle Island, Runcorn 4km away by road.

Policy Considerations:-

National Policy – PPS10 Planning for Sustainable Waste Management sets out guidance on locating waste management facilities.

Adopted Regional Spatial Strategy
The Core Development Principles policies DP1 – 4 set the regional framework for all development proposals. Policy DP1 advocates economy in the use of land and buildings taking into account the sequential approach to meeting development needs with the reuse of buildings and infrastructure, followed by previously developed land, followed by undeveloped land. Policies DP2 - 4 aim to enhance the quality of life, quality in new development and promote sustainable economic growth and competitiveness and social inclusion.

Policy SD2 aims to secure wide ranging regeneration and environmental enhancements. It states very significant environmental enhancement, in terms of image and opportunities for a higher quality of life overall is required in Runcorn. Development within these areas should be sustainable and complementary to the development required in order to fulfil Policy SD1 above. Policies EQ4, EQ5 and EQ6 deal with regional approach to planning for waste management facilities and state that proposals will be required to adopt the sequential approach set out in the core development principles and the spatial development framework.

Submitted Draft Regional Spatial Strategy (The Panel Report is awaited.)
Policy DP1 sets out the regional development principles reiterating the sequential approach, and the need to tackle climate change by reducing $C0^2$ emissions including from energy generation. Runcorn is in the Northern part of the Liverpool City region covered by Policy LCR3.

Policies EM10, EM11EM12 and EM13 set the regional framework for locating waste management facilities. One of the waste management principles includes recovering value in the form of energy from waste that is not recycled.

Halton Unitary Development Plan (Adopted 2005)
Policy MW 13 Energy Recovery states proposals for any facility to dispose of wastes which have a potential for energy recovery will not be permitted unless it makes provision for energy recovery. Policy MW14 Incineration states proposals for waste incineration plants must meet a list of criteria, which include location within Employment Area and not within close proximity to residential areas or other sensitive land uses, no other suitable sites closer to waste arisings, not have an unacceptable visual impact or detrimental impact on economic regeneration or investment confidence, or existing industries, incorporate a MRF, be located so as to make use of rail or water transport methods and would not cause pollution that would have an unacceptable detrimental impact on surrounding land uses.

Consultation Responses:-

2 letters of objection from members of the public on the grounds of; capacity of the incinerator exceeds the capacity required to burn all of Cheshire's waste and will undermine recycling; incineration produces ash which requires disposal by landfill; noise and traffic impacts from 24 hour operation; existing pollution in area; not true form of renewable energy and does not follow the proximity principle.

Sutton Parish Council object to the application on the grounds; the installation would have detrimental effects on the local area and given human fallibility and mechanical failure represents a health risk to local people; it would be an eyesore; it would require the transportation on local roads of tens of thousands of tonnes of hazardous waste each year; risk of dioxins, dust and heavy metals into the local environment some of which are carcinogenic.

Frodsham Town Council object to the proposal on the grounds that the proposed development would be detrimental to the health of our residents; the ecology and nature conservation of the area; the amenity of the local population in terms of noise, light, disturbance and general amenity; and the local transport infrastructure. The Town Council requests a public inquiry is held to examine all the aspects of the impacts of the proposal.

The County Engineer states the Transport Assessment submitted with the application purely covers the impact of development on the roads in the immediate vicinity of the Ineos Chlor site. The TA states that the proposal could receive 150,000 tonnes of waste from the Cheshire area and 187 daily HGV trips on the Expressway South. However there is no breakdown of the figures to indicate the number of HGV movements which would be generated by the proposals within the Cheshire area or more specifically the Vale Royal Area. It is therefore difficult to comment on the transport implications of the proposal within Cheshire.

The County Waste Manager supports the application and their comments are appended in full to this report.

The County Environmental Protection Officer states that based on an assessment of the information accompanying the application, the proposed development should not cause any significant air quality and noise impacts in Cheshire. However, it would appear that no consideration has been given to the environmental impacts of the associated road transport on the Cheshire road network.

Strategic Planning Issues:-

The proposed location is a brownfield site in an existing industrial area. The site therefore meets the sequential test for locating development in terms of regional planning policy. The proposed EfW plant would be a compatible use within the existing industrial uses and would complement the existing employment uses on the site. It would also provide local employment opportunities and provide energy to the existing on site industry.

The buildings associated with the EfW Plant are 47 metres in height with a stack of 105 metres for the discharge of flue gas. The visual impact of the plant from settlements within Cheshire, namely Frodsham and Helsby and M56 motorway would be minimal set within the existing industrial context.

The site also has the ability to receive waste by rail and potentially water transport methods if proposals at Weston Docks/Port of Weston come forward. The proposal therefore complies with policy aims of reducing transportation of waste by road. The split between road and rail would determined by the local authorities in the location of the MBT plants providing the

RDF/SDF fuel, therefore the true multi-modal nature of the proposal is unknown at this stage, although the potential is there. Therefore assuming that the waste from Cheshire would be transported by road, the Transport Assessment does not consider the impact of the traffic movements of waste being transported from Cheshire to the proposed plant by road. Likewise the Environmental Statement does not consider the environmental impacts of this traffic generation.

The energy produced from this plant would replace energy currently produced by the existing on-site gas fired power station. The proposal provides an opportunity to create energy from pre-treated waste, which is supported by policies in policy EM11 of the submitted draft RSS .

There is a need to divert waste from landfill under the requirements of the EU Landfill Directive. This proposal would provide a destination for pre-treated waste, which will be required as part of the region's network of sustainable waste management facilities. The capacity of the facility would be sufficient to meet a large quantity of the regions treated waste arisings, including Cheshire's.

Conclusion: -

A brownfield site within an existing industrial installation is in principle a suitable location for an Energy from Waste Plant in line with Adopted RSS policies DP1 and policies EQ4- 6. The proposal would be complimentary to an existing industrial installation and provide energy from waste which can be utilised on site for existing processes which currently use energy generated by natural gas. The proposed site also has the opportunity for waste to be transported by rail and potentially by water linking in with the Port of Weston development and therefore conforms with RSS policy EQ6. However it is considered additional information is required relating to traffic movements that would the proposal would generate and the environmental implications of these within the Cheshire area.

RECOMMENDATION:

That Halton Borough Council be informed that Cheshire County Council as strategic planning authority does not object to the principle of an energy from waste combined heat and power generating station at Ineos Chlor Vinyls, South Parade, Runcorn as it accords with Adopted RSS policies DP1, EQ4, EQ5 and EQ6, however it is considered that additional information should be requested on traffic movements within Cheshire (particularly of HGV's) and specifically in the Vale Royal area and the environmental implications of these movements.

SIGNED: -

Case Officer: ..... Date: 17/4/07

Authorising Officer: ..... Date: 17/7/07

CHESHIRE COUNTY COUNCIL

Waste Management Service

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Mr Alan Thornley
County Planning Officer
Environmental Planning Service
Cheshire County Council
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CH1 6PX

Date: 2nd April 2007

Our reference	Your reference	Telephone	Ask for
WMS/JPT/SAH		01244 603579	John Thistlewood

Dear Mr Thornley,

CONSULTATION RESPONSE OF, CHESHIRE COUNTY COUNCIL, IN ITS STATUTORY CAPACITY AS WASTE DISPOSAL AUTHORITY,

STRATEGIC PLANNING APPLICATION

APPLICATION NO: AA/07/00068/ELC

PROPOSAL : Notification under Section 36 of the Electricity Act 1989 and Section 90(2) of the Town and Country Planning Act 1990 to the Secretary of State for Trade and Industry for consent 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.

LOCATION: Ineos Vinyls UK Ltd, 4056 The Heath Business and Technical, Runcorn, WA7 4QX

APPLICANT: Ineos Chlor Vinyls, South Parade, Runcorn.

Thank you, in your capacity as Strategic Planning Authority for seeking the views of the Waste Disposal Authority on the Application by Ineos Chlor Vinyls UK Ltd as outlined in a memorandum from Emma Hancock, Environmental Planning Service, Cheshire County Council dated 27 February 2007.

The responses expressed below are made by me as County Waste Manager on behalf of the Waste Disposal Authority and duly authorised in that regard. I therefore request that this reponse is appended to the wider response that you will make to Halton Borough Council .

1. Major changes are required to waste management practices in Cheshire to ensure that Government targets for recycling and landfill diversion are met or exceeded.

Continued/overleaf

2. In order to meet these requirements, new waste management infrastructure will be required. The County Council does not own or operate any waste treatment facilities.

3. The Cheshire Waste Partnership (CWP) comprising the County Council (Waste Disposal Authority) and the six District Councils (Waste Collection Authorities) has been working together to review the way in which household waste is managed.

4. The CWP considered a broad range of technological and performance solutions in the development of its waste management strategy and following detailed evaluation and appraisal of short listed options determined a Reference Project which was felt to meet the CWP's objectives and ensure Cheshire's landfill allowances would be met.

5. The Reference Project was defined as high recycling, with residual waste going to a Mechanical Biological Treatment (MBT) process with the resulting Refuse Derived Fuel (RDF) arising as a by product going to either a third party facility or a bespoke facility that would burn the RDF to produce energy in the form of electricity and/or heat.

6. New facilities will be required to deliver the Reference Project.

7. The project proposed by Ineos Chlor Vinyls UK Ltd could deliver that part of Cheshire's Reference Project involving the thermal treatment of RDF. If this residual waste was sent to landfill, the County Council could fail to achieve its biodegradable municipal waste diversion targets and if so would be liable to volume-linked "fines" incurred under the Landfill Allowance Trading Scheme ("LATS") as imposed by the Waste and Emissions Trading Act (2003). Because of Cheshire's household waste volumes, those fines could run into millions of pounds and comprise a very significant additional burden on the Council tax in Cheshire.

8. The County Council has started the procurement of long term waste management contracts. The County Council is proposing to procure the waste treatment services PFI contract(s) as two separate service elements or Lots for which separate contracts may be awarded. Lot 1 is for a design, build, finance, operate (DBFO) waste treatment facility or facilities to treat residual waste such that BMW is diverted from landfill in accordance with performance standards. BMW diversion performance may either be achieved in totality within Lot 1 or through the production of an appropriate quantity of RDF which is then managed by others through Lot 2. Lot 2 is for a DBFO facility or facilities to handle the RDF output of Lot 1 in accordance with performance standards. Ineos Chlor Vinyls UK Ltd has expressed interest in Lot 2.

9. The Regional Spatial Strategy (RSS) for the North West of England recognises that although primary residual municipal waste treatment will be located in the Waste Planning Authority area in which the waste arises, secondary treatments such as energy recovery from Refuse Derived Fuel (RDF) are more likely to be located on a regional strategic basis. The proposal would therefore be, in conformity with the RSS.

Continued/overleaf

10. It is the view of the Waste Disposal Authority that the proposal by Ineos Chlor Vinyls UK Ltd is consistent with Government policy for local authorities to reduce the amount of waste they dispose of to landfill and as such would play an important part in the UK's overall waste management strategy.

11. The facility would provide a potential outlet for RDF produced as part of any waste treatment solution proposed for Cheshire. It would help to meet the County's obligations under the Landfill Directive. For these strategic reasons, **the Waste Disposal Authority supports the Application.**

Yours sincerely

Harold A. Collin

Harold Collin
County Waste Manager

Environmental and Regulatory Services Department
Rutland House
Halton Lea Road
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Cheshire
WA7 2GW

Warrington Borough Council

John Earle
Head of Service
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Development

Environment Services
Directorate
New Town House
Buttermarket St.
Warrington
WA1 2NH

Our ref: dar/ineoschlor03
Your ref:07/00068/ELC

Date: 20 March 2007

Dear Sir

Notification under Section 36 of the Electricity Act 1989 and Section 90 (2) of the Town and Country Planning Act 1990 for consent to construct and operate an EfW/CHP generating station. Ineos Chlor, Runcorn. Application reference 07/00068/ELC

Thank you for consulting the Borough Council on the above submission.

WBC does not wish to raise any objections to the proposed development but would like to make the following comments.

1. WBC supports the principle of sustainable waste management by moving waste up the waste hierarchy in order to reduce the amount of waste going to landfill. The Council acknowledges the significant energy usage of the Ineos Chlor plant and supports the generation of energy from waste and in particular the use of the energy within the existing plant infrastructure.

2. This facility will be of regional significance providing a major contribution to the long term regional waste management needs in the event that adjoining authorities commit to the production of appropriate fuel sources. It is therefore the case that the facility would be consistent with PPS 10 and draft RSS. WBC is currently revising the MWMS and is hopeful that the Borough will be able to deal with its own waste arisings.

3. The ES transport assessment has been reviewed and this includes both a construction and operational element. The construction element can be discounted as Warrington would only be affected by the daily operational traffic movements to and from the facility.

   The total anticipated HGV generation is 384 movements/day with some 62 car trips in and out of the site. Given that the site is located in Runcorn, the potential vehicle movements that may affect Warrington are from the Manchester conurbation and almost all of these trips will use the motorway network in particular the M56. The Merseyside movements have no need to come through Warrington and the same applies to the vehicles from Cheshire. Therefore when the total number of new trips is broken down

Alan Stephenson
Strategic Director
Environment Services

Chief Executive
David Whitehead

and distributed onto the road network the percentage of traffic coming towards Warrington in only small and even this will, in the main be kept on the motorway network.

In summary, there are no highways objections to the proposed facility. In the interests of sustainable development it is recommended that the DTI require the developer to maximise the use of the rail network for the delivery of waste materials to the plant. It is also recommended that in the event the proposal is approved the DTI conclude an agreement or attach an appropriate condition to restrict all HGV movements to the motorway network and prohibit wagon movements through the built up areas of the Borough.

The comments of the Environmental Health & Protection service have not yet been received and these will be forwarded to you as soon as possible.

Please do not hesitate to give me a call if you need any further clarification of the above.

Yours faithfully

D. Ringwood

David Ringwood

Minerals and Waste Planning Officer

Please contact:	David Ringwood
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Ack Ack 5/3/07 S.C.

Helsby Parish Council

2nd March 07

Mr P Watts – Operational Director
Environment & Regulatory Services
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WA7 2GW

HALTON BOROUGH COUNCIL
ENVIRONMENT AND DEVELOPMENT DIRECTORATE
RECEIVED 05 MAR 2007
FOR ATTENTION OF ASP

Dear Sir,

Application No. 07/00068/ELC

Notification under Section 36 of the Electricity Act 1989 and Section 90(2) of the Town & Country Planning Act 1990 to the Secretary of State for Trade and Industry for consent 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

Please be advised, that it is the opinion of the Parish Council to recommend the refusal of the above-mentioned application on the grounds of 'Human Health Risk' to the residents of Helsby and surrounding area.

We enclose a report, written by Prof. J C Dearden on the Council's behalf, entitled 'Human Health Risk Assessment' and this report, in its entirety, is the evidence of the health impact of perceived threat. We strongly urge you to read the report prior to making your decision.

We would be obliged if you could furnish us with copies of any amendments to the application and/or your recommendation to the DTI (by e-mail if more convenient) by way of keeping us informed, thanks very much.

We look forward to hearing from you.

Yours sincerely,

Jeanette Hughes (Mrs)
Parish Clerk

cc. Mr Mike Hall MP
Mr R Ellison – Head of Planning & Building Control VRBC
Secretary of State for Trade and Industry
Vale Royal Borough Councillors - Mrs Gretta Cousins
Prof. Les Ford
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QUALITY PARISH COUNCIL

Report on 'Human Health Risk Assessment', part of a planning application by INEOS Chlor for an Energy from Waste Project on the INEOS Chlor chemical site at Runcorn, Cheshire

Prepared for Helsby Parish Council by
J.C. Dearden
BSc, MSc, PhD, ACGI, MRPharmS(Hon)

QSTAR CONSULTING

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Cheshire WA6 9LG

Tel: 01928-722292

February 2007

Report on 'Human Health Risk Assessment', part of a planning application by INEOS Chlor for an Energy from Waste Project on the INEOS Chlor chemical site at Runcorn, Cheshire

Prepared for Helsby Parish Council by J.C. Dearden BSc, MSc, PhD, ACGI, MRPharmS(Hon) of QSTAR CONSULTING

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1. Introduction

INEOS Chlor submitted to the Department for Trade and Industry on 19 January 2007 an application for consent to construct and operate a generating station on their Runcorn site. The application included a Human Health Risk Assessment (HHRA) prepared by Dr. A. Hashm of RPS, Conrad House, Beaufort Square, Chepstow, Monmouthshire NP16 5EP. The present report is a comment on the above-mentioned HHRA.

The INEOS Chlor application is for an energy-from-waste (EfW) heat- and power-generating station that would burn between 750,000 and 850,000 tonnes per year (tpy) of refuse-derived fuel (RDF). It would have a capacity of about 360 megawatts (MW) thermal and 100 MW electrical power.

The HHRA examined chemicals that would be likely to have acute or immediate effects and those that would be likely to have chronic or long-term effects. Those in the former category were given as acid substances, such as sulphur dioxide, nitrogen dioxide, hydrochloric and hydrofluoric acids, and other inorganic chemicals such as carbon monoxide and fine particulate matter. Those chemicals in the second category were given as metals and semi-volatile and non-volatile organic chemicals such as dioxins and furans.

Potential human health impacts were evaluated not only in terms of inhalation, but also in terms of overall long-term exposure *via* other viable routes such as the food chain. Hence the assessment was carried out on persistent substances that have the potential to accumulate in the environment over the operational life of the facility. Worst-case scenarios were assumed, even though these were considered unlikely. The 105 metre high stack was assumed to be the only source of emissions.

2. General comments

The HHRA is quite wide-ranging, but in my view is flawed in several respects. Most serious is the total omission of any consideration of the health impact of fine particulate matter. The HHRA mentions that the majority of dioxins and furans will be emitted in the particle or particle-bound phase, but fails to recognise that fine particles *per se* are dangerous.

The HHRA assumes that the only source of emissions would be the stack. It neglects to take account of the pollution from site traffic during construction and operation.

The HHRA ignores the toxic effects of thallium and vanadium, and does not even mention the risks from polybrominated diphenyl ethers (PBDEs).

No sites within Frodsham town or Helsby village were considered in the HHRA assessment.

The HHRA fails to acknowledge the existence of perceived threat from a plant of this nature.

It is not clear from the HHRA whether, in the dispersion studies, the nature of the terrain was adequately taken into account.

The HHRA assumes that above-ground produce is protected within an outer covering, so that root uptake is the primary mechanism through which above-ground protected produce becomes contaminated.

The HHRA uses an erroneous intake target level for dioxins of 50 pg/kg(of body weight)/day for infant exposure through breast milk (pg = picogramme, 10^{-12} g, 1 million millionth of a gramme), thereby incorrectly claiming that the estimated daily intakes are well below the target level.

The HHRA incorrectly claims that all estimated carcinogenic risks are significantly below the target level of 1 in 100,000, and also uses an incorrect target level.

The presentation of some numerical and other information in the HHRA is unclear.

3. Health impacts of fine particulates

Fine and ultrafine particulate matter is increasingly recognised as a dangerous pollutant. (By "fine" is meant particles smaller than about 2.5 microns in diameter (PM2.5s), whilst "ultrafine" means particles smaller than about 0.1 micron in diameter (PM0.1s). Such particles do not settle out readily, but remain suspended, and can thus travel for many miles. Neither do they deposit in the upper reaches of the respiratory tract, but are drawn deep into the lungs. They are produced in large quantities in an incinerator, and they are too small to be filtered out; this is the case especially for the ultrafine particles, which are also the most dangerous. The HHRA does not discuss particle size at all, thereby failing to recognise that the important parameter is surface area; for a given weight of particles, the surface area of PM2.5s is four times that of PM10s, and that of PM0.1s is 100 times that of PM10s. This is important, because pollutants are adsorbed onto the surfaces of the particulate matter, and are thus drawn deep into the lungs with the particles. In addition, toxic pollutants such as dioxins are formed post-incineration in concentrations up to 100-fold the concentration during incineration, so that the particulate matter can be very highly toxic. In addition the particulate matter itself can lead to fibrosis, leading in turn to cytokine release, which results in blood platelet formation and hence heart attacks and strokes [1]. These tend to peak about four days after a high release of particulates. Fine particulates have also been associated with respiratory disease [2, 3], lung cancer [4], reduced immunity [5] and other health problems [6]. A very recent paper [7] demonstrates that short-term exposure to PM2.5s increases the risk of hospital admission for cardiovascular and respiratory diseases. Persistent free radicals are present in combustion-generated fine and ultrafine PMs, and these radicals can induce DNA damage, leading possibly to cancer [8]. There is also evidence that sudden infant death syndrome (SIDS) is linked to airborne particulates [9]. Pope and Dockery [10], Cormier et al. [11] and Gwinn and Vallyathan [12] have recently reviewed the health effects of fine particulate pollution. The last-named authors comment that "Large numbers of studies have reported associations between ultrafine particle exposure and morbidity in elderly and compromised individuals. Furthermore, recent studies also emphasize the impact of day-to-day variations in particle concentrations and exposures for short periods as important factors in cardiac events in predisposed population".

It is interesting to note that in 1999 Michael Meacher, the then Minister for the Environment, in evidence to a House of Lords Select Committee on the European Communities [13], said: "*Incinerator plants are the source of serious toxic pollutants: dioxins, furans, acid gases, particulates, heavy metals, and they all need to be treated very seriously. There must be absolute priority given to human health requirements and the protection of the environment*", and "*I repeat that the emissions from incinerator processes are extremely toxic. Some of the emissions are carcinogenic. We know scientifically that there is no safe threshold below which one can allow such emissions. We must use every reasonable instrument to eliminate them altogether*".

It is thus clear that fine and ultrafine particulate emissions have serious acute and chronic effects. The HHRA is seriously flawed by its failure to consider particulate emissions.

4. Health impacts of traffic pollution

The HHRA neglects to take account pollution from the estimated 446 vehicle (384 HGV + 62 car) movements per day during operation, and the peak estimated 1330 vehicle (400 HGV + 930 car) movements per day during construction. It may be noted also that the estimated 62 car movements (31 cars) per day during operation seems very low.

Cordier et al [14] have observed that the incidence of cardiac anomalies, obstructive uropathies and skin anomalies increased rectilinearly with road traffic density in the vicinity of an incinerator. Of course, there is much through traffic on the Runcorn Expressway close to the proposed site of the EfW plant, but the additional traffic generated at the site will add to the problem.

5. Health impacts of thallium, vanadium and polybrominated diphenyl ethers (PBDEs)

The HHRA states that in the absence of toxicological data for thallium, and in the absence of chemical-specific data for vanadium for the estimation of its concentration in different exposure media, these metals were not included in the assessment.

In fact, there is considerable toxicological information available for these metals. For example, the human LD_{50} value (dose to kill 50% of recipients) is given as 15 mg/kg [15]. The rat LD_{50} value of vanadium is about 50 mg/kg, and the estimated safe intake is 100 μg/day; vanadium is known to cause respiratory problems. Much concern was expressed locally about vanadium toxicity when Ince B power station was burning oremulsion, which had a high vanadium content. It should have been possible for the HHRA to have included at least a rough estimate of the likely health impacts of thallium and vanadium from the proposed EfW plant.

PBDEs are very widely used as flame-retardants in plastics, textiles, construction materials and electronic equipment [16]. They are resistant to degradation and accumulate in the food chain and in the body because they are highly lipophilic. It has been reported [17] that incineration converts PBDEs to polybrominated and polybrominated/polychlorinated dioxins and furans. It is not known whether PBDEs

can survive incineration or be re-formed post-incineration, although the latter is quite possible. Because of this, and because of the ubiquity of PBDEs, especially the most toxic, namely decabromodiphenyl ether, it is considered that an assessment of the risk that these chemicals pose should have been included in the HHRA.

6. Health impacts in Frodsham and Helsby

No "sensitive receptor locations" to assess potential health impacts of the plant were located in Frodsham town or Helsby village, although four sites on Helsby and Frodsham Marshes were used. There are a number of "sensitive receptor locations" that could have been utilised, such as primary and secondary schools and old people's residential/nursing homes. It is considered that the omission of such sites in Frodsham and Helsby constitutes a serious failure of the health impact assessment.

7. Health impacts of perceived threat

The HHRA makes no mention of perceived threat. However, wherever an incinerator is proposed, there is always strong local opposition to it, because of a perceived threat to health and amenity. Such perceived threat can cause stress and worry, as was highlighted in a recent report [18]. It should also be noted that the threat of an incinerator generally causes property prices in the area (up to several miles away) to fall [19-23], which is an additional cause of stress and worry.

8. The nature of the terrain

The HHRA states that, in the dispersion studies, the nature of the terrain was taken into account. However, there are houses close by, A stack of about 100 metres in height is normally considered necessary for flat terrain, so it would appear that a 105 metre stack for the proposed EfW plant is inadequate.

Appendix 10.1, Annex A, of the Air Quality Assessment documents submitted with the planning application for the EfW plant give some details of why a stack height of 105 metres was chosen. Two modelling procedures, AERMOD and ADMS 3.3, were used to determine stack height. Initially flat terrain was assumed, yielding recommended stack heights of 95 m (AERMOD) and 115 m (ADMS). Assuming complex terrain, AERMOD results indicated that, for stack heights > 105 m, ground level contributions from the stack did not decrease materially with increasing stack height. A similar finding was observed with ADMS for stack heights > 115 m.

However, consultations with Liverpool John Lennon Airport revealed that, because of aviation safety issues, stack height was limited to a maximumof 106 m. It was therefore decided to recommend a stack height of 105 m.

There are houses close to the proposed EfW plant site, at a considerably higher level than the plant, and Runcorn town rises to an elevation of about 80 metres, whereas the base of the stack would be at an elevation of about 15 metres. It seems odd, to say the least, that when the average recommended stack height from AERMOD and ADMS is 105 m based on a flat terrain model, the final recommended stack height is exactly the same. That is, the hilly nature of Runcorn has been completely ignored. Some housing

in Runcorn would be only 40 m above the top of the stack, which is far below the minimum recommended by the AERMOD and ADMS models.

Annex A also appears to be somewhat disingenuous in saying that for stack heights above a specified value, ground level contributions from the stack would not decrease materially with increasing stack height. What is not said is what those ground level contributions were calculated to be; they are highly likely to be in excess of those calculated for flat terrain.

However, in the final analysis, a totally extraneous factor, the proximity of Liverpool John Lennon Airport, has restricted stack height to 105 m, a height that, based on the above comments, is almost certain to increase ground level contributions from the stack to unacceptably high levels.

The conclusion must therefore be drawn that the Ineos Chlor site is unacceptable, from a health risk standpoint, for the EfW plant.

9. Contamination of above-ground produce

The HHRA assumes that above-ground produce is protected within an outer sheath such as a pod, so that root uptake is the primary mechanism through which above-ground protected produce becomes contaminated. The HHRA ignores widely-grown vegetables such as cabbage, Brussels sprouts and lettuce, none of which has a protective sheath, some peas and beans that are eaten with their pods, and a wide variety of fruit, both hard and soft. The HHRA also assumes that corn grown for cattle-feed is protected, whereas in fact such corn-cobs are usually eaten with their protective covering still in place. Thus the estimates of human uptake from above-ground produce, and of uptake by cattle from corn-feed, are clearly too low.

10. Estimation of risks to infants

The HHRA states that the USEPA (United States Environmental Protection Agency) intake target level of dioxins (calculated as 2,3,7,8-TCDD TEQ (toxic equivalents)) is 50 pg/kg/day. This is totally incorrect. In fact the USEPA has no intake target level, preferring to base estimates of toxicity on body burdens (i.e. the total amount of dioxins in the body). This was confirmed to me by Dr. Dwain Winters of the USEPA in a telephone conversation on 21 February 2007. He stated that the typical United States dioxin intake was 1 pg/kg/day, which he stated is a level to cause concern, and said that a safety factor of 10-100 could be applied to that figure, yielding an acceptable intake level of 0.01-0.1 pg/kg/day. Even the top level is 500 times lower than that claimed incorrectly by the HHRA. However, Professor Janna Koppe of The Netherlands has stated [24] that there is no safe level of dioxin intake for babies. Prof. Koppe is an internationally recognised expert on the effects of dioxins on infants and children, and has published widely on the subject [25-28]. Prof. Koppe has also recently presented data at the 2006 Dioxin Congress [29] showing delayed initiation of breast development in girls with higher prenatal dioxin exposure; this confirms similar findings in rats [30]. Boersma and Lanting [31] have pointed out that the daily dioxin intake of breast-fed infants may be as high as 80-fold higher than in adults.

Table 3.9 in the HHRA shows predicted daily dioxin intakes for infants at various receptors around the proposed EfW plant. The HHRA claims that levels at all receptors are well below their (incorrect) target level of 50 pg/kg/day. In fact, using the target level suggested by the USEPA of 0.01-0.1 pg/kg/day, levels at all receptors are above the 0.01 pg/kg/day level, and in all but two cases are above the 0.1 pg/kg/day level.

It follows that the proposed EfW plant, far from yielding dioxin levels well below the USEPA target level, would yield dioxin levels well above acceptable levels for infants. Hence effects such as those found by Koppe (*loc. cit*) and others could be expected. This is an extremely serious failure of the HHRA.

11. Estimation of carcinogenic risks

The HHRA states that the target level for cancer risk is 1 in 100,000, or 10^{-5}. It then goes on to state that the calculated cancer risks for children and adults at various receptors around the proposed EfW plant are all significantly below the target level of 10^{-5}. In fact, several of the calculated cancer risks are quite close to the 1 in 100,000 target level, and one is actually slightly above.

However, the main criticism of the HHRA in this respect is that the USEPA's generally accepted target level for cancer risk is not 1 in 100,000, but 1 in 1,000,000 (one in a million). This is a *de minimis* level [32], and Michaelson [33] has pointed out that the USEPA has usually determined that only *de minimis* levels of risk (one in a million) are acceptable. This means that for 23 out of the 37 receptors, the calculated cancer risk from the proposed EfW plant is greater than the accepted target level. Hence the proposed plant is shown, by the calculated figures given in the HHRA, to be a serious cancer risk for the surrounding population.

12. Unclear presentation of data

Mention is made in the HHRA of compounds such as dioxins and furans, and specific examples of these, without explanation for the non-scientist of what they are. It would have helped to have a brief explanation, as has been provided in Appendix 1 of this report.

The use of units in some parts of the HHRA is unclear. For example, it is stated on page 12 of the HHRA that the normalised volumetric flow rate has units of $Nm^{-3}S^{-I}$, where m represents metres and S represents seconds. In fact, N presumably means "normalised", and is not a scalar quantity. Furthermore, volumetric flow rates should be in cubic metres per second, not per cubic metre per second. That is, the units of normalised volumetric flow rate should be written as $m_N{}^3S^{-1}$.

A second criticism is that the headings of Tables 2.2 and 2.3 in the HHRA are unclear. Firstly there are two columns with identical headings (Emission Concentration (mg Sm^{-3})), with no explanation of their differences. Secondly, concentrations are normally in units of, for example, milligrammes per cubic metre (mg m^{-3}), but units of time appear to be included. It is possible to envisage milligrammes per cubic metre per second (mg $S^{-1}m^{-3}$), but not milligramme.seconds per cubic metre, which is what "mg Sm^{-3}" means. Neither it is explained how the final column, Emission rate (g s^{-1}) is arrived at, nor why the representation of seconds has changed from S to s.

There is no explanation of units or abbreviations of units for the non-scientist reading the HHRA. A simple table, such as that provided in Appendix 2 of this report, would have helped.

13. Conclusions

The HHRA has been found to be flawed in a number of respects. It is seriously flawed in that it ignores the health impacts of fine and ultrafine particulate emissions, underestimates the risks to infants, and underestimates the cancer risk to the general population. It is also flawed in that it ignores the health effects of traffic pollution, of thallium, vanadium and of polybrominated diphenyl ethers. It fails to estimate health effects in two large local centres of population, Frodsham and Helsby, and it fails to recognise the effects of perceived threat. It does not appear adequately to have taken into account the nature of the terrain in the dispersion modelling, and it incorrectly assumes that above-ground produce will not be affected by air-vegetation transfer of pollutants. It is also unclear in several aspects of presentation.

It is recommended that the HHRA be not accepted as part of Planning Application 07/00068/ELC without major correction and revision.

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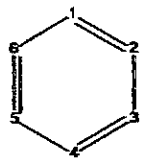
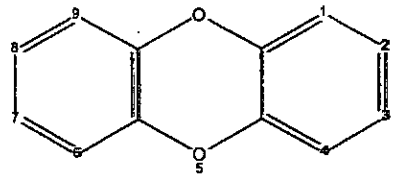
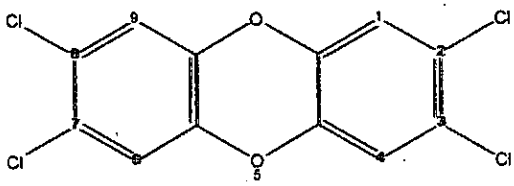
Appendix 1. Representations of relevant chemical structures



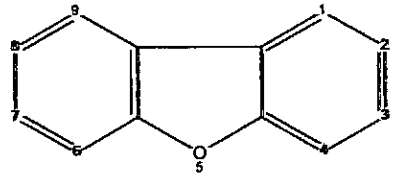
Benzene: a ring of 6 carbon atoms, each with 1 hydrogen atom attached



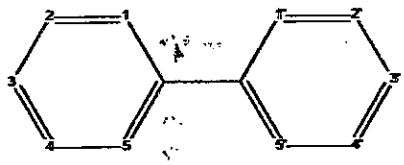
Dibenzo-*p*-dioxin, with substituent positions numbered. There are 75 possible polychlorinated dibenzo-*p*-dioxins



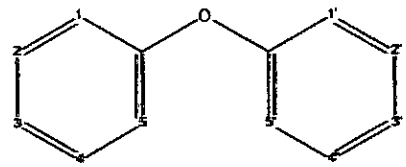
2,3,7,8-tetrachlorodibenzo-*p*-dioxin, the most toxic polychlorinated dioxin



Dibenzofuran, with substituent positions numbered. There are 135 possible polychlorinated dibenzofurans



Biphenyl, with substituent positions numbered. There are 209 possible polychlorinated biphenyls



Diphenyl ether, with substituent positions numbered. There are 209 possible polybrominated diphenyl ethers

16. Appendix 2: Explanation of units

The basic unit of weight in the metric system is the gramme (g). There are approximately 454 g in 1 lb.

1 kilogramme (1 kg)	= one thousand grammes (1000 g, 10^3 g)
1 milligramme (1 mg)	= one thousandth of a gramme (0.001 g, 10^{-3} g)
1 microgramme (1 μg)	= one millionth of a gramme (0.000001 g, 10^{-6} g)
1 nanogramme (1 ng)	= one thousand millionth of a gramme (0.000000001 g, 10^{-9} g)
1 picogramme (1 pg)	= one million millionth of a gramme (0.000000000001 g, 10^{-12} g)
1 femtogramme (1 fg)	= one thousand million millionth of a gramme (0.000000000000001 g, 10^{-15} g)

The basic unit of length in the metric system is the metre (m). 1 metre is about 3 ft 3 in.

A concentration of, say, 5 picogrammes per cubic metre is written as 5 pg m^{-3}.

A flow rate of, say, 50 cubic metres per second is written as 50 m^3 s^{-1}.

Secretary of State for Trade & Industry
c/o Bay 2121
1 Victoria Street
London
SW1H 0ET

Mr. P Edmonds
Chairman, Moore PC
Beechfield, Hobb Lane
Moore
Warrington WA4 5QS

17 MAY 2007

Dear Sir or Madam,

Town and country planning act 1990 Application Number 07/00068/ELC
Consent to Construct and Operate an Energy from Waste Combined Heat and Power Generating Station on Land owned by INEOS at Weston Point, Runcorn, Cheshire.

As Chairman of Moore Parish Council, I am writing to lodge my strong objection to the proposed construction and operation of an energy from waste combined heat and power generating station in this area.

Halton is already one of the most highly polluted areas in the Country, resulting from its industrial heritage, extensive soil pollution, air pollution associated with traffic emissions, and the increase in air traffic to and from the Liverpool John Lennon Airport. Together, these are particularly prevalent in the area identified for the construction of the proposed generating station, and can only increase the threat to the health and well being of residents who live in an area which has one of the highest standard mortality ratios (SMR's) and levels of cancer, heart and respiratory diseases in the United Kingdom.

The arguments presented against a previous application for a similar plant in this area still apply to the proposed plant in Weston Point. There can be no denying that some dioxins and poisonous gasses will be formed and released into the atmosphere. The operation of an incinerator burning waste derived fuel, containing carbon from paper, wood and card and chlorine compounds (which are building blocks for the formation of carcinogenic compounds such as dioxins) is highly undesirable. To then extend the residence time in the 600-300 degrees centigrade phase by passing the fumes through a heat exchanger merely serves to guarantee their formation.

Even if the proposed Plant operated under all relevant regulations and laws, the proposed site of this potential source of cancer and birth defect-causing poisons at the bottom of a fifty metre hill within a residential area and a primary school on the slopes, poses a real threat of harm for the residents of the area of Halton as a whole, and would have a major impact on the lives of all concerned.

Apart from this, any development that envisages twenty four hour traffic, seven days a week, would overstretch the already overcrowded roads of Halton, furthering traffic pollution and noise and adding to the problems of maintenance to the Borough's road systems. If rail were to be used, this would again add to the current high level of noise pollution in the area.

Moore is directly in line to suffer from the increased air pollution and any of the proposed transport arrangements, as the village is close to both major road and rail networks. The village already has a large landfill site on its doorstep, and I feel that this incinerator would be a step too far.

To date, as Halton Borough Council's Officers are already aware, other similar plants have been denied permission to build or operate in this area, and I fail see why this application should be regarded more favourably.

Yours faithfully

Peter Edmonds
Chairman, Moore Parish Council

Copy to: Operational Director
Environmental & Regulatory Services
Halton Borough Council
Rutland House, Runcorn, Cheshire. WA7 2GW

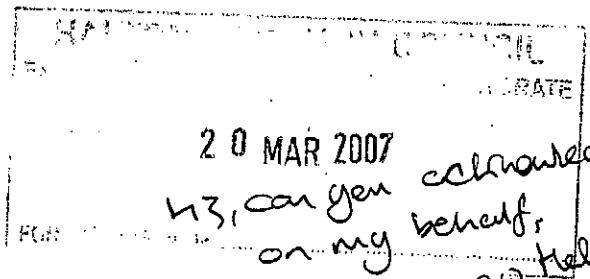
DEREK TWIGG M.P.

HOUSE OF COMMONS
LONDON SW1A 0AA

Ref: DT/MT/4019/21

16 March 2007

Mr Phil Watts, Operational Director
Environment & Planning Directorate
Halton Borough Council
Rutland House
Halton Lea, Runcorn
Cheshire WA7 2ES



Dear Phil

07/00068/ELC Planning Application Ineos Chlor

I have received 20 letters from constituents voicing their opposition to the above planning application. I have also met Ineos to discuss with them my concerns which are the following:

- Halton being a receptacle for a large amount of the North West's waste and the impact on our image.

- The height of the stack and the fact that large parts of the land around the Ineos site are higher. While the prevailing wind may take emissions most of the time away from housing, this will not always be the case.

- Health impact of any emissions, particularly given the carcinogenic nature of dioxins, although I believe there would have to be strict controls about the level of emissions

- The potential significant increase in the number of heavy goods vehicles coming into Halton to deliver waste.

As the Council is a statutory consultee and the planning authority (albeit with no decision making power on this application) I would be grateful if the contents of my letter can be brought to the attention of the relevant committee.

Yours sincerely,

Derek Twigg

Cc: Chris Tane, Ineos

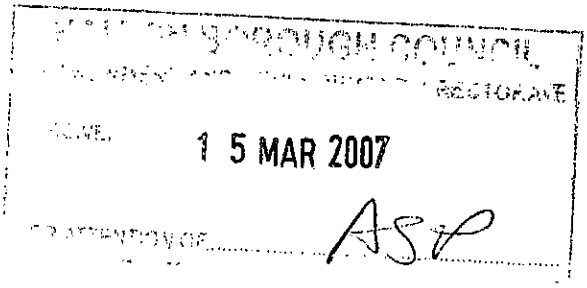
THE CONSTITUENCY OF HALTON
WIDNES RUNCORN (WEST) HALE

Constituency Office: Tel: 0151 424 7030 Fax: 0151 495 3800

Ack 20131078.c.

MIKE HALL MP
WEAVER VALE

HOUSE OF COMMONS
LONDON SW1A 0AA



Mr P Watts – Operational Director
Environment & Regulatory Services
Halton Borough Council
Rutland House
Halton Lea
Runcorn
WA7 2GW

Our Ref: ***HUGH01006/01070278MF***
(Please quote in all correspondence)

12 March 2007

Dear Mr Watts,

Planning Application 07/00068/ELC

I have been contacted by a number of constituents and Helsby Parish Council who object to the above.

The primary objections of my constituents and Helsby Parish Council is the threat posed to public health by the proposed heat from the waste incinerator at Weston Point Runcorn.

Helsby Parish Council has commissioned Professor Dearden to produce a Human Health Risk Assessment Report which details concerns about the threat to public health from the emissions from the proposed incinerator and the emissions from vehicles bringing waste to and from the site.

The Report by Professor Dearden is a comprehensive one that details the risk to public health in the general population, the infant population and the carcinogenic risks.

I share the concerns about the risk to public health from the incinerator which will spread across a large and diverse area. I am particulary concerned about the emission of dioxins from the proposed incinerator. Dioxins are a very dangerous and carcinogenic chemical. They pose a real threat to public health in an area that already suffers from poor health.

The increase in heavy goods vehicles bringing into Halton waste from Liverpool, Manchester, Cheshire and beyond will also add to congestion and increase exhaust emissions. This in turn will also have an impact on the environment, the quality of the air and on public health.

For the above reasons I wish to register my objections to Planning Application 07/00068/ELC.

SERVING THE CONSTITUENTS OF WEAVER VALE
Constituency Office: Office 4, Castle Park, Frodsham, Cheshire, WA6 6SB
Tel: 01928 735000 E-mail: hallm@parliament.uk
www.epolitix.com/Mike-Hall

Can you please ensure my views are put before the relevant committee of the Council when this planning application comes forward for consideration.

Yours sincerely,

Mike Hall MP

ACK 30/3/07 5 C

Connor, Sarah - Environment

From: council@frodsham.gov.uk
Sent: Friday, March 30, 2007 11:31 AM
To: Control, Dev
Subject: Planning Application 07/00068/ELC

Dear Sir/Madam

Please find below the Frodsham Town Council's objections to the above proposal:

1. Frodsham Town Council believes that the proposed development would be detrimental to the health of our residents.

2. The proposal is detrimental to the ecology and nature conservation of the area.

3. The proposal is detrimental to the amenity of the local population in terms of noise, light, disturbance and general amenity

4. The proposal will have a huge and detrimental impact on the local transport infrastructure.

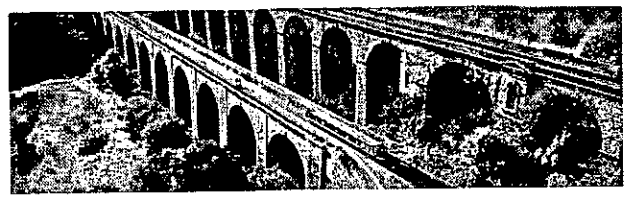
Frodsham Town Council states that a public enquiry should be called to examine all aspects and impacts of this proposal.

If you should require any further information, please do not hesitate to contact me.

Regards

Anne Pitt
Frodsham Town Council
01928 735201

British
Waterways
Dyfrffyrdd
Prydain



Our reference: WBC-HAT-07-38

Mr Andrew Plant
Halton Borough Council (Planning)
Rutland House
Halton Lea
Runcorn
Cheshire
WA7 2GW

Date: 07 March 2007.

Dear Mr Plant,
Application number: 07/00068/ELC.
Proposal: consent 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.
Location: Ineos Chlor Vinyls, South Parade , Runcorn, Cheshire.
Waterway: Weaver Navigation.

Thank you for the consultation in respect of the above. After due consideration of the application details, we would like to take this opportunity to support the aspiration to transport Solid Recovery Fuel to the site via a wharf (not yet constructed) on the Runcorn and Weston Canal and the surrounding waterway network. This would utilise sustainable transport modes other than road in accordance with policies MW1 and MW14 of the Halton Unitary Development Plan (April 2005). In order that we can effectively monitor our role as a statutory consultee, please send me a copy of the decision notice in due course.

Yours sincerely,

John Spottiswood BA BPI MA MRTPI
Planner

British Waterways
Wales and Border Counties Waterways

Cynllunydd

Dyfrffyrdd Prydain
Cymru a'r Gororau

XP

ACIC 713075.C.

Direct Line 01925 537254
Direct Fax 01925 537516
Lesley.Johnson@uuplc.co.uk

Andrew Plant
Environment
Halton Borough Council
Rutland House Halton Lea
Runcorn
,WA7 2GW

Your ref 07/00068/ELC
Our ref 07/866
Date 27-FEB-07

Dear Mr Plant

Location : Ineos Chlor Vinyls, South Parade, Runcorn
Proposal : Not stated

Thank you for your planning consultation of 09 February 2007.

I have no objection to the proposal.

This falls outside United Utilities area for electricity.

Yours sincerely

Lesley Johnson
Asset Protection

United Utilities
External Planning Liaison
Ground Floor, Thirlmere House
Lingley Green Avenue
Warrington
WA5 3LP.

Deni Newman, Co-ordinator
Halton Friends of the Earth
C/o 93, Highfield Road
Widnes
Cheshire WA8 7DH
Tel: 0151 424 2324

8th March 2007

Mr. Robert Pridham
Onshore Power Consents
Department for Trade and Industry
C/o Bay 2121
1, Victoria Street
London SW1H 0ET

APPLICATION NO. 07/00068/ELC - INEOS Runcorn site,
RDF Planning Application

Dear Mr. Pridham,
I am writing on behalf of Halton Friends of the Earth to express our objection to the above proposal. Please consider this as a holding objection as we shall be responding more fully on the following points:

- **Local Health:** the proposed facility will create an additional and unacceptable pollution load in a borough that for decades has been exposed to heavy industrial and chemical pollution, has some of the worst health in the country and lower life expectancy levels than elsewhere
- **The perceptions** of local residents of existing and proposed industrial developments and associated impacts on human health are such that stress is a real factor affecting the quality of life for many
- In spite of improvements in technology we are aware that emissions will still occur, especially of fine particulates (<PM10s, ie PM2.5) heavy metals and hormone disrupting chemicals, all of which are harmful to human health
- We are concerned that the projected figures for emissions trumpet the fact that they will be below authorised levels (50-65%) but do not appear to take into account the cumulative effects of ***all*** registered pollutants from this site or, indeed, industry in Halton as a whole; please note that this proposed facility will form part of the largest chemical producing plant in the UK on the very edge of a major town
- The proposed facility is unacceptably close to residential areas in terms of both possible impacts on human health and visual amenity
- The proposed facility will give rise to unacceptable traffic increase both in

bringing materials and disposing of waste ... with associated traffic pollution

- We are concerned that this proposal attempts to justify the burning of waste to create power and may to some extent be supported by the forthcoming Merseyside Waste Planning strategy, for which the public consultation commencement date has been delayed from February 23 to March 19
- **Local Economy:** We believe that the impact on the local economy will be severe: in spite of great efforts by the local authority Halton does not enjoy a reputation for being the healthiest or most attractive place to live and work. We do not believe that any short-term new jobs created by the construction of this plant will advance the local economy. We do not believe that sufficient long-term jobs will be created to off-set the long-term damage to the borough as a whole (or indeed the region) in terms of health, well-being and attractiveness.
- It is possible that the intention to expand the Ineos Chlor plant will have a major negative impact on local economy as stated above and also on the NHS (health impacts, including stress), property values and other investment opportunities
- The proposal contravenes the stated aims and objectives of the adopted Halton Unitary Development Plan
- I wish to register this initial response to express our strongest objections to this application and we will respond more fully in due course.

Yours sincerely,

Deni Newman
For and on behalf of Halton Friends of the Earth

Vale Royal Borough Council

Social and Community Services Directorate

Wyvern House, The Drumber,
Winsford, Cheshire CW7 1AH

Tel: 01606 862862
Fax: 01606 862100 / 862088
01606 867771 (departmental)
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Richard P Hallows MBA, MCIEH
Director of Social and Community Services

The Operational Director of Environmental Health & Planning
Environment Directorate
Halton Borough Council
Rutland House
Halton Lea
Runcorn
WA7 2GW

HALTON BOROUGH COUNCIL
ENVIRONMENT AND DEVELOPMENT DIRECTORATE
RECEIVED 22 JUN 2007
FOR ATTENTION OF AA LM

our reference: Andrew Plant your reference: please ask for: Louise Roberts date: 20.6.2007

Dear Andrew,

Re: Notification under Section 36 of the Electricity Act 1989 and Section 90(2) of the Town and Country Planning Act 1990 to the Secretary of State for Trade and Industry for consent 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

With reference to the above application. I am writing to advise you that Vale Royal Borough Council Planning Committee has considered the proposal. The Council informs Halton Borough Council that it makes no objections to the proposed facility at the site, subject to specific requirements set out in paragraph 9.3 of the attached report. The following concerns have also been raised by members:

1. that use be made of water bourne transportation facilities to deliver waste to this proposed development;
2. a more detailed assessment of effect on human health be made. Particularly on the receptors in Frodsham and Helsby areas;
3. size of particulates and toxicity of emissions – in particular if Halton Borough Council or the Department for Trade and Industry has any doubts over the design of the plant in that the standards for emissions set by Department for Environment Food and Rural Affairs and monitored by the Environment Agency in the flue gases emitted by the plant will be exceeded, then the independent advice of a consultant who is a member of the Institute of Chemical Engineers should be sought and funded by Ineos Chlor;
4. that Cheshire's waste is given a priority over that of other areas; and
5. that where it is clear that this development will have an impact on Vale Royal, any mitigation to minimise those impacts in terms of the provision of planning obligations/ commuted sums provided for by a Section 106

I trust this information is of assistance. Vale Royal Borough Council would wish to encourage HBC to take account of its comments when formulating a response to the DTI. Should you require any further information please do not hesitate to contact me.

Yours sincerely

Louise Roberts
Planning Officer

VALE ROYAL BOROUGH COUNCIL

Date: 17th April 2007
Report of: Head of Planning & Building Control Services
Title: Notification under Section 36 of the Electricity Act 1989 and Section 90(2) of the Town and Country Planning Act 1990 to the Secretary of State for Trade and Industry for consent 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.

Report No:

1.0 Purpose of report

1.1 To consider a request from Ineos Chlor, Via Halton Borough Council adjoining authority consultation process, to erect the above mentioned facility at their Runcorn site.

2.0 Decision required

2.1 That the Council informs Halton Borough Council that it makes no objections to the proposed facility at the site, subject to specific requirements set out in paragraph 9.3 of the report.

3.0 Site Location (see Appendix A for location plan)

3.1 The site for the new facility would be within the existing Ineos complex on the Runcorn site. The existing site lies around the southern and western edge of the Runcorn peninsula and is an integrated complex of chemical plants based on the production and use of chlorine, caustic soda, chlorine derivatives and fluorine derivatives.

3.2 The site for the Energy from Waste Combined Heat and Power Generating Stattion (EfW) plant occupies an area of 10.7ha in the northern part of the Runcorn site, in the locale of Weston Point. This is bounded to the north and west by the Ineos Salt Plant and an adjoining power station, owned by Scottish and Southern Energy. Land beyond this is occupied by an industrial estate to the north and by Weston Point Docks to the west.

3.3 The Mersey Estuary is located approximately 200m to the west of the site, beyond Weston Point Docks. To the east of the Mersey, closer to the site, lies the Weaver Navigation, Manchester Ship Canal and the Runcorn & Weston Canal.

3.4 To the east of the site is a mix of industrial and recreational uses, with the Weston Point Expressway (A557) beyond. The site includes an area of partially used rail sidings which provides a link to Runcorn Station. To the south of the site is a main stores facility that services Ineos operations and beyond that is the Weston Point residential area.

4.0 Proposal

4.1 Ineos Chlor Ltd is seeking the consent of the Secretary of State for Trade and Industry for the development of an Energy from Waste Plant (EfW) on land at the Ineos Runcorn Site. The proposal would accept fuel derived from municipal waste to generate electricity and steam, which would be used at the Runcorn site.

4.2 The proposed EfW plant would act as a Combined Heat and Power (CHP) facility to produce both steam and electricity that would be consumed on the Runcorn site. The plant would provide approximately 20% of the Runcorn Site's energy requirement and replace energy that is currently derived from natural gas. The plant would operate on a 24 hour, 365 days per year basis.

4.3 Fuel derived from municipal waste would provide the main source of energy for the plant and it is expected that this would be sourced primarily from local authorities in the North West region. The fuel is the end product of the treatment of raw municipal waste. Treatment facilities are not part of the proposal at the Runcorn site.

4.4 The project would have the capacity to consume approximately 750,000 to 850,000 tonnes of fuel per year. This capacity would be sufficient to consume the quantities of fuel that could be produced by Manchester, Halton, Cheshire and Warrington.

4.5 In order to make space available on the site for the new facility the proposal will also involve the relocation of a number of existing Ineos workshop and training facilities within the Runcorn site. The proposed workshop and training facility would replace the existing workshop building on the site of the new complex. The new location for these buildings would be served by the Runcorn Expressway from the Bankes Lane slip road, which serves as the main vehicular route for road traffic entering the Runcorn site.

5.0 The Facility

5.1 The fuel would be burned in boilers, which would each comprise a combustion chamber and a steam generator section. The boilers would be housed in a boiler building up to 47m in height.

5.2 The high pressure steam produced would be passed through turbines to generate electricity. Medium pressure steam would be exported for use on the Runcorn Site. The gasses from the boilers would be treated prior to discharge into the atmosphere. The stack height would be approximately 105m in height in order to achieve the required gas dispersion.

5.3 In addition to the facilities mentioned above the proposal would also require support facilities including:

- Water treatment plant for the purification and storage of water for use in the boilers;
- Services and utilities;
- Offices; and
- workshops

6.0 Transport

6.1 It is anticipated that the fuel would arrive by both rail and road. A Transport Assessment has been conducted along these grounds with the worse case scenario of all fuel arriving by road taken into account. The results of this assessment do not predict any significant impact upon the highway network as a result of the proposal.

6.2 Due to the proximity of the site to the Manchester Ship Canal and the Weston Point Docks there would also be the opportunity for the future receipt of fuel by barge should any of the fuel providers be able to utilise this facility.

7.0 Consultations

7.1 A letter of objection has been received from Halton Friends of the Earth on the grounds of health impact through pollution and the perception of the development causing stress, air emissions, sustainability and economical impact.

7.2 A letter of objection has also been received from Helsby Parish Council on the ground of impact to human health..

7.3 Further consultation responses are dealt with in more detail later on in the report.

8 Issues

8.1 Planning Policy
National planning policy - Planning Policy Statement 10 Planning for Sustainable Waste Management (July 2005). Paragraph 6 (second bullet point) states that the RSS should deal with the pattern of waste management facilities of national, regional and sub-regional facilities. The requirement for regional planning bodies to consider the need for waste management capacity of regional or sub-regional significance and reflect any requirement for waste management facilities identified nationally is reaffirmed in paragraph 11.

8.2 The first Decision-Making Principle in paragraph 4 explains the relationship between regional spatial strategies (RSS) and local development documents (LDDs). It says that local authorities should prepare LDDs that reflect their contribution to delivering the RSS. Further guidance is given in paragraph 16. It indicates that LDDs should set out policies and proposals for waste management in line with the RSS.

8.3 Planning Policy Statement 10 (PPS10) 'Planning for Sustainable Waste Management' was published in July 2005 and states at paragraph 5 that if up-to-date waste development plans are unavailable then the policies in PPS10 can supersede policies in the development plan. However, paragraph 21 of PPS10 states that in deciding which sites are suitable for waste management facilities, priority should be given to the re-use of previously developed land.

8.4 Regional Planning Guidance for the North West (2003) (RSS)
RSS states that the 'proximity principle' should be one of the key principles that should govern decisions about waste management options (policy EQ4). The proximity principle states that waste should be managed as near as possible to its place of production to minimise transportation and its associated environmental impacts.

8.5 Policy EQ6 requires new major waste management proposals to adopt the sequential approach outlined in the Core Development Principles and Spatial Development Framework. The Core Development Principles through policy DP1 sets out this sequential approach. It gives priority to the use of previously developed land before the use of greenfield land.

8.6 This proposal is located on a brownfield site unlike the similar proposal that is located at Ince Marshes on a Greenfield site, previously considered by this Council with objections made to the County Council and subsequently refused the planning application.

8.7 Draft Regional Spatial Strategy for the North West (2006)
Policy EM12 maintains the 'proximity principle' as a key objective in planning for new waste management facilities.

8.8 Policy EM13 requires local planning authorities to enable the provision of facilities to deal with the indicative volumes of waste for their sub-region set out in tables 9.3, 9.4 and 9.5. In planning

for these facilities to meet these indicative sub-regional targets, the policy asks for account to be taken of the scope for co-location of complimentary activities such as resource recovery parks.

8.9 The supporting text to the policy in paragraph 11.27 says that new primary residual waste treatment capacity will be located within the local waste planning authority area in which the waste arises. In the case of secondary treatments, it indicates that these are more likely to be located on a strategic regional basis. Paragraph 11.30 discusses strategic facilities further. It says that they will include hazardous waste treatment, energy recovery from RDF, re-processing capacity for source segregated recyclate and new landfill capacity. Further research into the development of the integrated waste/reprocessing park concept is encouraged.

8.10 The proposal includes energy recovery both in the form of electricity and steam generation that will both be used on site.

8.11 The draft RSS is deliberately unspecific on the need for strategic facilities. It goes no further than recognising that they may be needed. It says that further work is necessary on the development of resource recovery parks. No work has been undertaken as yet to identify any need for strategic facilities in the region and hence there is no requirement or encouragement in the RSS for such facilities to be identified in LDDs.

8.12 Halton Borough Unitary Development Plan (2005)
The site is allocated in the Halton Borough Unitary Development Plan under Policy RG4 as an Action Area for Runcorn and Weston Dockland and is principally for proposals for freight handling and storage and distribution. The policy states that the following key issues should be addressed, amongst others:

(i) Part of the area should be developed as a rail freight facility;
(ii) Provision should be made for the commercial dock to continue operating;
(iii) Existing rail links should be enhanced;
(iv) Road access should be improved to remove traffic from adjacent residential roads; and
(v) Development should not be a source of noise, dust, odor or pollution that is detrimental to the future regeneration prospects of the area.

8.13 In principle, it is considered that the proposed development would not conflict with this Policy.

8.14 Halton Waste Management Strategy 2004
The Halton Waste Strategy 2004 is currently being updated but at present this is only at the options stage. The 2004 Strategy states that Energy From Waste could play a part in the treatment of residual waste but the exact method of treatment will depend upon local geographical and economic factors, planning regimes etc.

8.15 Cheshire Joint Waste Strategy
The Cheshire Joint Waste Strategy which was considered by this Council's Executive Board in June 2002 pointed out that the Joint Waste Strategy had a number of policy implications for the Council and the principles of the strategy could potentially lead to the support of new waste handling facilities including energy from waste plants.

8.16 The Cheshire Partnership which was part of the consultation process for the review of the strategy recommended in respect of energy from waste facilities that the need for such facilities should be reviewed in 2004 by assessment of recycling rates, monitoring of the growth of household waste and investigation into the development of alternative thermal treatment facilities to incineration. Most importantly the Partnership recommended that if required, the scale and type of any thermal treatment selected would depend upon the expected volume of waste and the most appropriate technology available. The summary of the report in relation to energy from waste made it clear that for Vale Royal landfill will continue to be required. The Executive Board accepted the reports recommendations.

8.17 Currently waste disposal contracts run until 2008 and allow sufficient quantities of waste materials to be taken out of the waste stream to meet recycling targets. However, the view undertaken in the report which the Executive Group approved was that there is uncertainty about the most appropriate technology in the long term. The technologies for thermal treatment of waste are under rapid development and therefore these may present alternative methods of treatment and provide for reduced environmental impact. The Council, in accordance with the report recommendations, have undertaken a programme of assessment, monitoring and investigation with respect to the waste management strategy.

8.18 Although the Borough currently meets it's recycling targets under the current waste strategy this is considered to be for the shorter term and as targets are raised by Europe and Central government the Borough's ability to meet these targets may be stretched. In this respect, although as a Borough we are committed to our own programme of recycling and refuse collection, the proposed facility may represent a much needed facility for the future which should be planned for in advance.

8.19 Need – The need to reduce the Uk's reliance upon landfill as a final destination for waste is identified through policy at European, national and regional levels. At each level, measurable objectives for that reduction are provided with incremental targets set over time.

8.20 It is recognised at a national and regional level that the continuing practice of large scale landfilling of waste is not a sustainable long term solution to waste disposal and recycling schemes are being increasingly encouraged. In the case of waste that cannot be recycled, it is considered that it's use as a fuel material is the next most suitable process. The proposed facility at the Runcorn Site is therefore considered by Ineos to contribute towards meeting the needs and objectives of landfill policy requirements at European, national and regional levels.

8.21 The Runcorn site is a substantial consumer of electricity on a national scale. The proposed plant has the potential to provide one fifth of the total energy needs for the Runcorn site.

8.22 Sustainability – The proposed facility would make a demonstrable contribution toward reducing the amount of non-recyclable waste that is directed towards landfill in the region through provision of an alternative facility for such waste. The facility would have the capacity to consume approximately 750, 000 to 850, 000 tonnes of fuel per year. In addition, the facility would generate energy from waste, thereby significantly contributing to the energy requirements

of the Ineos Runcorn Site and reducing its energy demand from other sources by approximately 20%.

8.23 The proposed facility would be of a sufficient size to take waste from surrounding areas of Manchester, Cheshire, Liverpool and Halton. It would therefore comply with the sustainable concepts of regional self-sufficiency and proximity (i.e. that each region ensures it has the capacity to deal with it's own waste production), at European, National and regional levels.

8.24 Visual & Residential amenity – The site lies within the Runcorn industrial and commercial area. Construction activities would result in large scale changes at the main site. Taking into account the extensive industrial nature of the area, this is likely to result in a minor adverse affect on the appearance and character of the area during the daytime and no significant effect during night-time.

8.25 Once operational, the proposed EfW facility would comprise a range of buildings and structures which would include a 47m high main building and a 105m high stack. Landscape planting is proposed around the site perimeter where this lies adjacent to neighbouring residential and industrial properties. The EfW facility would be large scale and introduce new tall structures into the townscape. However, there are existing buildings on the site of a similar height and an existing stack of the same height which is to be demolished.

8.26 Given the industrial nature of the site and surrounding building it is not considered that either the main building or stack would create any significant visual amenity issues to justify an objection from the Council. There is already a stack of a similar height at the site which will be removed.

8.27 It is proposed that some landscaping will take place in order to enhance the proposed facility but further details will be required for any detailed comments regarding this issue to take place. Landscaping details can be achieved through appropriate conditioning.

8.28 Nature/ Wildlife – appropriate studies have been carried out to analyse the effect that the proposal would have on any features of ecological or nature conservation. Effects arising from the project on the designated habitats and the important wintering birds on the adjacent Mersey Estuary are assessed as negligible.

8.29 No evidence of bats has been uncovered. The project would result in the loss of species of poor semi-improved grassland within the former allotments adjacent to the railway. This habitat is suitable for common species of reptiles, namely slow worm and common lizard and these are assumed to be present but would be transported to a suitable receptor site prior to construction. The significance of the effect on these species is assessed as minor adverse.

8.30 Contamination/ ground conditions – The site is part of the former ICI plant, originally developed in 1896 and redeveloped to the existing workshops in the 1950's. The previous use of the site and surrounding area means that there are sources of potential contamination.

8.31 Detailed assessment of targeted areas will be undertaken to confirm the nature and extent of contamination on site prior to construction. The development of the site provides the opportunity to address any existing contamination. Excavation of contaminated soils and remediation, if required, as part of the project would mitigate existing risks associated with contamination which would result in a moderate beneficial effect.

8.32 Drainage – The site is above the floodzone according to the Environment Agency Flood Map. A drainage assessment has been carried out and a s a result the existing drainage system will be upgraded and where possible rainwater will be collected and reused within the plant.

8.33 Traffic – The transport assessment assumes that all fuel would be delivered to the site by rail and road. The split between rail and road would be determined by the local authorities providing the fuel. Manchester, which is the largest waste authority in the region, has already declared that all its material could be transported by rail.

8.34 The site would be accessed from a new access road that will form a priority junction with Picow Farm Road. This would ensure that no site traffic would need to travel through the Weston Point residential area.

8.35 A traffic assessment of the predicted increase in road traffic generated by the proposed scheme both during construction and operation has concluded that there would be no significant adverse effects on the local highway network.

8.36 The trains associated with the transportation of fuel to the site would re-use an existing rail route that does not pass through any residential or other sensitive area before joining the existing main line at Runcorn Station.

8.37 The County Council's Highways Engineers have reviewed the transport assessment submitted and have no objections to the facilities provided that that further information be submitted relating to traffic movements, particularly HGV's, to and from the proposed EfW facility, within the Cheshire area and specifically the Vale Royal area. To aid the sustainability of the scheme and minimise road trips it is recommended that a legal 106 agreement is undertaken in order to achieve a 'Green Travel Plan' which will reduce the need for road trips and encourage the use of the rail network and waterways which surround the site.

8.38 Noise – A noise assessment has been carried out and baseline information has been obtained from noise surveys carried out at the nearest noise sensitive location, which are residential properties adjacent to the proposed facility. The assessment of noise and vibration effects from construction activities, including traffic, has indicated that no significant effects at any noise sensitive locations are likely to arise.

8.39 The assessment of noise and vibration effects from operational activities, including traffic, has indicated that there would be no significant noise effects from the majority of nearby locations or properties. The assessment indicated that there would be a slight increase in noise during the daytime at properties to the south of the facility. Provision for noise mitigation along the southern boundary of the site has been made within the design proposals to reduce the noise effects within this area.

8.40 Environmental Protection have no objections to the proposal in terms of noise implications.

8.41 Air Quality – During construction, dust effects would be controlled through the Code of Construction Practice developed for the project. The effect on air quality due to the additional emissions from construction traffic is considered to be neutral.

8.42 The proposed EfW facility will be designed to minimise emissions from the stack via an air pollution control system to limits specified within the EU Waste Incineration Directive. Residual emissions will be dispersed from a 105m stack, the height of which was determined as the optimum for the effective dispersion of pollutants taking into account local building heights.

8.43 Emissions for the EfW facility have been assessed through detailed dispersion modelling following the Environment Agency's Good Practice guidelines. The results reported in the assessment indicate that predicted contributions and resultant environmental concentrations of all pollutants considered are well within the relevant air quality objectives and limit values. The dispersion modelling results showed that no significant adverse effects of any of the designated sites are anticipated.

8.44 The Council's Environmental Protection Team have assessed the information and have raised no objections to the proposed development in relation to both noise and air quality issues. The Officers have also advised that these issues will also be considered during the 'Permitting Process' that is governed by the Environment Agency.

8.45 Objections – Helsby Parish Council have objected on the grounds of risk to human health and have submitted a 'Human Health Risk Assessment' in support of their objection which concludes that the report submitted in respect of the proposal is flawed.

8.46 An objection has been received from a resident at Sandfields, Frodsham on the grounds that pollution effects associated with the operation of an incinerator burning waste and traffic impact. However, the proposal is not for an incinerator burning general waste and the transport assessment has concluded that there will be no significant impact upon the highway network.

9 Conclusion

9.1 Although the Council have recently objected to an EFW proposal at Ince Marsh it should be noted that this was a stand alone project without many of the benefits of this proposal. The Runcorn proposal is on brownfield land, within an industrial land and will help Cheshire contribute towards European and central government objectives to reduce the amount of landfill being produced each year. Although the Vale Royal Borough is currently meeting it's recycling targets, Cheshire may not meet it's landfill diversion targets within the current strategy. As such it should be considered that should this opportunity be passed up there would be a need for Cheshire to provide appropriate thermal treatment facilities within its boundaries on suitable sites within the guidelines of the Waste Local Plan.

9.2 The objections received largely relate to the issues of air quality and impact on human health and traffic implication for the Borough. The Council's Environmental Health Officers have raised no objections to the proposed facility and do not consider there to be any significant noise of air quality issues raised by the proposal for the Borough's residents. The County Council's Highways Engineer has advised that more traffic information on a wider geographical area will be required but this can be achieved through suitable conditioning.

9.3 It is therefore considered that the Runcorn EFW facility is capable of providing a high quality EFW facility that will accommodate the re-cycling needs of a large geographical area. The Transport Assessment and Environmental Statement have not identified any significant serious risks for the residents of the Borough and therefore it is recommended that the Committee does not object the proposal subject to the following requirements:

- Further transport information is submitted in relation to HGV movements to and from the facility within the Cheshire and specifically the Vale Royal area;
- A detailed site investigation to determine the level of contamination and any proposed mitigation measures in the form of a contamination and remediation strategy;
- Detailed landscaping scheme;
- The provision of a Green Travel Plan to maximise the use of rail;
- A construction and Environmental Management Plan; and
- An off site ecological mitigation strategy.

For further information:

Officer – Louise Roberts – Planning Officer – 01606867786 – Lroberts@valeroyal.gov.uk

Documents used in the preparation of this report:

- 'Energy from waste Facility' – Environmental Statement, Non-Technical Summary, RPS, January 2007.

Runcorn Energy from Waste Project

Ineos Chlor Limited

Report on behalf of the Director of Public Health, Halton and St Helens Primary Care Trust.

4 June 2007

Report prepared by:

Helen Casstles
Kevin O'Brien
Centre for Public Health
Liverpool John Moores University
Castle House
North Street
Liverpool
L3 2AY

Centre for Public Health

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1.0 Introduction

This report has been prepared on behalf of Ms. F. Johnstone, the Director of Public Health of Halton and St Helens NHS Primary Care Trust (PCT). The report was produced by the Environmental Public Health Team at the Centre for Public Health, Liverpool John Moores University and in collaboration with Dr. A. Stewart from the Health Protection Agency (Consultant in Health Protection, Cheshire and Merseyside Health Protection Unit). The report provides a commentary in response to the planning consultation process and focuses on perceived and potential health effects from a proposed energy from waste plant at Ineos Chlor Limited (Ineos).

Ineos is seeking the consent of the Secretary of State for Trade and Industry at the Department of Trade and Industry (DTI) for the development of an Energy from Waste plant (EfW) on land at the Ineos Runcorn Site chemical manufacturing complex in Cheshire. The project would accept fuel derived from municipal waste to generate electricity and steam, which would be used within the Runcorn Site. The application is an outline of the proposed development and further information will be submitted should the application proceed to the next stage of the planning process.

Due to the relatively short time available to comment on the proposals before the end of the consultation period and limited resources, the aim of this report is to provide the DTI with information it would otherwise not have with regard to public health, in order to assist in the decision making process regarding the suitability of this energy from waste plant at this location.

The report is evidence based and draws on authoritative documents from appropriate agencies, such as the Health Protection Agency and on the information provided by the applicant. It assumes that any development is appropriately regulated under existing legislation designed to protect the environment and human health. Should the application be successful, a permit to operate will be required under the Pollution, Prevention and Control Regulations 2000; this is granted by the Environment Agency and a detailed application will be sent to the PCT for consultation. This provides opportunity to comment on the specific emissions to land, air and water and their potential impacts on health. This outline planning application does not provide sufficient detail to comment at this level of detail.

2.0 Key public health issues

Energy from waste can be considered a form of renewable energy and this development has the potential to reduce green house gas emissions for a variety of reasons. The development has the potential to create jobs, during the construction and operational phases of the development, in an area with considerable unemployment and regenerate a derelict area located within one of the council's action areas for regeneration. The construction phase of the development has potential to be quite disruptive, in terms of noise and traffic movements, these will however be mitigated through appropriate planning conditions.

Epidemiological studies and risk assessments based on estimated exposures, indicate that the emissions from modern incinerators have little effect on health. The proposed development will be regulated to ensure compliance with all appropriate legislation and the Primary Care Trust will have opportunity to comment on specific operational issues and emissions through the pollution permitting regime.

As the development is to be located in a local authority whose population has significantly higher than average levels of poor health, including respiratory disease, we would like to make the following specific comments:

- The applicant does not identify any significant concerns regarding particulate emissions from the process or their impact on human health in the surrounding area and, without any operational data, these assertions are not able to be reviewed. The Committee for the Medical Effects of Air Pollution[1] have recently concluded that as there are clear associations between both daily and long-term average concentrations of air pollutants, in particular fine particles and effects on the cardiovascular system, a precautionary approach should be adopted in future planning.
- We have a specific concern related to the transport of fly ash and flue gas treatment residues from Weston Point to Randle Island landfill site; this will result in twenty heavy goods' vehicle movements per day. If this hazardous waste is in the form of a dry dust, there is potential for it to become airborne which could result in significant depositions of dioxins, furans and metals at a local level.

[1] http://www.advisorybodies.doh.gov.uk/comeap/statementsreports/CardioDisease.pdf (accessed 17 May 2007)

Existing evidence suggests that contemporary incineration facilities are less polluting and that modern abatement technology will help reduce the hazard from emissions provided that the facilities are properly operated at all times.

3.0 Recommendations

3.1 That the DTI consider requiring the applicant to quantify the effects of the additional particulate air pollution generated from this proposal on health of residents of Halton to inform the planning process.

3.2 If planning permission is granted, that the DTI require a Health Impact Assessment to be commissioned by the applicant. It is expected that this will be carried out by independent and experienced practitioners. The scope of the Health Impact Assessment should be agreed by the Director of Public Health and engage the local community.

3.3 That appropriate control measures are put into place to ensure that the local population are not exposed hazardous waste in the form of a dry dust during transportation to landfill. We would wish to be assured that the risk is controlled appropriately.

4.0 Technical summary of proposed development

There are four distinct parts to consider related to the proposed development: construction, operation, associated issues and remediation of the site when operations cease.

4.1 Construction

It is understood that the construction of the EfW plant would necessitate the re-siting of the Ineos Weston Workshops to create the space for the main facility and this phase of the works would take approximately fourteen months. The construction of the main facility would take approximately three and a half years. Normal construction hours of 07.00 – 19.00 hrs for five days per week would be extended to include nights and weekends during critical phases such as cement pouring. The resulting structures would include 47m, 40m and 22m high buildings and a 105m high stack.

At the peak of the construction phase, the application estimates that there will be 930 car movements and 400 heavy goods vehicle (HGV) movements in addition to the normal vehicle movements in the area.

4.2 Operation

Once operational, the site will run for 24 hours per day burning treated municipal waste in a continuous process. The plant will be capable of burning more than 2250 tonnes of refuse derived fuel (RDF), i.e. not untreated waste, per day creating up to 1000 tonnes of ash and waste gas treatment residue per day. The energy will be captured from the heat in the flue gases and the electrical output generated from the resulting high pressure steam is expected to be 100MW with 140,000 tonnes per hour of medium pressure steam for use on the Ineos site.

The EfW plant will burn up to 850,000 tonnes of RDF per annum. At full capacity the plant will require all of the waste produced by Manchester, Merseyside and Cheshire including Halton and Warrington to maintain its energy output. The RDF will be transported by rail or road and there is a possibility that some waste will be delivered by barges utilising the Manchester Ship Canal. RDF would be discharged into a fuel bunker in an enclosed tipping hall.

The EfW plant will burn up to 100 tonnes of RDF per hour in a continuous process. The fuel will be fed directly into the incinerator from the fuel bunker and will be

burned in a combustion chamber. The hot flue gases will be maintained at 850°C for two seconds residence time in accordance with the Waste Incineration Directive. Air supply to the boilers will be taken from the fuel bunker to reduce the risk of dust and odours escaping from the bunker and tipping hall. The flue gases would then pass over an evaporator, a superheater and an economiser which would cool the gas stream and produce steam. The process would, at full capacity, produce up to 220,000 tonnes of bottom ash per year which would be stored on site in silos prior to removal.

The flue gases from the process would be treated prior to discharge into the atmosphere. Ammonia water will be injected into the boiler to assist in the catalytic reduction of nitrogen oxide in the flue gases. Further treatment would include the injection of hydrated lime and activated charcoal into the gas stream to neutralise acidity and to absorb any contaminants. Particulate removal would be achieved using bag filters. The process would, at full capacity, produce up to 120,000 tonnes of fly ash and 35,000 tonnes of flue gas treatment residues per year which would be stored on site in silos prior to removal.

4.3 Associated activities

The fly ash and flue treatment residues are classed as hazardous wastes and will be sent to the Ineos owned hazardous waste landfill site at Randle Island. The bottom ash resulting from the burning of RDF is considered by the applicant to be non-hazardous and will be sold as a building material or road aggregate; any unsold bottom ash will be sent to landfill.

The application provides information on the heavy goods' vehicle (HGV) road movements likely to be generated by the operation of the EfW plant. The total daily estimated HGV movements are given as 384 derived from assumptions of annual deliveries by road of 480,000 tonnes of RDF and deliveries of flue gas treatment chemicals and other products related to the process. The figure also assumes the removal of 220,000 tonnes of bottom ash, and 7,200 tonnes and 31,700 tonnes of fly ash and reaction products (flue gas treatment products) respectively.

4.4 Site closure

The remediation and restoration of the land at the end of the working life of the EfW facility will be dealt with in the IPPC application should the planning consent be given.

5.0 Health profile

Halton local authority is a Spearhead local authority (LA); this means that it is in the bottom fifth nationally for three or more of the following 5 indicators:

1. Male life expectancy at birth
2. Female life expectancy at birth
3. Cancer mortality rate in under 75s
4. Cardio Vascular Disease mortality rate in under 75s
5. Index of Multiple Deprivation 2004 (Local Authority Summary), average score

The Government has set a Public Service Agreement target to address geographical inequalities in life expectancy, cancer, heart disease, stroke and related diseases. The expectation of government is that there will be faster progress to address these health inequalities in the Spearhead LAs compared to the 'average' LAs.

The community health profile for Halton in 2006[2] comprises a number of indicators demonstrating the health of the population in comparison with both regional and national levels. Within Halton, 22 of these indicators are significantly worse than the national average, for example life expectancy and early deaths from cancer and heart disease.

Table 1 illustrates a number of health indicators for Halton and whether they are high, average or low compared to regional or national figures. Further details regarding health indicators are appended (appendix 1) and the results of the recent Lifestyle Survey for Halton are included in appendix 2.

[2] http://www.communityhealthprofiles.info/ (accessed 14 May 2007)

Table 1: Health indicators

Indicator	Halton LA
Life expectancy **(compared to national)**	LOWER
Deprivation **(compared to national)**	HIGHER
Deaths and hospital admissions (13 indicators – compared to North West Average)	
Deaths from all causes	HIGHER
Deaths from circulatory disease (Heart Disease/Stroke)	HIGHER
Deaths from cancer	HIGHER
Elective (pre-planned) admissions to hospital	HIGHER
Emergency admissions to hospital	HIGHER
Hospital admissions for road traffic accidents	HIGHER
Hospital admissions for stroke	AVERAGE
Hospital admissions for acute respiratory conditions	HIGHER
Hospital admissions for cardiovascular conditions	HIGHER
Hospital admissions where asthma was a factor	HIGHER
Hospital admissions where Chronic Obstructive Pulmonary Disease (COPD) was a factor	HIGHER
Hospital admissions where lung cancer was a factor	HIGHER
Hospital admissions where a mental health condition was a factor	HIGHER
Perception of General Health – (compared to national average)	
Percentage of people having a long-term limiting illness	HIGHER
Feeling "in poor health"	HIGHER
Lifestyle – (compared to national average)	
Smoking	AVERAGE
Obesity	AVERAGE
Alcohol (binge drinking)	HIGHER
Healthy eating	LOWER

LOWER = statistically significantly lower
HIGHER = statistically significantly higher
AVERAGE = not statistically significantly different to the average

6.0 Regeneration

The quality of life for many of Halton's residents is below average when measured against many social and economic indicators. Halton has a population of approximately 118,000 people and deprivation is relatively high.

Despite the considerable investment in Runcorn during the 1960's and 70's when it was developed as a New Town and considerable success in Widnes in reclaiming derelict land in the 1970's and 1980's, the area has not enjoyed the levels of investment and prosperity that have benefited other areas of the UK in recent decades. This has resulted in higher levels of social deprivation and unemployment than elsewhere. One of the greatest challenges for the Council is to implement policies and proposals that will reverse population decline through an holistic approach to economic, social and environmental regeneration. The success of this will depend in large part on an increase in investment confidence in the Borough and region as a whole.

A Regeneration Strategy for Halton was approved in 1998. It was prepared in a partnership between the Council and the Halton Partnership. The purpose of the Strategy is as follows:

- to build on the strengths and embrace opportunities;
- to drive forward the regeneration of the Borough;
- to create a thriving area in which people will want to live, work, and invest; and
- to revitalise Halton.

The strategy identified both areas and themes for regeneration. In 1999 the Council adopted an Economic Development Strategy as one of the key corporate strategies developed by the Council. It sets out a series of key challenges and specific critical actions, which need to be considered. The challenge to 'enhance the Borough's economic infrastructure' is addressed by the Unitary Development Plan (UDP) by the provision of a portfolio of sites and premises to meet the needs of local businesses and potential inward investors.

One of the strategic aims of the Council is to transform the quality of Halton's environment and improve economic prosperity and social progress through sustainable development, thereby enhancing the health of the population. In

particular, Action Areas have been identified that require comprehensive development or redevelopment in order to achieve regeneration within the Borough. Each Action Area has particular problems to be overcome and opportunities to be taken.

The Ineos proposal lies within the Runcorn and Weston Docks Action Area. This is predominantly an area of employment uses and includes commercial docks, general industry, storage and distribution uses, along with a large amount of derelict and underused land. The legacy of previous uses includes large worn out buildings with few services, and large areas of derelict land. Road access is poor, with a history of conflict between heavy goods traffic and local residents. The general image and appearance of the area is poor. There is an opportunity to reverse this decline and build upon the strengths of the area for the handling and storage of freight, and the location of the area on the Manchester Ship Canal and with links to the West Coast Main Line. The redevelopment of the area for employment uses will provide much needed employment for Halton.

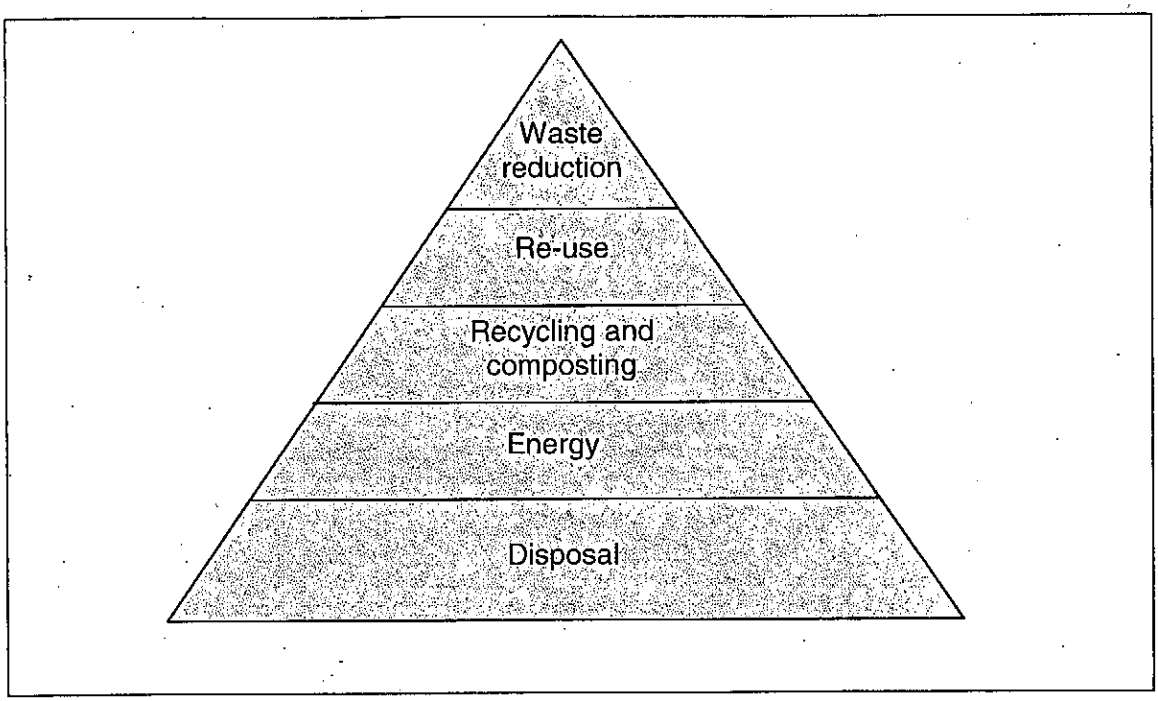
7.0 Waste disposal

Local councils are required by law to collect municipal waste. In the UK, the most common method of dealing with this waste is through disposal in suitably designed landfill sites. However, this dependence on landfill sites is being tested by a growing scarcity of suitable land and a European Union Directive on Landfill (EU Landfill Directive 99/31/EC), which focuses on reducing this practice. The EU Landfill Directive has been adopted into UK national law under what is known as the Waste Strategy 2000. It is influenced by the need to deliver more sustainable development – decision makers must strike a balance between continued economic development and the need to protect and enhance the environment. There is increasing disquiet concerning the health effects of landfill, in addition to the longer-term global effects of methane contributions to climate change.

Under the Waste Strategy 2000[3], a number of waste management options have been devised to reduce the amount of waste that needs to be disposed of at landfill. These options have been set out in the form of a 'Waste Hierarchy', where the aim is to move further up the hierarchy and away from disposal. The waste strategy supports the generation of energy from waste.

[3] http://www.defra.gov.uk/Environment/waste/strategy/cm4693/index.htm (accessed 10 May 2007)

Figure 1: Hierarchy of Waste



The Waste Strategy reflects the Government's sustainable development strategy which has the following four overarching aims:

1. social progress which meets the needs of everyone;
2. effective protection of the environment;
3. prudent use of natural resources; and
4. maintenance of high and stable levels of growth and employment.

In England 9% of municipal waste is currently incinerated. The capacity of incinerators and the number of incinerators are increasing; there are currently seventeen municipal incinerators operating in England and Wales. By comparison, the European average for incineration of municipal waste is 17.3 %, with Denmark incinerating 56% of its municipal waste[4].

7.1 Energy from Waste

Whilst a reduction in waste generation is clearly the best environmental option, waste combustion with energy recovery is an established way to dispose of waste. As no new fuel sources are used, other than the waste that would otherwise be sent to

[4] www.environment-agency.gov.uk/yourenv/eff/1190084/resources_waste/213982/203410/?version=1&lang=_e (accessed 10 May 2007)

landfills, energy from waste is often considered a renewable power source[5]. It decreases the volume of the waste and allows for recovery of metals and other potentially recyclable elements. The heat recovered can be used to generate electricity, or can be used for industrial heat applications. Power is produced by using the steam raised in the combustion process to drive a steam turbine to generate electricity, in a similar manner to a conventional coal fired power station. The application from Ineos purports that 20% of their substantial energy requirements will be from the new plant.

8.0 Air Quality Management

Local authorities have statutory duties for local air quality management (LAQM) under the Environment Act 1995. They are required to carry out regular reviews and assessments of air quality in their area against standards and objectives in the National Air Quality Strategy (AQS). Where it is found these are unlikely to be met, authorities must designate air quality management areas (AQMAs) and prepare and implement remedial action plans to tackle the problem. The objectives for air pollution are concentrations over a given time period that are considered to be acceptable in the light of what is known about the effects of each pollutant on health and on the environment.

The pollutants for which there is an air quality standard are:

- benzene
- 1, 3-butadiene
- carbon monoxide
- lead
- nitrogen dioxide
- oxides of nitrogen
- ozone
- particles (PM_{10})
- sulphur dioxide

The Environment Agency[6] report that emissions to air from major industrial sites in the North West have reduced substantially over recent years; however air quality,

[5] US Environment Protection Agency www.epa.gov/cleanenergy/muni.htm (accessed 10 May 2007)
[6] http://www.environment-agency.gov.uk/commondata/acrobat/nwenv_summary_1473612.pdf (accessed 10 May 2007)

particularly in the region's cities, is adversely affected by road traffic. Traffic in the region has increased by 20% in the last ten years and almost three million cars travel on the North West's roads. Industrial emissions to air from Environment Agency regulated premises in the North West have decreased significantly. Of the eight key air pollutants prioritised by the government, only carbon monoxide emissions are higher now than in 1998.

8.1 Local air quality

Halton Borough Council has assessed local air quality and has not declared any AQMAs. The air quality in Halton has been improving year on year. An update of local air quality conducted by Halton BC in 2006[7] considered emissions from a range of sources (transport, industry and domestic) that could potentially affect local air quality. It concluded that air quality objectives for carbon monoxide, benzene, 1,3-butadiene, lead, sulphur dioxide and particulate matter PM_{10} had been achieved. Whilst background levels of nitrogen dioxide across the Borough met the standards there are two locations in Widnes where the results of a diffusion tube survey indicate that the objectives for NO_2 are being exceeded.

There have been no considerable changes to industrial processes since the previous round of review and assessment and no major changes to the road network in Halton. The impact of new developments proposed for the Borough at the time of the survey were also considered and no adverse effect on air quality is predicted as a result of these developments.

9.0 Potential health effects from energy from waste plant

Recent work by the authors included a search of the scientific literature to identify the best available evidence from reputable sources for perceived and potential health impacts from the installation[8].

It should be noted that there is a hierarchy of evidence and where available, systematic reviews are considered to be the gold standard of scientific evidence on which to base decisions. There are a number of published papers which claim to provide evidence on the health effects of incineration, some published in peer

[7] http://www2.halton.gov.uk/pdfs/environment/environmentalhealth/airquality2006 (accessed 10 May 2007

[8] http://www.wcheshirepct.nhs.uk/default.asp?page=news/default.asp&action=story&ID=144 (accessed 14 May 2007)

reviewed scientific journals and others published by special interest (campaign) groups. Some of these papers do not stand up to rigorous scrutiny; both the Health Protection Agency and Enviros Consulting Ltd (on behalf of Surrey County Council) have published authoritative responses to one such paper that has been circulated widely during the last year, all of which can be viewed online[9].

In reviewing the evidence on incineration, one factor that needs to be taken into account is that the majority of the studies, and any associated environmental data, originate from incineration facilities whose emission profile was significantly different from today's modern incinerators. Up until the mid-1990's, incinerators in the UK were fitted with rudimentary emission controls and therefore emitted quite significant amounts of air pollutants. Newly constructed incinerator plants have to meet much stricter controls on emissions and are significantly cleaner.

It should also be noted that a lack of evidence of adverse health effects of energy from waste plant might be due to the limitations regarding the available data. If no evidence is identified for a perceived health impact, this does not necessarily mean that there will be no effect, only that no robust evidence can be found at this point in time to establish a cause and effect relationship between exposure and a health impact. There are often confounding factors such as socio-economic variables, exposure to other emissions, population variables and spatial/temporal issues to be taken into consideration.

The Health Protection Agency, in their position statement on Municipal Solid Waste Incineration,[10] conclude that incinerators emit pollutants into the environment but provided they comply with modern regulatory requirements, such as the Waste Incineration Directive, they should contribute little to the concentrations of monitored pollutants in ambient air. Epidemiological studies, and risk estimates based on estimated exposures, indicate that the emissions from such incinerators have little effect on health.

[9] http://www.ecomed.org.uk/pub_waste.php accessed (14 May 2007)
[10] Health Protection Agency (2005) Municipal Solid Waste Incineration http://www.hpa.org.uk/chemicals/incineration.htm (accessed 10 May 2007)

The Department for the Environment, Food and Rural Affairs (DEFRA) commissioned a review of the effects of waste management[11], which was peer reviewed by the Royal Society. Cancer, respiratory disease and birth defects were all considered, and no evidence was found for a link between the incidence of the disease and the current generation of incinerators. It concluded that although the information is incomplete and not ideal, the weight of evidence from studies so far indicate that the present day practice for managing solid municipal waste has, at most, a minor effect on health and the environment, particularly when compared to other everyday activities.

The Committee on Carcinogenicity of Chemicals in Food, Consumer Products and the Environment (2000)[12] concluded that any potential risk of cancer due to residency (for periods in excess of ten years) near to municipal solid waste incinerators was exceedingly low and probably not measurable by the most modern techniques.

Evidence has begun to emerge that congenital malformations may be associated with environmental pollution[13]. Whilst most studies have focused on hazardous landfill sites, there has been speculation that increased rates of congenital malformations are linked with exposure to dioxins and furans. However, predicted emissions from the proposed EfW plant will be regulated and will need to comply with limits set by the Environment Agency and intended to protect the environment and health.

Dioxins and furans are emitted during the process of incineration. Abatement processes using the 'Best Available Technique' will be used to reduce these to permissible levels. Although it is theoretically possible that people who consume local produce may be exposed to dioxins, predicted levels of dioxin emissions from the plant are unlikely to increase the human body burden appreciably.

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[11] Department for Environment, Food and Rural Affairs (2004) Research: review of the environmental and health effects of waste management www.defra.gov.uk/environment/waste/research/health/ (accessed 10 May 2007)

[12] Committee on Carcinogenicity of Chemicals in Food, Consumer Products and the Environment (2000) Cancer incidence near municipal solid waste incinerators in Great Britain COC statement COC/00/S1 www.advisorybodies.doh.gov.uk/coc/munipwst.htm (accessed 10 May 2007)

[13] Environment Agency (2005) Health Impact Assessment of Waste Management: Methodological Aspects and Information Sources. Science Report P6-011/1/SR1

Whilst there is some epidemiological evidence that air pollution (specifically traffic emissions) may provoke acute asthma attacks or aggravate existing chronic asthma the effect, if any, is generally small and the effect of air pollution appears to be relatively unimportant when compared with several other factors (e.g. infections and allergens) known to provoke asthma[14]. There is currently little convincing evidence that ambient levels of air pollution can cause acute adverse health effects in healthy people; furthermore the air quality standards are set at a level designed to protect the health of vulnerable people, i.e. they take into consideration that not all of the population are well.

The Committee on Medical Effects of Air Pollutants conclude that clear associations have been reported between both daily and long-term average concentrations of air pollutants and effects on the cardiovascular system, reflected by a variety of outcome measures including risk of death and of hospital admissions. They recommend that as these associations may be causal, then a precautionary approach should be adopted in future planning. They could not be certain which components of the ambient pollution mixture are responsible for these effects but it is likely that fine particles play an important part[15].

10.0 Conclusion

This report provides a commentary on the known evidence regarding the proposed development and its potential effect on health. In particular, it has considered issues which are material considerations during the planning process and is based on information submitted by the applicant. Should the development receive planning permission, the applicant will be required to submit a detailed pollution, prevention and control permit application which will be forwarded to the Primary Care Trust to make comment on specific emissions and their potential effects on health.

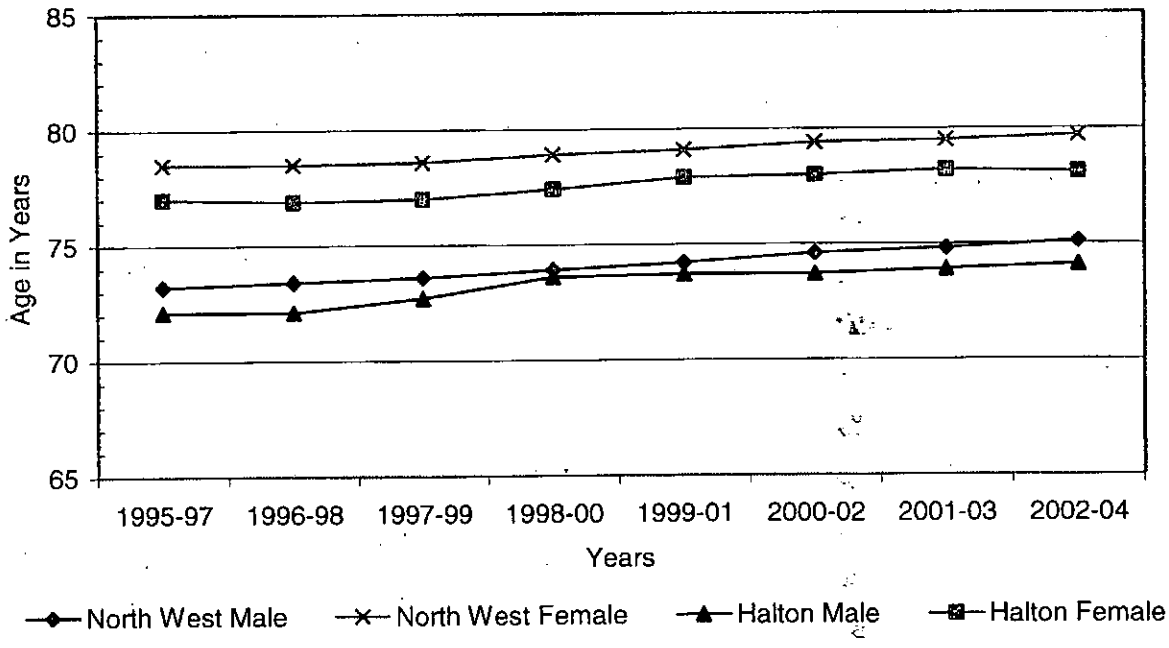
14 Committee on the Medical Effects of Air Pollutants (1995)*Asthma and Outdoor Air Pollution* www.advisorybodies.doh.gov.uk/comeap/statementsreports/airpol2.htm (accessed 10 May 2007)

15 http://www.advisorybodies.doh.gov.uk/comeap/statementsreports/CardioDisease.pdf (accessed 17 May 2007)

Appendix 1: Health indicators

Life expectancy in Halton, at 74.1 years for men and women 78.1 years, is lower than the regional (75.1 for men and 79.7 for women) and national average (76.5 for men and 80.9 for women). Within Halton there is a gap in life expectancy of 6.4 years between the poorest and the most affluent areas (the largest gap nationally being 10.1 years and the smallest 2.7). Over the period 1995 to 2004, life expectancy at birth has been increasing at a similar rate to the regional increase. Figure 2 compares the trends in life expectancy at birth for men and women in Halton, with life expectancy for men and women in the northwest region.

Figure 2: Male and female life expectancy in Halton, 1995-2004
(direct age-standardised rates, three-year rolling average).



For Halton local authority, all but one of the death and hospital admission health indicators were worse than the regional average, as shown in table 2.

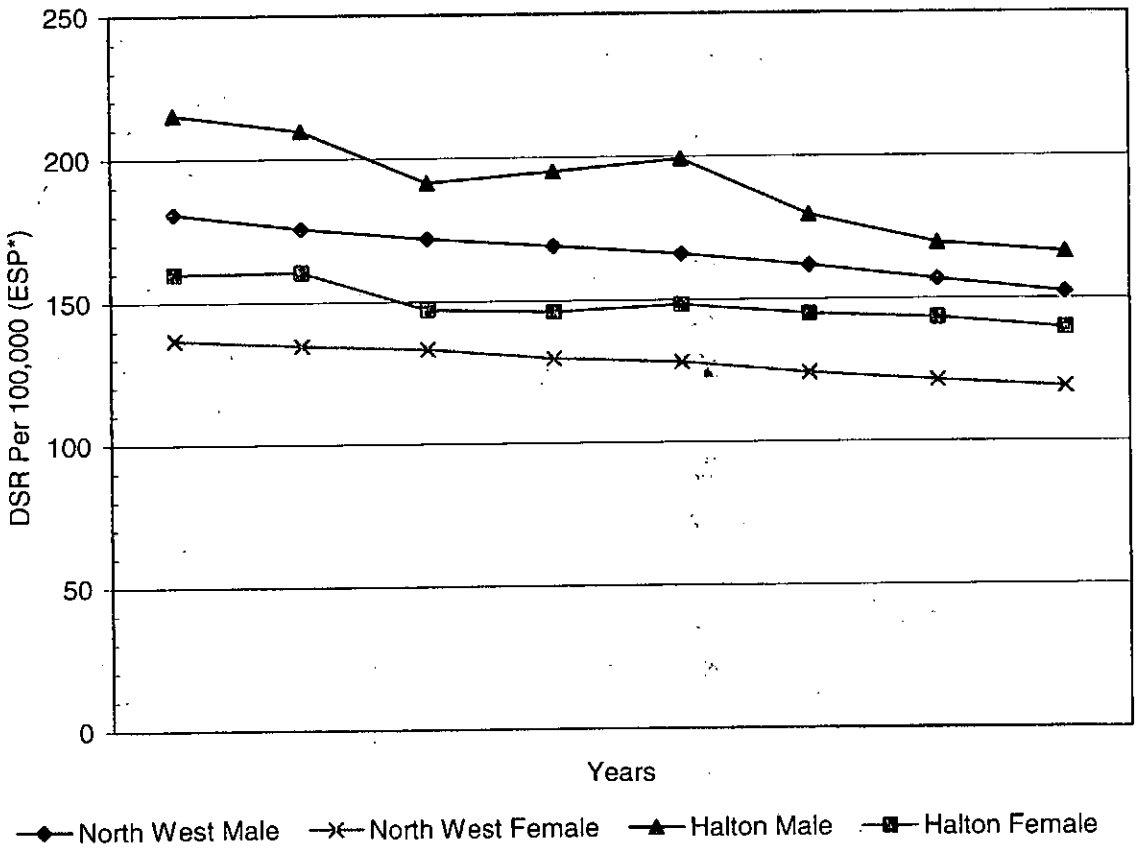
Table 2: Selected health indicators for Halton Local Authority with 95% confidence intervals (regional average = 100) 1998/99 to 2002/03

Selected Health Indicators	Halton		
	Ratio	LCI*	UCI*
All Elective Admissions t*	**106.7**	**105.8**	**107.6**
All Emergency Admissions i*	**119.9**	**118.8**	**121.0**
Stroke i*	102.6	96.1	109.4
Acute Respiratory Conditions i*	**133.1**	**128.2**	**138.2**
Cardiovascular Conditions i*	**116.9**	**114.0**	**119.9**
Road Traffic Accidents i*	**117.2**	**108.3**	**126.7**
Asthma p*	**171.3**	**167.5**	**175.3**
Chronic Obstructive Pulmonary Disease p*	**160.3**	**155.6**	**165.2**
Lung Cancer p*	**117.7**	**108.5**	**127.5**
Mental Health Conditions p*	**143.6**	**138.8**	**148.7**
All Causes Mortality	**122.2**	**119.1**	**125.3**
Circulatory Disease Mortality	**117.7**	**112.9**	**122.7**
Cancers Mortality	**123.7**	**117.8**	**129.8**

Indicators in bold are statistically different from NW Region
* i = Hospital Incidence p = Hospital Prevalence t = Hospital Treatment
LCI / UCI = Lower / Upper Confidence Intervals

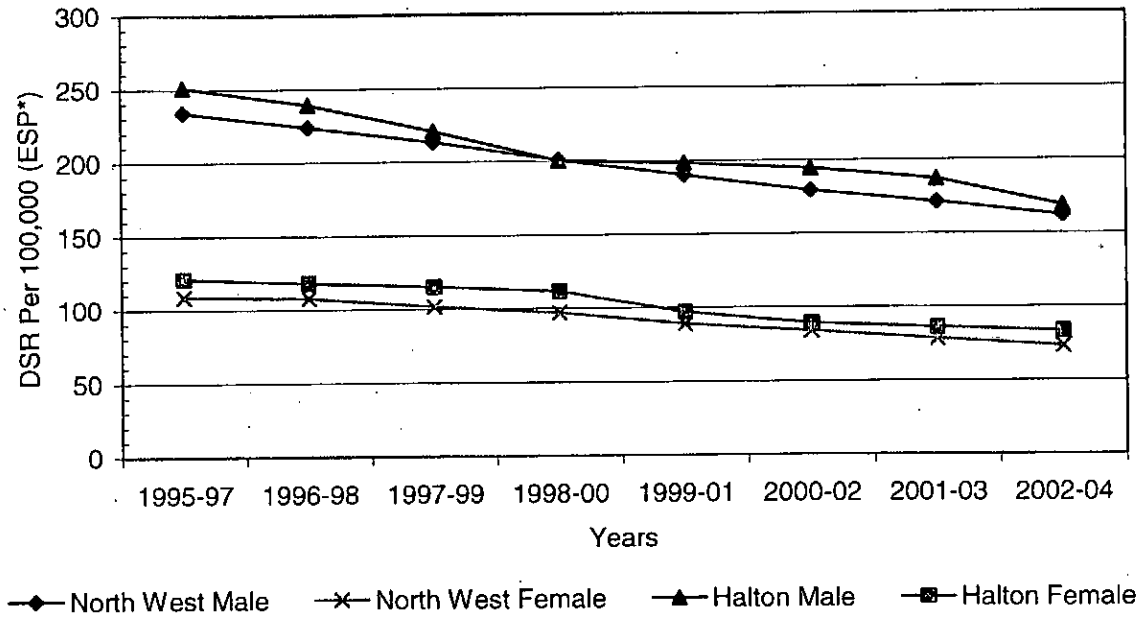
Deaths from cancer in both men and women aged under 75 years were above the regional average between 1995 and 2004, however, the rates are decreasing in line with the regional average. In men, in particular, the rate has declined by 23% between 1995 and 2004. Deaths from circulatory disease aged under 75 years were slightly above the regional average, although the rate has declined by around a third between 1995 and 2004. Figures 3 and 4 compare the trends in deaths for men and women under 75 years due to cancer and circulatory disease with those for the northwest region.

Figure 3: Deaths from cancer for men and women under 75 years of age in Halton, 1995-2004 (direct age-standardised rates, three-year rolling average).



ESP: European Standard Population

Figure 4: Deaths from circulatory diseases for men and women under 75 years of age in Halton, 1995-2004 (direct age-standardised rates, three-year rolling average).



ESP: European Standard Population

Appendix 2: Lifestyle survey

Health and lifestyle surveys are an established method of gathering information; the results are used to inform health promotion activities and Health Improvement Plans and are a useful tool to address health inequalities.

During 2006, a Health, Lifestyle and Community Survey was commissioned by Halton PCT to better understand local health needs and health-related behaviours within Halton. Survey respondents were asked to indicate how their health had been on the whole in the past 12 months. Overall, 71.6% of residents reported their health to be 'good', 'very good' or excellent'. A higher proportion of males reported 'good' health; 73.6% compared with 69.6% percent of females. As may be expected the percentage reporting good health decreased with age.

Overall, 25.6% of Halton residents responded that they currently smoke; this suggests that there are approximately 24,500 adult smokers in the borough. These figures suggest a reduction in smoking prevalence within Halton since 2001, when prevalence was estimated to be 29.2%. As in 2001, current estimates suggest that there is a slightly higher proportion of male smokers overall, 26.1% compared with 25% of females.

The percentage of overweight residents has increased from 52% in 2001 to 56.6% in 2006. A prevalence of almost 57% suggests that approximately 54,200 adults in Halton are overweight. Obesity within Halton has also increased quite substantially since 2001; with 20.2% of residents currently measuring as obese, this compares with 15.1% at the time of the last survey.

Overall, 17.5% of Halton respondents indicated that they drank more units per week than considered safe under national guidelines. This represents an increase on the 2001 figure of 15.7%. Whilst a greater proportion of males drink to unsafe levels, (22.5% compared with 12.4% of females), the proportion of women drinking unsafely has increased considerably from the 6.9% figure reported in 2001, whereas the proportion of males drinking unsafely has decreased from 24.8% in 2001.

Almost 80% of Halton residents indicated that they ate less than the recommended 5 portions of fruit and/or vegetables a day. Overall, 17.8% of residents indicated that they had a poor diet, however this is an improvement on previous results, which indicated that 21% of residents consumed an unhealthy diet.

46.6% of respondents indicated that they lead a sedentary lifestyle, whilst this is a high proportion of residents who are not getting the health promoting benefits of vigorous exercise; figures have improved since 2001, when 51% of residents undertook no regular vigorous exercise. As may be expected, exercise levels decrease with age; 72% of those in the 65+ age band lead a sedentary lifestyle. Males are generally more active than females, with 42% of all men reporting no vigorous exercise, compared with 51% of women.

Acknowledgments

Colleagues from the Centre for Public Health, in particular Clare Perkins

Halton & St Helens Primary Care Trust

Halton Borough Council (Environmental Health, Enforcement and Building Control)

32 Clifton Road
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Cheshire
WA7 4SZ

21 February 2007

Mr Phil Watts
Halton Borough Council
Planning & Policy Division
Environment & Regulatory Services
Rutland House
Halton Lea
Runcorn
Cheshire WA7 2GW

Dear Mr Watts,

Planning Application Number: 07/00068/ELC

I wish to object to the proposal 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.

I am very concerned about the potential impact on residents of Halton. My main concerns are the risks to the health of people living in Halton caused by the emissions from the power station and the impact of the construction activity on the congested local highway network and the people living near the site.

I will examine how this proposal for dealing with waste conforms to the Merseyside policy on waste disposal, as Halton is now linked to the Merseyside councils for this function. The report on waste planning submitted to Halton Council's Executive Board on 25th January 2007, identified four aims of the Merseyside Joint Waste Development Plan Document namely:

1. To reduce the amount of waste generated and move waste management away from landfill disposal;
2. To encourage the people and business communities of Merseyside to take responsibility for their own waste by sufficient and timely provision of waste management facilities that meet the needs of the community and reduce the need for waste to travel unnecessary distances for disposal;
3. To minimise any negative impacts from waste management on the people and communities and environment of Merseyside;
4. To act as a catalyst for creating wealth and employment opportunities through the transformation of waste to resources.

Reducing the amount of waste generated and move waste management away from landfill disposal

I am aware of the lack of landfill capacity, but believe the recycling of items such as paper, wood and plastics is preferable to burning them. Barbara Young, the Environment Agency's Chief Executive has said 'Waste from energy is being over-egged. Black bag burning must not happen. Unsorted waste burning must not be part of the waste strategy. We are very unhappy about any solution that sees energy from waste as a big, simple turnkey solution that is easier than waste minimisation and recycling.' (New Civil Engineer 2 March 2006.)

Furthermore, incineration will significantly increase the carbon dioxide in the atmosphere with all its implications for attendant global warming and climate change.

Encouraging the people and business communities of Merseyside to take responsibility for their own waste by sufficient and timely provision of waste management facilities that meet the needs of the community and reduce the need for waste to travel unnecessary distances for disposal

I believe communities should take responsibility for their own waste by sufficient and timely provision of waste management facilities that meet their needs and reduce the need for waste to travel. This proposal will involve bringing waste from outside the Borough and runs counter to this objective. Although it is proposed to import a substantial proportion of the waste by rail or canal, much of the waste is likely to be delivered by road. This will impose further congestion especially on the Silver Jubilee Bridge and junction 12 on the M56.

The transport assessment concludes that '*the traffic generated by the proposal would have no significant adverse effects on the local highway network*'.

During construction, there would be a maximum of 465 vehicles arriving and departing from the parking areas and a maximum of 400 heavy vehicle movements per day. I do not know the location of the car parks, but drivers from outside Runcorn are likely to use either the Silver Jubilee Bridge or Junction 12 of the M56 motorway. There are long queues on both routes extending beyond the traditional peak hours and traffic flows of this volume are likely to have a significant impact. During the operational period, there would be approximately 400 heavy vehicle movements per day, which would rise to a higher level if the planned 10 train movements bringing waste do not materialise. Unless the Mersey Gateway project is implemented as planned, existing congestion would increase significantly during the operational period.

Minimising any negative impacts from waste management on the people and communities and environment of Merseyside

It is essential that any negative impacts from waste management on the people and communities and environment are minimised. This proposal will cause health damage in a borough that has enough of these problems already. The suggested location could not be worse. This is a site at near sea level adjacent to a hill with prevailing winds in a westerly direction to provide the maximum fallout over the whole of Runcorn. A 105m high unsightly chimney will be constructed to disperse the toxic fumes from the incinerator but they will fall on Runcorn and Widnes increasing the risk of cancers and respiratory illness. These towns already suffer from a high level of lung cancer and respiratory diseases. Household waste is an inefficient fuel as it is so variable in content and the optimum burning temperature which reduces the airborne toxins is harder to achieve. The nature of the feedstock will almost certainly mean that it will contain chlorocompounds and toxic metals from time to time leading to dioxins and heavy metal fallout with the consequential health implications.

During construction it is anticipated that workers would arrive before 7am and leave after 7pm. There would also be continuous 24 hour working during the concrete works. The construction and traffic noise over such a long period must have a negative impact on people living near the site.

Furthermore, although construction workers traditionally work long hours, one of the causes of construction accidents is worker fatigue. The Construction (Design and Management) Regulations, which were introduced because of the high accident rate in the construction industry, stress the need to reduce health and safety risks in the planning stage. I consider that the designers are not complying with the spirit of the Regulations if the project is planned so that the workforce needs to work hours well in excess of the Working Time Directive.

Acting as a catalyst for creating wealth and employment opportunities through the transformation of waste to resources

The massive gas-fired power station at Rocksavage was constructed to provide cheap electricity for the chemical industry in Runcorn. Due to what may be a temporary rise in gas prices, local people are now being asked to accept another incinerator with a building up to 47m high on their doorstep, which will only provide 20% of the Runcorn site's requirements. This will not act as a catalyst for creating wealth and employment opportunities through the transformation of waste to resources. It is more likely to deter the high quality business and science facilities we now see coming to the Heath Technical Park and Daresbury Science Park.

I urge the Council to oppose this waste incinerator proposal due to the potential impact on the health of local people, the traffic congestion it will create, especially during construction, and because it runs counter to the principles of the draft Merseyside Joint Waste Development Plan Document.

Yours sincerely

Mike Hodgkinson
Heath Ward councillor