REPORT TO: Special Development Control Committee

DATE: 31st July 2007

REPORTING OFFICER: Strategic Director - Environment

SUBJECT: Consultation in respect of 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.

The following consultation is submitted to the Special meeting of the Development Control Committee for consideration with a recommendation.

PLAN NUMBER: 07/00068/ELC

APPLICANT: INEOS Chlor

CONSULTATION/ DESCRIPTION OF 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

ADDRESS OF SITE: Land off Picow Farm Road at INEOS Chlor

WARD: of Borough wide interest

INTRODUCTION

This report relates to a consultation received from the Department 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.

The Borough Council is not the only consultee, but clearly has a significant responsibility as the host Authority for the proposed facility. The response of the Authority will be considered along with all other representations received by the Department of Trade and Industry before any decision is reached.

Under Department of the Environment Circular 14/90 'Electricity Generating Stations and Overhead Lines', which sets out that the Council should complete a 'Form B' (A copy of the from can be found at the end of the main report) which asks the Council to outline the grounds of any objection it may have to the proposed development and also if the Council wish a public inquiry to be held before the Secretary of State reaches his decision on the application. The Council are also asked to: identify who they consulted, to forward any representations received, identify any restrictions on the land, whether or not the development affect a building of architectural or historic interest, if the planning authority would wish to see modification s or conditions made to the proposal prior to consent being granted.

The Council will ensure that all representations and papers received will be sent to the DTI for consideration along with the comments of this Authority.

CONSULTATIONS

As part of the procedure and to ensure the widest consideration could be given to the proposal extensive consultation has been undertaken by the Borough Council and others involved in the process.

The Council consulted: -

979 individual properties within the vicinity of the site by letter. A site notice was also placed in the area. The following were also individually consulted:

Councillors (via weekly lists and copies of the non- technical summary, which accompanied the consultation)
Halton & St Helens Primary Care Trust
Halton Friends of the Earth
Helsby Parish Council
Wildlife Habitat Trust
Cheshire County Council
Weston Point Residents Association
Weston Village Residents Association
Mersey Estuary Conservation Group
Moore Parish Council
Preston Brook Parish Council
Hale Parish Council
Daresbury Parish Council
Frodsham Town Council
British Waterways
The Fire Service
United Utilities
Health and Safety Executive

Peel Holdings
Health Protection Agency
Liverpool City Council
Knowsley Metropolitan Council
St Helens Metropolitan Borough Council
Warrington Borough Council
Vale Royal Borough Council
Liverpool Airport PLC
Derek Twigg MP
Mike Hall MP
Friends of the Earth
Merseyside Environmental Advisory Service (environmental advisors to the Council)
Sutton Weaver Parish Council
Sutton Parish Council
Ellesmere Port & Neston Borough Council
Dutton Parish Council

The Department of Trade and Industry also consulted the following bodies/ organisations directly:

Environment Agency
Health & Safety Executive
Natural England
Government Office of the North West
Department for Transport
Ministry of Defence
Civil Aviation Authority
Department for the Environment, Food and Rural Affairs

INEOS Chlor as part of their submission process also consulted:

Approximately 900 surrounding premises
Derek Twigg MP
Mike Hall MP
Members of the INEOS site community forum (including local residents, and representatives from the Environment Agency, Police, Halton Borough Council, Vale Royal Borough Council and local schools)
Westlink Shipping
Environment Agency
Health and Safety Executive
Scottish and Southern Electricity
Halton Friends of the Earth
Halton Borough Council
Vale Royal Borough Council
INEOS also placed notices in the press.

In response to the consultation process the following representations have been received:

Summary of responses

CONSULTEE	SUMMARY OF RESPONSE	FULL DOCUMENT AVAILABLE AT APPENDIX
Cheshire County Council	No objection in principle. However additional information is required on traffic movements within Cheshire and the environmental implications of these movements. The County Waste Manager supports the application.	Appendix 1 – Document 1
Warrington Borough Council	No objection: • WBC supports the principle of sustainable waste management by moving waste up the waste hierarchy and supports the generation of energy from waste. • WBC consider the proposal consistent with PPS 10 as the facility would be of regional significance providing a major contribution to the long term regional waste management needs; and • No highways objections to the proposed facility.	Appendix 1 – Document 2
Helsby Parish Council	Raised objection on the grounds of Human Health Risk to the residents of Helsby and surrounding area. Helsby Parish Council submitted a	Appendix 1 – Document 3

	report written by Professor J Dearden on 'Human Health Risk Assessment. The report claims that the report submitted with the application was flawed and ignores impacts of fine and ultra fine particulate emissions, underestimates the risks to infants, and underestimates the cancer risk to the general population. It also states that it ignores the health effects of traffic pollution.	
Moore Parish Council	Objects on the grounds that Halton is historically polluted, that the proposal can only increase the threat to health and cause health problems and lead to traffic congestion.	Appendix 1 – Document 4
Derek Twigg MP	Raises concerns relating to the following: • Halton receiving large amount of the North West's Waste and impact on the image of the borough; • The height of the stack and the topography of the surrounding area and the impact the emissions would have on housing; • Health impact of emissions; and • The significant increase in the number of heavy goods vehicles.	Appendix 1 – Document 5
Mike Hall MP	Raises objection on the following grounds: • Threat posed to public health from the proposed facility and associated traffic; and • Traffic congestion	Appendix 1 – Document 6

Frodsham Town Council	Objects on the following grounds: • Detrimental to health; • Detrimental to ecology and nature conservation; • Adverse impact to local people due to noise, light, disruption and general amenity; and • Detrimental impact on transport infrastructure.	Appendix 1 – Document 7
British Waterways	Support the aspiration to transport Solid Recovery Fuel to the site via a wharf (not yet constructed).	Appendix 1 – Document 8
United Utilities	No objection to the proposal.	Appendix 1 – Document 9
Friends of the Earth	Objects on the following grounds: • Proposal adds additional and unacceptable pollution load in a borough that has been exposed to heavy industry and has some of the worst health in the country; • The perceptions of local residents of the impact of the facility on health; • Impact on health from emissions; • Unacceptable impacts on the visual amenity for local residents; • Unacceptable increase in traffic. • Impact on local economy in terms of investment, property values and the NHS; and • Impact on RAMSAR sites.	Appendix 1 – Document 10
Vale Royal Borough	No objection to the proposed facility subject to	Appendix 1 – Document 11

Council	• Further transport information identifying any impacts from the facility within Cheshire; • Detailed site investigation and mitigation measure in relation to contamination; • Detailed landscaping; • Provision of a Green Travel Plan; • A construction and environmental management plan; and • Provision of an off site ecological mitigation strategy.	
Halton and St Helens Primary Care Trust	The Director of Public Health, 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 have recently concluded that as there are clear associations between both daily and fine particles and effects on the cardiovascular system, a precautionary approach should be adopted in future planning. • Specific concerns relate 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	A copy of the full report has previously circulated to all Members, but is again appended for ease of reference. Appendix 1 – Document 12

	depositions of dioxins, furans and metals at a local level. The report also states that 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. The report recommends that the applicant quantify the effects of the additional particulate air pollution from the proposal on health of residents, a full Health Impact Assessment is commissioned and appropriate control measures are put in place in relation to the transportation of hazardous waste.	
Ward Councillor	Objects to the proposal and raises concerns regarding the potential impact on residents of Halton. Mainly the risks to health, the impact on the already congested local highway network, the impact of noise on neighbouring residents and the impact on the image of the borough and how this will affect investment. The councillor states that recycling items is preferable to burning them and believes that communities should take responsibility for their own waste and is concerned about the implications of the proposal on global warming.	A copy of the full report has previously circulated to all Members, but is again appended for ease of reference. Appendix 1 – Document 13
Halton Action Group Against The Incinerator	Raise objections due to the location of the facility in such close proximity to residential properties. The report raises further objections on the grounds of Human Health Risk to the residents of the surrounding area.	This report has already been copied to members and attached with additional information received from

	The report claims that the report submitted with the application was flawed and ignores impacts of fine and ultra fine particulate emissions, underestimates the risks to infants, and underestimates the cancer risk to the general population. It also states that it ignores the health effects of traffic pollution. The report raises questions over the calculation of the stack height and the adequacy of a 105m high stack.	the action group see appendix 2 This appendix also includes letters/ correspondence received following the Members Briefing and Awareness meeting of the 21st June, 2007

In addition 826 letters of objections and 2 petitions of 211 signatures have been received raising objections on the following grounds:

- That Runcorn is already one of the highest polluted areas in the country due to industrial heritage and soil pollution, air pollution traffic and air traffic
- Proposal would increase the threat to health
- Already high standard mortality ratio and cancer, heart and respiratory diseases
- Dioxins and poisonous gasses produced
- Proposed plant source of cancer and birth defects
- Detrimental environmental impact
- Impact on already congested roads
- Noise pollution
- Impact of chemical industry in Weston village in the past community devastated from dangerous gases
- Chimney too low compared to surrounding area prevailing winds blowing emissions on to surrounding area
- High existing levels of emissions the development would not enhance the town as suggested in government policy
- Capacity of proposal far exceeds local area
- Undermine disposal of waste in an environmentally sensitive way
- Large quantities of waste would be generated and would be toxic
- Undermines effects to reduce carbon emissions
- Undermines proximity principle
- Undermines councils healthy living programme
- Resident's not properly informed and insufficient time given for debate

- Would blight the town as high tech business will not wish to locate hence impact on image now considered to be up and coming
- Luvella incinerator closed down 18 years ago due to health grounds
- Impact on road network and capacity
- Massive eyesore
- Light pollution with 24 hour working
- Close to residential properties and densely populated area
- Emissions from traffic
- Devalue properties
- Anxiety of living in close proximity to facility
- Dust and fumes
- Impact on children
- Already effected by toxic air chocked by fumes
- Hugh amount of heavy goods vehicles
- Storage of waste would encourage vermin
- Removal of mature trees
- Proposal contravenes the stated aims and objectives of the adopted UDP
- Negative effect on economic activity
- Visual intrusion
- Effects on health of residents
- Due to recycling targets the fuel for incineration is likely to be significantly reduced and therefore may have to shut down or find alternative sources of energy.
- 1 tonne of waste generates 2 tonnes of Co2 INEOS would produce 1.7 million tones per year.
- Incineration inefficient way of producing energy when compared to coal, gas and oil.
- Children more susceptible to dioxins
- Precautionary principle should apply.
- Human Health Risk Assessment fails to take account of pollution from site traffic during construction and operation and ignores effects of thallium and vanadium and does not even mention the risks from polybrominated diphenyl ethers (PBDE's)
- No sites on Frodsham and Helsby considered in relation to health
- No acknowledgement to effect on nature
- Not clear if terrain has been adequately considered
- Ignores above ground produce such as cabbages
- Incorrectly claims that all estimated carcinogenic risks are significantly below the claimed 1in 100,00, which itself is too high by a factor of 10
- Perceived threats stress and worry and house prices
- No account taken of background levels
- No alternative routes for if Picow Farm Road is closed

- Conflict on picow farm road with cyclists as Picow Farm Road is narrow
- Plumes from cooling towers
- Having to pay for the environmental statement
- Greater risks of road accidents
- Impact on wildlife
- Impact on air quality that already exceeds Government guidelines
- No consideration of residents purely financial decision
- Water contamination
- Contrary to Government policy
- Effects on employees
- Noise from railway for the properties that are very close by
- Quality of life for residents

1 letter of support has been received stating the following:

- The project has wider economic benefits
- That INEOS are responsible company and that he lives near by to the proposal
- Landfill cannot keep being used for waste disposal

Representation received from the DTI

A number of representations have been forwarded to the Council from the Department for Trade and Industry, for consideration. These include: -

580 letters of objection and 1 petition of 254 signatures raising the issues mentioned above.

44 letters of support relating to job security and the proposal is in accordance with government guidance. The following comments were also received: -

Ministry of Defence confirms no safeguarding objections to the proposal.

Civil Aviation Authority made the following comments:

- Aviation obstruction lighting may be required;
- Flaring and venting of gas should be anticipated, even if only during emergency situations. This might have a potential impact upon the safe operation of aircraft in the immediate vicinity. If there were such a danger, the site would need to be promulgated to the aviation community along with advisory avoidance.

Environment Agency has no objections in principle, but would like to make the following comments:

- The documentation provided highlights the potential for contaminant sources to exist at the site. No supporting information on the likely extent of contamination or the risks posed to controlled waters from such contamination has been provided. Intrusive investigations at the site should be provided before any planning permission is granted.
- If permission is granted the Environment Agency recommends a number of conditions relating to contamination and an oil interceptor.

Natural England have concerns about the potential additional visual impact of the proposed development which include a 105m stack and large buildings of 47m height and considerable mass. It would be sited in a very prominent area in close proximity to pats of the Mersey Estuary, which are of high value for landscape, recreation and nature conservation. Whilst it is recognised that the site has many practical advantages and is within a highly degraded industrial setting, it is important every effort is made to ensure that the proposed development has an overall positive, rather than negative or neutral, visual impact. The EIA has considered the visual and landscape impact, but further information should have been provided.

Natural England are satisfied with the methodology and findings of the ecological surveys, but consider that opportunities for mitigation, particularly in terms of enhancement, have been lost.

In addition to these consultation exercises, the Council also hosted a briefing session for all Members, on the 21st June, when presentations were given by INEOS, Halton Action Group Against The Incinerator, the Director of Public Health and the Environment Agency. An opportunity to ask questions of the various parties was given. The transcript of this briefing session is appended to this report, as is the response from the interest groups to questions raised on the evening and in subsequent correspondence. (Appendix 3 – Transcript of the Members Briefing and Awareness Session)

In response to issues raised at this session, authorities both in England and across Europe, who have incinerators within their areas were contacted and asked to share their knowledge and experiences. As a consequence letters were received from Antwerp (the response received was from the interlocal incineration company ISVG) and the Head of Environmental Health at Enfield. Copies of there letters can be found in Appendix 4. We have also approached Coventry City Council, Kirklees Metropolitan Council, Authorities in Bonn and Cologne and are still awaiting responses.

SUMMARY OF PROPOSAL AND JUSTIFICATION PROVIDED BY THE APPLICANT IN SUPPORT OF THE PROPOSAL.

The proposal is a 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.

The proposal

The site in total comprises approximately 10.7 hectares. The proposal would require the relocation of the existing INEOS workshop and training facility from the main site to a separate location (known as the secondary site). This site has been identified in the application and occupies an area of 1.4 hectares and is adjacent to Gate 2 at the Runcorn Site off Bankers Lane. The secondary site is to be subject of a separate planning application.

The applicant in support of the application provided an Environmental Assessment and Human Health Risk Assessment. Both are appended to this report to assist Members.

The application seeks approval for the demolition of the existing buildings, site clearance and provision of a generating station comprising: boiler building (47m in height), bunker, tipping hall, flue gas treatment, turbine hall, cooling towers, stack of 105m in height, workshop and stores, administration building, water treatment plant, switch house, weighbridge

and rail sidings (x6), new access road and car parking and ancillary development including services and utilities.

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 have a total capacity of approximately 360MW (thermal) and would be capable of generating up to approximately 100MW of electrical power and 140 tonnes per hour of steam for export to and use 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.

Large amounts of electricity are required for the processes carried out by INEOS. The Runcorn Site is the largest single consumer of energy in the UK, taking about 1% of the national supply of electricity. In addition, the Site produces other chemicals such as OVC, solvents, refrigerants and sulphur-based compounds, which require heat provided by steam. The average energy consumption of the Site is about 335MW (electrical) of electricity and about 160MW (thermal) of process heat (steam).
Some steam is generated by the burning of surplus hydrogen and as a by-product of the chemical process. However, the vast majority of the Runcorn Site's energy needs are met through the purchase of natural gas. Approximately 30% of this is burnt directly within the site to produce steam and some electricity. The remaining 70% is supplied to a neighbouring power station operated by Rocksavage Power Limited (RPL).

Fuel

The fuel for the facility is derived from municipal waste. The fuel is known as both SRF (Solid Recovered Fuel) and RDF (Refuse Derived Fuel). It is expected that it would be sourced primarily from local authorities in the northwest region.

RDF/SRF is derived from Municipal Solid Waste (MSW) which is the remnant of household waste after kerbside recycling. This means that in principle the major recyclables (for example glass, metal cans, plastic bottles, paper, and garden waste etc) do not enter the MSW stream. In practice, however, kerbside recycling is not 100% effective, and MSW does contain limited quantities of these materials.

Prior to the formation of RDF, MSW is processed in a Mechanical and Biological Treatment (MBT) plant. MBT plants tend to go through a process of removing remaining recyclables.

The material remaining after these processes contains material that is not recyclable, such as wood, cardboard, non-recyclable paper, non-recyclable

plastics, textiles, rubber, leather, inerts etc. It is this that is used to produce the RDF that is proposed for use as fuel for the Energy from Waste facility. The resulting material has a higher calorific value than untreated waste. MBT facilities do not form part of the project subject to the current application.

There are relatively few options to manage such residual materials; the main options in common use are Landfill and Incineration.

Landfill is categorised as a method of 'disposal' which sits at the bottom of the waste hierarchy. Incineration without energy recovery similarly represents a 'disposal' option. Incineration with energy recovery, or energy from waste facilities, recover useful energy and can reduce the amount of waste requiring disposal by landfill to less than 10% of the amount fed. It has been proposed that plants with an overall Low Calorific Value (LCV) thermal efficiency of greater than 26% may be categorised as 'recovery' rather than 'disposal' options. The overall LCV thermal efficiency of the proposed Runcorn plant is anticipated to be over 39% and would therefore fall into this recovery category, a tier above disposal in the waste hierarchy.

The facility would have the capacity to consume approximately 750,000 to 850,000 tonnes of fuel per year. The municipal waste would be taken directly from local authorities and taken to treatment facilities. These treatment facilities are not part of this application and not owned or proposed by INEOS.

Process and technology

The fuel would be delivered to the tipping hall and the fuel discharged into the fuel bunker. The fuel would be burned in the boilers, which would each comprise a combustion chamber and a steam generator section.

The fuel bunker would have up to approximately five days storage at full operation capacity the fuel would pass through equipment to ensure that the particle size and composition is suitable for feeding to the boilers.

Since the Environmental Statement INEOS Chlor have selected Water-Cooled Moving Grate (WCMG) as the technology to be used in the proposed facility. As part of the initial design phase of the project the applicant reviewed all available technologies. These included advanced combustion technologies (ACT) such as Pyrolysis, Gasification and Plasma gasification as well as conventional combustion technologies. The assessment found that there were few ACT plants operating in Europe and these were only at a small scale and not appropriate for the proposed plant. A number of large plants have been built using pyrolysis technology but these failed to operate successfully and have been shutdown.

In terms of conventional technology both moving grate and fluidised bed technologies were considered. The conclusion of the study was that fluidised bed technology offered no energy efficiency or cost advantages over the moving grate technology. Fluidised bed technology is relatively uncommon and a number of plants have had significant operating problems. On the other hand, the study concluded that the moving grate technology is well proven with many years experience of successful operation. Moving grate technology is the industry standard across Europe. In addition fluidised beds produce a far higher proportion of hazardous ash that requires disposal.

At the time of writing the Environmental Statement, the detailed combustion technology had not been finalised. However, the Environmental Statement was based on conservative 'worst case' assumptions for each topic to ensure that the environmental effects were not underestimated. Therefore the applicant believes that the selection of the technology does not affect the conclusions reached in the Environmental Statement. The technology selection will be considered by the Environment Agency in detail as part of the Prevention Pollution Control application process to demonstrate the use of Best Available Techniques (BAT).

Each boiler would comprise a combustion chamber where the fuel is burned and steam generator section where high-pressure steam is produced. The combustion chamber would maintain the hot flue gases at 850 °C for a two second resistance time, in compliance with the Waste Incineration Directive (WID). The flue gases would then pass over evaporator, superheater and economiser banks that cool the flue gases by generating steam. This steam would be fed to the condensing/ passout steam turbines. Air supply for the boilers would be drawn from the bunker area to remove the emission of dust and odours from the bunker and tipping hall.

Bottom ash would be extracted from the furnace section and fly ash from the steam generation section. Bottom and fly ash would then be conveyed to storage silos for removal from site.

The flue gases from the boilers would be treated prior to discharge to atmosphere. This would include injection of hydrated lime and activated carbon to neutralise any acidity in the flue gases and absorb any contaminants. Further particulate removal would take place by passing the flue gases through bag filters. Induced draft fans would then transfer the flue gases to the multi-flue single stack for discharge.

Water would be pumped via the economisers into the boiler drums. Water would be taken from these drums and evaporated and superheated o produce steam. The steam would then pass into two passout condensing steam turbines. Process steam for the Runcorn site would be extracted from the turbine. This would then be superheated to 240 °C, at which

temperature it would be exported to the Runcorn site via an existing steam main. Up to 140 tonnes per hour of steam may be exported. The steam not exported would pass through the steam turbine to the condenser. The condenser would be cooled using re-circulating cooling water. This water in turn would be cooled by evaporative cooling towers.

The CHP plant would generate up to 100 MW of electricity. A small proportion of this would be used to power the electrical equipment within the facility; the remainder would be transmitted to the Runcorn site's existing electrical distribution.

Alternative sites considered by the applicant

A review has been carried out of possible alternative sites for the project. A key consideration was that the project would be a combined heat and power facility, supplying steam to the Runcorn site in addition to electricity. Given that it is not practical to transport steam over long distances, sites on or close to the Runcorn site were considered to be preferable. A further key criterion was the availability of road, rail and water-borne transportation links. Sites with good multi-modal links or potential for such links were considered to be preferable.

The following are alternative locations that were considered by the applicant:

Former Lagoons, Clifton – This site lies to the South East of the Runcorn Site. The plot is considered to be of sufficient size to accommodate the development and has good access to the road network being adjacent to the Runcorn Expressway/M56 Junction 12 intersection. It also borders the Weaver Navigation, and hence would be accessible to water-borne transport. However the site has no rail link. The nearest possible rail connection is approximately 1km away but no suitable rail route has been found to the site. This site is also located approximately 1.5kms from the large steam consumers on the Runcorn site. Therefore, the use of this location would require a major upgrading of the steam distribution system. It was concluded that the disadvantages of this site in terms of the feasibility of provision of a suitable rail link, the likely environmental effects of such provision and the operation feasibility and efficiency with respect to steam distribution, were such that this site was not a preferred site.

Site of existing Weston Point Power Station – The power station is located at the centre of the Runcorn site, adjacent to the Runcorn & Weston Canal. It is the current hub of steam supplies to the site, and has an existing electrical power infrastructure. The power station is due to be taken out of service in the near future, and some facilities could be retained for new development.

The construction of the plant would require a minimum operational area of 8ha of land. Demolition of the existing power station would release approximately 3 ha, which is considered to be insufficient. The site is bordered by operating chemical plants, which it is not considered practical or cost effective to relocate.
Although the power station was previously connected by rail, the link was removed some years ago and the route built over such that it is not feasible to reinstate the rail link. In addition access to the Weaver navigation is difficult to achieve due to the presence of a major pipe and cable route. Road vehicles can access the site via the expressway. However, the transport links within the site are poor and the additional traffic would have a negative impact on current operations. Similarly, the need for construction personnel to access this central part of a top tier COMAH site on an extended basis would give rise to safety and security concerns. It was concluded that this location is constrained by a number of factors, particularly a lack of space and rail facilities.

Site of Former Chemical Plant, Adjacent to Gate 2 – part of this site was formerly occupied by a chemical production facility. The location is considered to be of a sufficient size to accommodate the proposed facility but its shape is such that an efficient layout cannot be achieved. In addition, the scope for construction lay down area to be provided near to the site is very limited.
This site would have good road links. However the nearest rail link is at Picow Farm sidings, approximately 1km away. With respect to rail, the location is adjacent to the former rail link into the Runcorn site, which was removed some years ago and which ran significantly close to a number of residential properties. Reinstatement of this rail link is considered to be undesirable due to the loss of amenity to local residents and disruption to traffic caused by the operation of the two level crossings. It was concluded that this site was limited by the disturbance that would be caused by reinstating the rail link and the poor layout of the development.

<u>Ecology and nature conservation</u>

The application site and the surrounding area have been subject to a study to identify any features of ecological or nature conservation importance. This study confirmed that the site is not subject to any nature conservation interest. The nearest statutory designated site is the Mersey Estuary, which is a site of international importance for nature conservation and is located 0.2 km to the west of the site of the proposed EfW plant. This site is designated as a Special Protection Area (SPA),Ramsar site and Site of Special Scientific Interest (SSSI) and is of importance for its large areas of intertidal sand and mudflats and smaller areas of reclaimed marshland, saltmarsh, brackish marshes and boulder clay cliffs, and for its bird population interest during the summer and winter months.

Effects arising from the project on the designated habitats and the important wintering bird populations supposed are assessed as negligible. There is thus no likelihood of a significant effect on any of these sites. No effects on any other designated sites within the study area are likely to result from the project.
A habitat survey of the application site was undertaken to identify the habitat type present and the potential for any notable species. The main site comprises existing industrial buildings, hard standing, areas of boundary tree planting, scrub and amenity grassland and planting. The workshop relocation site comprises existing INEOS industrial buildings and hard standing, which consists of mainly large areas of disused plant with scattered scrub.
The majority of the buildings on the site are unsuitable for roosting bats due to their construction, having pitched steel corrugated roofs, flat-topped roofs and steel vessels. The Weston Photographic Studios building was subject to a daytime bat survey, which confirmed that it is unsuitable for hibernating bats. No evidence of bats was recorded within the roof space or cellar of the building and no further survey work for bats is considered necessary.
The project would result in the loss of species 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 translocated to a suitable receptor site prior to construction. The significance of the effect on these species is considered by the applicant as minor adverse.

Waste products

The facility would produce bottom ash, fly ash and Flue Gas Treatment (FGT) residues.

Bottom ash
This is a non-hazardous material suitable for use in building blocks, road aggregates etc. it is anticipated that this material would be sold to a contractor for reuse and opportunities would be sought for its beneficial reuse. Any quantities that cannot be reused would be disposed to landfill. Transport of the bottom ash from the site would be by road.

Fly ash and FGT residues
These residues would be classed as a hazardous waste as they contain substances including heavy metals and dioxins etc. INEOS operates an existing landfill site at Randle Island in Runcorn that is licensed for the disposal of hazardous materials. It is envisaged that fly ash and FGT residues arising from the project would be transported to Randle Island for disposal. The distance between the application site and Randle Island is approximately 4km, and transportation would be by road.

It is anticipated that approximately 260,000 tonnes per year of these materials would be produced, although the exact quantities would depend on the composition of the fuel and the technology of the boiler. The indicative ranges (originally stated) are as follows:

- Bottom ash: 110,000 to 220,000 tonnes per year;
- Fly ash: 10,000 to 120 tonnes per year;
- FGT residues: 30,000 to 35,000 tonnes per year.

These figures have subsequently been amended to:

The maximum tonnes per annum area as follows:

- Bottom ash 191,000
- Fly ash 21,000
- FGT residues 54,000

(Confirmed in Paragraph 7.6 in the response to question raised by Merseyside Environmental Advisory Service)

Socio-economic effect

INEOS Chlor Limited is the largest of the companies operating on the Runcorn site and provides a co-ordinating role and a number of services to other companies. The site currently employs approximately 2200 personnel, of which approximately 6000 are contract employees and visiting employees who service the resident companies. The majority of employees work normal daytime hours, although at night and at weekends there are typically approximately 100 people working on the site.

The proposal would require construction personnel to support the construction process throughout a period of approximately three and a half years. During the early stages of the civil works approximately 100 workers would be employed. This would increase throughout the construction programme and would peak at approximately 750 workers (during the plant erection stage) In addition, the project would result in a capital expenditure of approximately £300 million.

The local area is likely to benefit indirectly through associated expenditure of construction personnel at local shops and businesses. The indirect employment and economic benefits generated through the construction phase would include, for example, the local purchase of raw materials and the temporary hiring of plant and machinery. This multiplier effect would be likely to support other construction businesses based within the region, including haulage companies and plant hire services. The overall effect on employment is considered to be minor to moderate beneficial.

During operation it is anticipated that the project would provide employment for approximately 50 people. At this time, it is not possible to predict

accurately where these employees may be currently based or whether they would be likely to relocate. However, it can be assumed that at least a proportion would be already resident within the northwest and possibly, within the borough.

The proposal would also provide wider regeneration of the area. The access road into the site would provide access to Salt Union and eventually to Weston Docks. This would remove HGV traffic from Sandy Lane. The access road would also allow the full redevelopment of Weston Docks, which at present is restricted due to poor access through a residential area.

Traffic and Transport

The fuel for the proposed facility would be delivered by rail and road. The fuel generated in the Manchester area will be delivered by rail. The worst-case scenario has been assessed for the other northwest regions, which is that the fuel would come in by road, there is a possibility that some may come in by rail, this is dependant on the location of the fuel plants. Even with this worst-case scenario, the applicant states, there is likely to be no significant adverse impact on the highway network. 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 traffic would need to travel through the Weston Point residential area. Once the road is constructed access will be provided from Picow Farm Road to Salt Union and Weston docks when development comes forward, thus removing HGV traffic from Sandy Lane.

The existing railway sidings would be modified and extended to allow several trains at a time. The fuel coming in by rail would then be offloaded from the trains using a gantry crane onto shuttle vehicles, which would then transport the containers within the site to the tipping hall, where they would discharge into the fuel bunker.

When the road deliveries reach the site, they will pass over a weighbridge and then directly into the tipping hall. The tipping hall would be an enclosed building where the containers and lorries would discharge their contents into the fuel bunker.

During construction the maximum number of HGV movements to and from the development would not exceed 400 movements a day (200 In and 200 Out). The 400 movements are during concrete pouring at other periods the movements should not exceed 150 movements per day.

The Civil phase would require approximately 100 construction staff generating 124 movements a day. The plant erection phase requires the most staffing with a figure of up to 750 construction workers, this would generate approximately 930 movements a day during the busiest periods of

construction. This is assuming the car driver mode share of 62% (source: Neighbourhood Statistics for Halton Borough).

Operational Phase

All deliveries are to be routed from the expressways along Picow Farm Road onto a new access road into the site, taking away all HGV movements from Weston village. Table 6 of the T.A indicates 384 HGV movements a day, this is two way 192 in and the same out over a 12 hour period, 16 HGVs in per hour one every 4 minutes in. This will then distribute onto the expressways either North or South. This gives a daily impact on the expressways of 3%or less dependent on the North South split.

Congestion currently occurs on the northbound Expressway on the approach to the Silver Jubilee Bridge and on the southbound A557 on the approach to the M56 Junction 12. The applicant's traffic assessment concludes that this congestion would not be significantly affected by the traffic arising from the project.

Rail link for waste deliveries

Transport of waste to the site from Manchester is proposed by rail, and it is the intention of INEOS to encourage all other the relevant local waste authorities to include obligation for transport fuel by rail during their MBT contract placement process.

Rail access is included in the Transport Assessment. This states 6 rail sidings are available to accommodate fuel deliveries, waiting and unloading. This would allow a further 3 for extraordinary demand. The reports state 5 trains per day will deliver fuel to the site, 3 from Manchester and up to 2 trains from other sources.

Discussions between Ineos and Network Rail identify the need for some improvements to the signalling on the branch line.

Transport of Hazardous Waste from the site

The Transport Assessment shows that there will be up to 20 vehicle movements per day associated with fly ash and reaction products, which will need to be transported to the hazardous waste site at Randle Island. The route to Randle Island is Picow Farm Road to the Expressway, leaving at the Astmoor junction and travelling over the swing bridge via Astmoor Road.

Employee travel demands

The assessment project that staffing level at the plant will be 50 employees providing 24-hour cover.

Noise

The noise assessment provided indicates that the noise and vibrational effects from the site are likely to have no significant effects. Provision for noise mitigation along the southern boundary of the site has been made within the project design.
Paragraph '9.10 of the ES states that --"It is considered that the following construction sources would have the potential to give rise to significant vibration effects:

- Demolition of existing structures on the site; and
- Driven piling or vibratory piling (bored or augured piles would be unlikely to give rise to significant levels of vibration)."

If this is the case strict controls and procedures for contractors to ameliorate the effect will be essential. The applicant has confirmed that it not take place without prior consultation with the Council.

Paragraph 9.11 of the ES states that --- "Significant vibration effects due to HGV's are unlikely provided that the haul roads do not contain significant pot holes or ruts"

Air Quality

The proposed facility will be designed to meet the limits specified within the EU Waste Incineration Directive and the site and emissions would be monitored. The emissions from the facility and from traffic are not considered to have significant adverse effects. (Further information is provided below)

Townscape and Views

The project would comprise a layout of several buildings housing the main equipment for production of electricity and steam using fuel derived from municipal waste. The main building/boiler house would be located in the northern section of the site. The building comprises a simple rectilinear form, clad in metal sheeting, with a roof height of 47m. A stack for the discharge of flue gas would rise to 105m at the northern end of the site. Smaller buildings linking to the production of steam and electricity include fuel bunkers, turbine hall, offloading station and tipping hall. Cooling towers are associated with these buildings. A small office building and weighbridge would be located near the sites road entrance, which provides a new link from Picow Farm Road. The existing rail link would be modified to incorporate unloading areas, gantries and sidings.

The project site is typical of the urban character of the industrial district of Runcorn. This area has a poor condition, local value and a low sensitivity to change. The introduction of a group of relatively large scale buildings and infrastructure elements and a high level stack into this location would form a visually prominent new element in an industrial setting, and is unlikely to be out of context with its surroundings.

The applicant has provided further supporting information and has responded to a number of questions raised by the Council, Merseyside Environmental Advisory Service and the Halton Action Group Against The Incinerator. These responses have been attached in Appendix 5 – Information received from the applicant.

SUMMARY OF RELEVANT POLICIES

European and National

The introduction of the European Union Landfill Directive (1999/31/EEC) has fundamentally change the way waste is managed in the UK, with the most significant requirement being the progressive reduction in the amount of waste permitted in landfill. For example, by 2020 no more than 35% of the amount of biodegradable municipal solid waste produced in 1995 can be disposed of in landfill sites. This may place a greater emphasis on incineration as a means of waste disposal.

The European Union Waste Incineration Directive (often termed '-WID') 2000/76/EC will further reduce the potential to pollute. This was transposed into UK law on 28 December 2002 and all-new incinerators already have to comply with the tighter provisions of this Directive. This new Directive aims to reduce and/or prevent possible negative effects on the environment caused by emissions into air, soil, surface water and groundwater, and thus lessen the risks which these pose to human health. As well as stricter emissions limits, this Directive also requires better management systems and increased monitoring of emissions. The Waste Incineration Directive therefore imposed stricter operating conditions and emissions standards.

The overall objective of Government policy on waste, as set out in the strategy for sustainable development, is to protect human health and the

environment by producing less waste and by using it as a resource wherever possible.

The Governments Waste Strategy 2007 (published in May 2007) sets out the national overview for dealing with waste. The Strategy includes the following points as two of its main objectives:

- Securing the investment in infrastructure needed to divert waste from landfill and for the management of hazardous waste; and
- Getting the most environmental benefit from that investment, through increased recycling of resources and recovery of energy form residual waste using a mix of technologies.

The Government has a number of key proposals for action, on of the main elements of the new strategy being to incentivise efforts to reduce, re-use, recycle waste and recover energy from waste.

The Government proposes that one of the key ways to secure its objectives is to secure investment in infrastructure. One of the ways the Government aims to secure this is through Obligation Certificates (ROCs) to encourage a variety of energy recovery technologies (including anaerobic digestion) so that unavoidable residual waste is treated in the way, which provides the greatest benefits to energy policy. The Strategy considers that recovering energy from waste (EfW), which cannot sensibly be recycled, is expected to account for 25% of municipal waste by 2020.

The Governments overall objective for waste policy in securing the future is the protection of human health and the environment by producing less waste and by using it as a resource wherever possible. Through more sustainable waste management – reduction, re-use, recycling, composting and using waste as a source of energy – the Government aims to break the link between economic growth and the environmental impact of waste.

Chapter 5 of the Strategy deals specifically with recovering energy from waste and states that:
‘Recovering energy from waste which cannot sensibly be reused or recycled is an essential component of a well-balanced energy policy, and most of our European competitors already pursue this vigorously. Denmark, for instance, derives 3.6% of its electricity supply from municipal waste.’

INEOS have been quite open about the fact that an increase in gas prices which has affected the ability of the site to run efficiently has led to the formulation of the proposal for the EfW facility. The Governments Waste Strategy 2007 also recognizes this fact and establishes it as a reason why we should be looking towards deriving energy from waste. It states:
‘Recent sharp increases in energy prices, and continuing instability in a number of supplier countries, underline the importance of maximising

energy recovery from the portion of waste which cannot be recycled. This means using the most efficient technology for the job, and recovering heat as well as electricity where practicable.'

The Strategy also recognizes the public concerns regarding EfW facilities, stating that:
'The recovery of energy from waste has been held back by public fears over alleged health effects, and fears that the development of suitable infrastructure would lock in wastes which could otherwise be minimised or recycled. Concern over health effects is most frequently cited in connection with incinerators. Research carried out to date shows no credible evidence of adverse health outcomes for those living near incinerators. The relevant health effects – primarily cancers – have long incubation times, but the available research demonstrates an absence of symptoms relating to exposures twenty or more year ago, when emissions from incineration were much greater than they are now. Very demanding EU standards for dioxin emissions now apply. The Health Protection Agency has published a short position statement on the health impacts for municipal waste incineration which reaches similar conclusions.'

The Waste Strategy 2007 clearly indicates that in order to resolve the landfill crisis and effectively manage the disposal of our waste we should consider Energy from Waste Facilities as part of the solution. Not only can these facilities aid the reduction of waste going to land fill but can also provide an energy source. The Government clearly recognizes public health concerns but advises that through research carried out there is no 'credible' evidence to support such fears.

In respect of waste management, Local Planning Authorities are advised within-

Planning Policy Statement 10 Planning for Sustainable Waste Management that

- Paragraph 26: In considering planning applications for waste management facilities, waste-planning authorities should concern themselves with implementing the planning strategy in the development plan and not with the control of processes which are a matter for the pollution control authorities.

- Paragraph 27: the planning and pollution control regimes are separate but complementary. Pollution control is concerned with preventing pollution through the use of measures to prohibit or limit the release of substances to the environment to the lowest practicable level. It also ensures that ambient air and water quality

meet standards that guard against impacts to the environment and human health. The planning system controls the development and use of the land, and the impacts of those uses on the development and use of land. Waste planning authorities should work on the assumption that the relevant pollution control regime will be properly applied and enforced.

- Paragraph 30: Modern, appropriately located, well-run and well-regulated, waste management facilities operated in line with current pollution control techniques and standards should pose little risk to human health. The detailed consideration of a waste management process and the implications, if any, for human health is the responsibility of the pollution control authorities. However, planning operates in the public interest to ensure that the location of proposed development is acceptable and health can be material to such decisions.

- Paragraph 31: Where concerns about health are raised, waste-planning authorities should avoid carrying out their own detailed assessment of epidemiological and other health studies. Rather, they should ensure, through drawing from Government advice and research and consultation with the relevant health authorities and agencies, that they have advice on the implications for health, if any, and when determining planning applications consider the locational implications of such advice. In turn, the relevant health authorities and agencies will require sufficient understanding of the proposed waste management process to provide considered advice.

- Paragraph 36: waste management facilities in themselves should be well-designed, so that they contribute positively to the character and quality of the area in which they are located. Poor design is in itself undesirable, undermines community acceptance of waste facilities and should be rejected.

The above highlights that planning process should not duplicate the control regimes set out in separate legislation and that the planning authority should assume that the pollution control regime will be properly applied and enforced.

Further relevant guidance is given within Planning Policy Guidance (PPG24) Planning and Noise and PPS 23

PPG24 outlines the Government's view on noise and planning and *focuses on the planning of new noise-sensitive development in already noisy environments*. It establishes Noise Exposure Categories (NECs) that are

applicable when planning new residential developments affected by transport noise or by mixed noise sources in which industrial noise does not dominate. However, these NECs cannot be used for assessing noise impacts of new or existing noise sources on existing housing. In the case of proposed noise-producing development affecting existing noise sensitive premises, PPG24 advises that BS 4142:1997 can be used, within its own terms of reference, to predict the likelihood of complaints, and hence assist in the assessment. However, many planning authorities adopt more stringent standards than are implied in PPG24, which really only discusses the likelihood of complaints. PPG24 does not offer a single set of criteria, but introduces the concept of NECs that provide flexibility to take account of local conditions and the needs of the local community and economy.

(Planning Policy Statement 23) states that where there is a reason to suspect contamination, such as the existence of former industrial uses, there should normally be a desk study of the readily-available records assessing the previous uses of the site and their potential for contamination in relation to the proposed development as a minimum. If the potential for contamination is confirmed, further studies by the intending developer to assess the risks and identify and appraise the options for remediation should be required.

Recent guidelines in PPS23 set out the Government's policies on pollution control and planning. Annex 1 paragraph 1.48 regarding planning conditions states "*planning conditions could be used in respect of [...] impacts such as noise, vibrations, odour, air pollutants and dust from certain phases of the development such as demolition and construction".*

Local and Regional Policy Considerations

There are a number of policies at both the Regional and Local level, which will be of importance for the INEOS Chlor development. The current Regional Spatial Strategy (RSS) was adopted in March 2003, but it is currently being reviewed and the emerging draft RSS is currently at an advanced stage with the Panel Report of the Examination in Public of the RSS having been received in May 2007. The UDP was adopted in April 2005 and currently the policies within this document are saved as part of the Halton Local Development Framework (LDF).

Draft RSS (January 2006 and Panel Report May 2007)

The draft RSS includes a standard policy on development principles for all proposals and schemes (Draft RSS - DP1) this states that developments, such as that proposed by INEOS Chlor, 'must demonstrate excellent design quality, sustainable construction, efficiency in resource use and respect for their physical and natural setting'. The Panel Report recommends making stronger and has suggested that a new policy is created to promote

environmental quality (Panel Report - DP6). To meet the requirements of this policy it will be important that the design, construction and environmental quality of the INEOS Chlor development are of the highest possible standards.

There are also a number of policies within the RSS that deal more specifically with waste management issues (Draft RSS - EM10, 11,12 and 13). The first of these (Draft RSS - EM10) looks to ensure that all sustainable new waste management infrastructure reduce harm to the environment, improve the efficiency of resources, stimulate investment and maximise economic opportunities. The next policy (Draft RSS - EM11) sets out more about the waste hierarchy. With the subsequent policy (Draft RSS - EM12) providing further detail on the proximity principle, which suggests that facilities for the treatment and disposal of waste should be sited as close to the source of the waste as possible so as to avoid the unnecessary transportation of waste material over long distances. The final policy (Draft RSS - EM13) looks for an appropriate type, size and mix of development opportunities to support the waste management facilities. To meet the requirements of these policies the INEOS Chlor development will need to demonstrate that it will reduce harm to the environment, including reducing the impacts of climate change, that it sited as close to the source of waste as possible and that waste material will not be unnecessarily transported over long distances. However, it should be noted that the Panel have recommended that a partial review of the RSS is carried out as soon as possible, including a review of the waste policies especially the identification of broad areas for the location of facilities.

RSS (March 2003)

The current RSS contains a similar range of policies in relation to both the quality of design and in terms of waste management. Policy DP3 highlights the need for development to demonstrate ‘good design quality and respect for its setting’. Whilst Policies EQ4, 5 and 6, provide details on the waste hierarchy, regional self sufficiency, the proximity principle, the need for a mixed approach to waste management and the need for waste management facilities to adopt sequential approach outlined in the RSS. To meet the requirements of these policies the development should promote self sufficiency, that is most waste should be treated or disposed of within the region within which it is produced, the development should also follow the values of the ‘proximity principle’ and should ensure that waste is managed as near to its place of production as possible and the development should be accessible by rail and water.

Halton Unitary Development Plan (April 2005)

There are a significant number of policies within the Halton UDP which are relevant to the proposed development. Some of these policies are specific

to the location to the development, some are specific to the use of the proposed development as an Energy from Waste Facility and some are general to all development within the Borough.

Starting with the policies which are specific to the location of the development, the proposed to development is located within the Runcorn and Weston Docklands Action Area and within an Environmental Priority Area, due to its location it is also likely to be affected by COMAH policy, the Liverpool Airport Height Restriction Zone and possibly by its proximity to the Mersey Estuary SPA, Ramsar and SSSI.

Policies S1 and RG4 both relate to the designation of Runcorn and Weston Docklands as an Action Area. S1 provides the strategic policy, which provides details on what will be expected of development within the Action Areas, which include stimulating economic development, reclaiming derelict and contaminated land and protecting and enhancing the local environment. To meet the requirements of this policy, the development will need to demonstrate that it will create jobs for local people and that it will protect and enhance the local environment. RG4 proposes the more detailed uses for the Runcorn and Weston Docklands, it suggest that this area should be used for storage and distribution uses. However, it does list other possible uses such as B1, B2, B8, open space, ancillary employment uses, education and housing, which would allow for the proposed development. The policy then goes on to set principles for development, the proposed development will be required to demonstrate that it has met these principles, which include the need for new development to: enhance existing rail links; improve road access and remove traffic from the adjoining residential areas; enhance the visual quality of the built and natural environment; and enhance its surroundings in order to raise the overall image and appearance of the area through the quality of design, it also states that new development should not be unsightly nor a source of noise, dust, odour or pollution that is considered to be detrimental to the future regeneration prospects of the area.

As an Environmental Priority Area the Council will be looking for any new developments to be of a quality of design that enhances the character and appearance of the area and that where a development is adjacent or visible from a main road or rail route that the quality of design in terms of landscaping, boundary treatments and facing materials is high.

Due to its location within the Liverpool Airport Height Restriction Zone and within a COMAH consultation zone, the development will need to ensure that it will not cause a hazard to air travellers, that it will not increase the likely accidental risk level from the COMAH site and that proposals are made to mitigate the likely effects of a potential major accident so that they are not considered significant.

The proximity of the proposed development to the Mersey Estuary SPA, Ramsar and SSSI will mean that consideration will need to be given to the effect of the development on the Estuary.

Next taking the policies which are specific to the proposed use of the INEOS Chlor development, these include S7, 8 and 9, MW1, 2, 3, 13 and 14. The first of these policies provides criteria for the development of waste treatment facilities. To meet with the requirements of this policy the proposed development will need to demonstrate that it will not have an unacceptable impact upon, amongst others, air quality, the amenity of local people, the highway network and visual amenity. This list is then added to by Policy MW1, to include: dwellings or other environmentally sensitive developments in terms of visual amenity; noise; vibration; dust; windblown materials; odour; litter; vermin; air, land or water pollution or other nuisance. This policy also promotes the use of sustainable transport modes, the need for development to be sited at a sufficient distance from dwellings or other sensitive nearby properties and the requirement for a restoration plan to be produced. Policy S8 provides details on the waste hierarchy, regional self-sufficiency, the proximity principle, sustainable transport and aftercare, whilst S9 requires that the need for the waste facility are demonstrated along with the long term environmental benefits. Policies MW2 and 3 set out the requirements for the details to be submitted with the application. Policies MW13 states that 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. Whilst MW14 goes on to provide a detailed criteria for incineration plants, therefore the proposed INEOS Chlor development must demonstrate that it meets all the following criteria:

- be located within a Primarily Employment Area and not within close proximity to residential areas or other sensitive land-uses;
- illustrate that there are no existing suitable disposal facilities, or potential sites for the development of suitable disposal facilities closer to the source of waste arisings;
- not have an unacceptable detrimental visual impact;
- not have an unacceptable detrimental impact on economic regeneration or investment confidence;
- not have an unacceptable detrimental impact on existing industries, particularly food manufacturing and high technology activities;
- incorporate proposals for energy recovery or combined heat and power utilisation;
- incorporate a Materials Recycling Facility (MRF) where dealing with wastes with a recyclable component;
- where practicable be located so as to make use of rail or water transport methods;
- not cause pollution or emissions that would have an unacceptable detrimental impact on surrounding land uses;

- with specific reference to clinical and chemical wastes, the proposal must demonstrate the need for the facility in a regional and sub regional context.

Finally, there are a number of policies which relate to all new developments. These cover a number of policy areas such as pollution, design and accessibility.

Policies S4, PR1, 2, 3 and 4 and TP19 are all related to pollution, the first of these policies is a general policy whilst each of the PR policies covers a specific issue. The policies state that development will not be permitted where it is likely to cause unacceptable pollution in terms of air, water, noise or light.

Policies S2 and BE1 and 2 are related to design, again the first of these is a general policy, whilst the other policies are more detailed. Together these policies will require the proposed to development to be of a high quality of design, that respects or creates local distinctiveness, that is well landscaped, that does not cause unacceptable loss of amenity to occupiers or users of adjacent land or buildings, that it considers energy efficiency, that it maximises the use of recycled materials, that it provides a quality built frontage and that it maintains and protects views which are important to the character and visual amenity to the area.

Policies TP1, 6, 7, 12 and 15 are related to the accessibility of new developments, they require that all new developments are built within 400m of a bus stop or railway station, that they have access for cycles, that appropriate cycle parking is provided, that safe and convenient pedestrian access is provided and that appropriate levels of car parking is provided. They also state that development will not be permitted which increases traffic to undesirable levels, unless improvements are made to the transport network.

<u>Other Relevant Regulatory Controls</u>

Pollution Prevention & Control Regulations

The site will only be able to operate with a permit issued by the Environment Agency under the Pollution Prevention & Control (PPC) Regulations. Planning controls cannot be used to duplicate the pollution control process and it should not be necessary to use planning conditions to control the pollution aspects where the facility requires a permit from the pollution control authority. In some cases, however, it may be appropriate to use planning conditions to control other aspects of the development. Planning authorities should work on the assumption that the relevant pollution control regime will be properly applied and enforced.

Pollution control regimes are not only concerned with preventing pollution through the use of measures to prohibit or limit the release of substances to the environment to the lowest practicable level but also ensures that ambient air and water quality meet standards that guard against impacts to the environment and human health.

Noise and vibration are included within the definition of “emissions” as set out in the Pollution Prevention & Control regime Regulations. Conditions will need to be included within the Permit for the control of noise, as appropriate to the specific situation. For this PPC application it is likely that a noise Management Plan will be required to be drawn up by the Operator and agreed by the EA. Simple predictions of noise can be based upon relatively straightforward equations and principles. However, detailed noise prediction and modeling requires the use of computers and commercially available prediction or mapping software.

The PPC permit in so far as ensuring that there is no degradation of the land and groundwater quality at the site during the operation of the plant also covers land contamination.

OBSERVATIONS/ RESPONSES

Following an initial assessment of the ES, it was considered that a number of areas, lacked detail and needed to be addressed, expanded upon or clarified by the applicant and or the authors of the assessment. The additional information and responses are included in the background papers (Appendix 5 – Information received from the applicant.)

In assessing the report it should be noted that the applicant did not undertake a detailed Health Impact Assessment (HIA) but has provided a human health risk assessment. This is beneficial but is limited in the evaluation of possible effects on the health of all populations likely to be exposed to emissions from the proposal. A true HIA is a more complex process that includes consideration of qualitative and quantitative evidence about the relationships between a proposal and the health of a population, including the views of communities who may be affected by it. It tries to identify all potential health impacts: intended and unintended, positive and negative.

The health risk assessment and the conclusions contained within it have been referred to the appropriate health protection bodies and their findings are the subject of a separate report and background paper. (See response from the Director of Public Health).

It is generally accepted 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 and will under these circumstances only make a very small contribution to background levels of air pollution. This Directive aims to reduce and/or prevent possible negative effects on the environment caused by emissions into air, soil, surface water and groundwater, and thus lessen the risks which these pose to human health. As well as stricter emissions limits, this Directive also requires better management systems and increased monitoring of emissions. The Waste Incineration Directive imposes stricter operating conditions and emissions standards.

In order to assess the impact the proposed Energy from Waste Facility will have on air quality during operation, computer models have been prepared to simulate the dispersion patterns of pollutants from the stack. The dispersion models have allowed pollutant concentrations at various locations to be predicted, which can then be compared to both health based and ecological standards to predict the potential effects. A number of commercially available dispersion models are available to predict ground level concentrations The ES uses two advanced models ADMS and AERMOD PRIME. Such an approach is in line with good practice advocated by the Environment Agency.

Combined effects in the air quality assessment have been addressed through the selection of baseline ambient air quality data that already includes effects associated with existing industrial facilities

The height of the stack required to ensure effective dispersion of the residual emissions in the stack was determined using worse case assumptions (both in terms of the emission limits – taken to be maximum Waste Incineration Directive levels and in terms of prevailing weather patterns.) Two models were used to predict the required stack height. With a stack height of 105 m, the models predicts that overall, the effect of the incinerator on existing pollution levels is neutral – slight adverse. The application states that for the “slight adverse” conditions to be realised, the facility would need to operate at the maximum permissible Waste Incineration Directive limits during periods coinciding with the worst case meteorological conditions. Notwithstanding, this modelling exercise has been commissioned to test these outcomes/ conclusions. At the time of writing this report the findings of the assessment are not available, so will be reported orally to the Committee.

The application assumes that because the existing industry has been in the area for so long, the emissions from these sources has shaped the background pollution levels. Therefore any background monitoring that has been done in the vicinity of the proposed site has already taken into account the contribution from these other sources and claim that the issue concerning “cumulative effects” of pollution with the existing industry in the

areas has therefore been addressed. “Combined effects in the air quality assessment have been addressed through the selection of baseline ambient air quality data that already includes effects associated with existing industrial facilities”

The application proposed states that fly ash and residues will be disposed of locally at the Randle Island waste site. This hazardous waste is in the form of dry dust. If it were released on route it could result in significant depositions in or adjacent to residential property. There is no detail of the design of the construction of vehicles, nor originally safety procedures to be but in place to prevent unwanted dispersion from vehicles, nor how residential areas will be protected during the trips to Randle Island for the disposal of fly ash and residues. The applicant has however, subsequently confirmed that the fly ash will be dampened down to avoid release.

The fuel to be used within the facility will require approval by the Environment Agency under the PPC permit. The permit will cover conditions concerning the appropriate storage and handling of the fuel. It has been confirmed that no untreated municipal waste or waste material generated on the Runcorn site will be used as fuel. It has been confirmed that in the event that there is insufficient RDF to fill the plant, the facility will be used to burn other non-hazardous materials such as biomass. The nature of the biomass could include: shredded paper, wood pellets, wood chippings and crops grown purposely for their energy content.

The application states “Construction phase dust effects would be controlled through the Code of Construction Practice developed for the project, a draft of which is included in Appendix 2.3 ”There are a number of sources of dust and emissions from construction activities that can release a range of particles. Recent guidelines in PPS23 set out the Government’s policies on pollution control and planning. Annex 1 paragraph 1.48 regarding planning conditions states “planning conditions could be used in respect of [...] impacts such as noise, vibrations, odour, air pollutants and dust from certain phases of the development such as demolition and construction”. In addressing issues around construction dust the following three principles are well established and are central to the control strategies. They follow a hierarchy to control the emissions of dust and other emissions and reduce human exposure: 1 prevention, 2 suppression, 3 containment.

Noise effects of all construction traffic has been considered in the EIS and results of the assessment indicate that a significant noise effect would not occur as a result of construction traffic using local roads. The noise effect on Picow Farm Road has been predicted to be 1dB during building construction and earthworks and 2dB during concrete pours which are not considered to be significant noise effects. No noise change is predicted for Expressway North or South for any scenario.

The guidance in PPS 23 states that further investigations and risk assessment will be needed if this initial assessment does not clearly and reliably demonstrate that the risk from contamination is acceptable. Where the desk study and site reconnaissance do not provide sufficient information to assess the risks and appraise remedial options, further investigations will need to be carried out before the application is determined. In consideration of the above points it is recommended that the planning authority ensures that the applicant provides the appropriate information to allow the comprehensive and robust assessment of land contamination risks to be undertaken, in line with the appropriate guidance and best practice, before it determines the application. If remedial measures were subsequently required it would be anticipated that these works could be controlled by conditions to any approvals.

Based on good practice guidance outlined in PPG24 and BS 4142, in order to prevent noise creep and to augment the Environment Agency Controls in any PPC permit, it may be appropriate and should be considered by the planning authority to set an overall boundary noise level using the criteria set out in the ES. This will need to be done in full consultation with the Environment Agency.

This proposal if authorised will be a major construction site and whilst specific activities can be the subject of detailed discussion at the time it would be appropriate to include a condition which governs the hours of operation start and finish on Weekdays on Saturdays Sundays, Bank Holidays or Public Holidays in line with those mitigation statements included in the ES.

For such a large undertaking which could well have a potential impact negative or positive on the well being of the local population other than the emissions from the process it would seem pertinent to seek to be assessed through health assessment modeling.

Heath Impact Assessment (HIA) can add value to decision making in the land use planning process. HIA is not a statutory requirement for any planning application at this point in time, but can be undertaken on a voluntary basis. In this case the applicant has provided a health assessment as opposed to a full HIA. The Health Protection Agency and the Primary Care Trusts are statutory consultees on any new local Pollution PPC permit applications and have experience of assessing the health impact of industrial developments. Given the level of expertise built up by these bodies it is felt appropriate that their comment upon the human health risk assessment be given substantial weight. Their report and findings constitute a separate stand-alone report and is appended at the rear of this report.

<u>Air quality management</u>

The Government's Air Quality Strategy requires the Council to periodically review and assess local air quality against health-based standards and objectives for specified air pollutants. This task is undertaken annually. The pollutants considered are:

- Carbon Monoxide
- Benzene
- 1,3 – Butadiene
- Lead
- Nitrogen dioxide
- Sulphur dioxide
- Particulates (PM10)

Halton's first review and assessment of air quality was completed in November 1999, (although air quality monitoring in the borough goes back to the 1960's) and these are followed up with new rounds of "updating and screening assessment" annually the last completed one being in 2006. These reviews have been submitted to the Government for scrutiny and the findings have been accepted. The assessment considers emissions from a range of sources such as transport, industry and domestic that could potentially affect local air quality. In assessing these emissions a number of tools are used including monitoring equipment (real time analysers and diffusion tubes), modelling of the major roads, and emissions data from the industrial sector.

The first "Review and Assessment of Air Quality in Halton" was published in November 1999. Its conclusion was that the air quality objectives for carbon monoxide, benzene, 1,3-butadiene and lead would be achieved and that the likelihood was that the objectives for sulphur dioxide, nitrogen dioxide and breathable particulate matter (PM_{10}) would also be achieved.

Further reviews are carried each year to satisfy ourselves and the government that the situation has not deteriorated and the most recent review carried out in 2006 has concluded that ambient levels of sulphur dioxide, nitrogen dioxide and breathable particulate matter (PM_{10}) remain below the Government's standards and that the Government's objectives for air quality are being achieved. Levels of carbon monoxide, benzene, 1,3-butadiene and lead have not deteriorated since the first review

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 and will only make a very small contribution to background levels of air pollution.

The by-products of the incineration process may contain hazardous or toxic pollutants and emissions will contribute to background pollution levels. Since 1996 there have been significant cuts in emissions from incinerators in order to meet strict European Union legislation. This has led to the phasing out of the older, more polluting plants as new emission and operation standards were introduced. As a result contemporary facilities are substantially less polluting and modern abatement technology will help reduce the hazard from emissions provided that the facilities are properly operated at all times.

The general public can be exposed to atmospheric emissions associated with incinerators through a number of routes, by direct inhalation and/or by indirect entry via the food chain. For many pollutants including some of the trace metals, and carcinogenic organic compounds, the major route of exposure is through the food chain. For example the majority (more than 90%) of non-occupational human exposure to dioxins occurs via the diet.

Air-monitoring data demonstrate that emissions from incinerators are not a major contributor to ambient air pollution. However, it will be up to the applicant and the Environmental Agency to assess the contribution to local pollutant levels on a site-specific basis. This level of detail will be addressed in the processing of the permit to operate the plant issued by the Environment Agency. Even at locations where background concentration is already high, incinerator facilities will most likely be permitted under IPPC so long as emission limit values are not breached, because the relative contribution of pollution from the incinerator is considered small. There should be a working assumption that the relevant pollution control regime will be properly applied and enforced.

In considering the effect that the proposed Energy from Waste Facility will have on air quality consideration needs to be given to:

- Operational effects
  - emissions from storage of waste material
  - emissions from the exhaust stack
  - emissions from operational vehicles
- Construction effects
  - emissions from construction vehicles
  - dust from construction activity

<u>Operational effects</u>

<u>Emissions from the storage of waste material</u>

The application states that the proposed Energy from Waste Facility will use fuel derived from municipal waste (Solid Recovered Fuel and Refuse Derived Fuel) as the main source of energy in the plant. However it will also

be designed to process biomass. Several questions were raised concerning the nature of the waste material as this can affect the combustion conditions and hence the emissions generated. Also there were concerns regarding odour from the storage of the material. RPS on behalf of INEOS has confirmed the specification of the fuel in terms of calorific value. This should ensure stable combustion conditions and thus consistent waste products and emissions. This will allow the abatement techniques that are to be employed to be designed to be effective and will be further examined in the any PPC application.

The material "will be delivered to the site in sealed containers or covered bulk transporters. The reception hall will be fully enclosed and the roller shutter doors will normally be kept in a closed position, save for when a vehicle is entering or leaving the unloading hall. The air within the unloading hall will form the primary air feed supply to the furnace and will be under slight negative pressure, ensuring combustions (and thus minimising the potential for emissions) of odorous gases and dust"

It has been confirmed that in the event that there is insufficient RDF to fill the plant, the facility will be used to burn other non-hazardous materials such as biomass. The nature of the biomass could include: shredded paper, wood pellets, wood chippings and crops grown purposely for their energy content. Thus the biomass material is not of a nature that would generate odours. RPS also comments "these are all natural products which contain no hazardous or potentially hazardous components". This is a detail that is likely to be and should be addressed by the PPC permit

The fuel to be used will require approval by the Environment Agency under the PPC permit. The permit will also cover conditions concerning the appropriate storage and handling of the fuel. It has been confirmed that no untreated municipal waste or waste material generated on the Runcorn site will be used as fuel.

It does however, have to be accepted that the creation of waste derived fuel is for the United Kingdom, a comparatively new technology and little historic evidence of quality is available

<u>Emissions from the exhaust stack</u>

In the application RPS state "The project has been designed to minimise pollutant emissions using appropriate abatement techniques and to ensure minimal air quality effects from residual emissions by release through a stack of an appropriate height."

Although RPS stated that: "The exhaust gases will be treated in the flue gas treatment system" no details of the proposed abatement systems were provided in the application. RPS was asked to provide further information on

the techniques that will be used to treat the emissions. In response they have stated that “There are a number of abatement techniques available for EfW plants . . . . . each of these techniques is capable of achieving the required emission levels defined in the Waste Incineration Directive . . . . typically this will include a three-stage process as follows:

- NO_x reduction: A selective non-catalytic reduction system would be utilised to assist in the reduction of nitrogen oxide in the flue gases by the injection of ammonia water into the boiler.
- Removal of Contaminants and Acidic Gases: The flue gases would pass through a scrubbing system which includes injection of hydrated lime and activated carbon to neutralise any acidity in the flue gases and absorb contaminants. The main types of scrubbing systems are dry and semi dry.
- Filtration: Further particulate removal would take place by passing the flue gases through bag filters”

Monitoring equipment will be installed to demonstrate compliance with the emission limits and to alert plant operators of any problems so that appropriate action can be taken. As the application states “A continuous emissions monitoring system will be provided for each flue. Each system comprises equipment to carry out measurements of the flue gases for particulates and chemical composition”. Monitoring the emissions will take place at intervals and in a manner specified by the Environment Agency under the PPC Permit. The emission limits will be those specified in the Waste Incineration Directive.

The height of the stack required to ensure effective dispersion of the residual emissions in the stack was determined using worse case assumptions (both in terms of the emission limits – taken to be maximum Waste Incineration Directive and in terms of prevailing weather patterns.) Two models were used to predict the required stack height. One model predicted that a stack height of 105m should suffice. However the other predicted a height of 115m. Due to aviation limits (the proximity of Liverpool John Lennon airport) the stack height was limited to 105m.

This decision, needed justification as one of the models suggested that a greater height was needed in order to ensure effective dispersion of the pollutants. RPS have since argued that the worse case scenario was used in the models and in reality the actual emissions are likely to be less than those that were used in the model. Also at the time of the original application the type of technology to be used had not been confirmed. It has now been decided that a Water-cooled Moving Grate system will be used. RPS have said that “The height of the proposed main building has subsequently been reduced to 42m”. The height originally proposed for the main building was 47m. As this is the largest building in the vicinity of the

stack the 5m reduction in height suggests a reduction of the required stack height. " In addition RPS state that "emission characteristics associated with this technology results in marginally improved stack momentum flux (higher volumetric flows and associated higher velocities)" A stack height of 105m was used in the dispersion model and the results of this predict that overall, the effect of the incinerator on existing pollution levels is neutral – slight adverse, using the criteria provided by RPS. As stated independent verification of the stack height is still awaited.

Dispersion models

In order to access the impact the proposed Energy from Waste Facility will have on air quality during operation, computer models have been prepared to simulate the dispersion patterns of pollutants from the stack. The dispersion models have allowed pollutant concentrations at various locations to be predicted, which can then be compared to both health based and ecological standards to predict the potential effects. RPS states that "The assessment has been undertaken in accordance with the Environment Agency guidance for detailed air dispersion modelling" and two models have been used.

The models have been developed using baseline conditions based on the current situation and the emissions from the proposed exhaust stack have been taken as the Waste Incineration Directive limits (as these are the maximum permissible concentrations that could be released). RPS state that "In reality, emissions from the EfW facility are likely to be less than the Waste Incineration Directive limits due to the effectiveness of the air pollution control system"

Parameters such as meteorological data and terrain have been incorporated. Meteorological data was taken from Liverpool John Lennon Airport

Background pollution levels have also been incorporated. This information has been obtained from a number of sources including Halton Borough Council monitoring data and national monitoring sites. Not all potential pollutants are monitored in every location. When attempting to assemble ambient air quality data it is often necessary in the absence of local data to go to the nearest available site. Some of the locations from where data was sourced were quite a distance from the site (for example the background levels of dioxins and furans has taken to be that measured in Manchester). RPS have since responded to these concerns stating that when choosing data to run the model the "worse-case" data has been used in the model.

It should again be noted that this modelling exercise is being independently assessed and the outcome of this will be reported to Members before any decision is made.

The ES acknowledges that there are future developments and lists them in technical appendix 4.1 the significant ones being Weston Point Docks, The Mersey Gateway and Liverpool Airport Expansion and these have been considered in the air quality assessment. Likewise the report acknowledges that there are a number of existing point sources of pollutants in the vicinity of the proposal, which could have a cumulative effect. The report assumes that because the existing industry has been in the area for so long, the emissions from these sources has shaped the background pollution levels. Therefore any background monitoring that has been done in the vicinity of the proposed site has already taken into account the contribution from these other sources and claim that the issue concerning "cumulative effects" of pollution with the existing industry in the areas has therefore been addressed. "Combined effects in the air quality assessment have been addressed through the selection of baseline ambient air quality data that already includes effects associated with existing industrial facilities"

Concern has been expressed in public response that consideration had only been given to PM_{10} Particulate matter and not to $PM_{2.5}$.this was brought to the attention of the applicant. RPS has argued that limits for PM_{10} have been achieved and there are currently no limits specified for $PM_{2.5}$ to which the levels predicted from the model can be compared. However, they have since re-run the model assuming that all particulate data is $PM_{2.5}$ and the results show that ground level concentrations are considered to be of neutral significance.

Air has tiny solid particles or fine liquid droplets suspended within it often called particulates. Usual concentrations are invisible but high concentrations can be seen as a haze, a mist or smoke especially when accompanied by condensing water vapour. The large majority are less than a hundredth of a millimetre across and are known as PM tens (PM_{10}). The fraction of the PM10's, which are less than 2.5 micrometres across and are called PM2.5's. There are many millions of PM10's suspended in each cubic metre of even clean air. The chemistry of suspended particulate matter is varied and depends upon the source and can contain carbon, nitrates, sulphates, metals, polycyclic aromatic hydrocarbons to name but a few. When coal or wood is burnt, many of the poisonous emissions start as vapour but quickly condenses onto surfaces such as the inside surface of chimneystacks or onto the surfaces of the suspended particles. General annual averages for UK cities are between 15 and 35 ug/m3 but less for many rural areas. Measurements of PM10 in Halton show an average of 24 ug/m3. By comparison Environmental tobacco smoke can expose an individual to anywhere between 17 and 5000ug/m3 PM 2.5's.

Since the original application was made to the Council air quality data gathered from around the Borough in 2006 has been assessed. Analysis of this data revealed that there were some areas where the levels for NO_2

were elevated due to road traffic and getting close to acceptable air quality standards. RPS agreed to undertake further analysis of the contributions from the proposed EfW facility to these areas. The results show that the emissions from the EfW facility would have little adverse effect on these areas.

As the proposed EfW is to be introduced into an area in which other industry is already present, it is necessary to determine what effect the proposed facility will have on existing dispersion plumes. In the original application the Weston Point CHP plant was considered and the results demonstrated that the proposed facility with have no effect.

RPS was asked to give consideration to other industry in the area. The response from RPS is that "UK government guidance indicates that tall buildings have the potential to affect dispersion from point sources out to a distance of five times the building height. In the case of the proposed EfW facility, the main building was assumed to be 47m. Therefore the dispersion of exhaust plumes from stacks within 235m of the EfW facility main building has the potential to be affected due to the proximity of the EfW facility. There are no other significant point sources within 235m of the EfW facility main building and therefore it is only relevant to include consideration of the Weston Point CHP plant Process stacks associated with the rest of the INEOS Runcorn site and other neighbouring industry are located well beyond 250m from the proposed EfW facility site and therefore exhaust emissions from other stacks are not likely to be affected by the project proposals"

Emissions from operational vehicles

RPS state that "The potential effects on ground level concentrations of NO_2 and PM_{10} due to changes in traffic have been assessed. The effects have been assessed for opening year of the project and compared to the relevant air quality objectives" "The effect on air quality due to the additional emissions from operational traffic is considered as being neutral"

RPS has agreed that monitoring of NO2 can be undertaken using diffusion tubes. "This will be carried out for a period of 12 months prior to and 36 post commissioning". This is a major construction operation and vehicle movements will be significant during this phase of the application. This is an area outside the PPC permitting process but has potential to impact locally on traffic related pollution emissions particularly NO2. The planning process needs to protect other adjacent land users and as such the applicant should be expected to put in place a detailed amelioration regime, which included monitoring throughout the construction phase including the effect of construction traffic.

Construction effects

Emissions from construction vehicles

RPS states "The potential effects on ground level concentrations of NO2 and PM10 due to temporary changes in traffic flows during the construction phase have been assessed. The effects have been assessed for the year of peak construction activity and compared to the relevant air quality objectives" "The effect on air quality due to the additional emissions from construction traffic is considered as being neutral"

This is a major construction operation and vehicle movements will be significant during this phase of the application. This is an area outside the PPC permitting process but has potential to impact locally on traffic related pollution emissions particularly NO2 and PM10. The planning process needs to protect other adjacent land users and as such the applicant should be expected to put in place a detailed amelioration regime, which included monitoring throughout the construction phase including the effect of construction traffic.

The accuracy of the traffic assessment was queried. If this was the case then it would be necessary to re evaluate if there would be any adverse effect on air quality as a result of the changes to traffic flow. RPS have since commented that in the original application the worst-case scenario was assumed and therefore the conclusions reached regarding the impact on air quality remain unchanged.

Dust from construction activity

The application states "Construction phase dust effects would be controlled through the Code of Construction Practice developed for the project, a draft of which is included in Appendix 2.3 of ES"

There are a number of sources of dust and emissions from construction activities that can release a range of particles. Dust – includes all particulate matter up to 75 micrometres in diameter and comprising both suspended and deposited dust Particulate matter includes a wide range of sizes and types of particles and will vary in composition from place to place and time to time. Most dust particles are too big to be inhaled but can cause eye, nose and throat irritation and lead to deposition on cars, windows and property. Emissions of particles and dust from construction can also have an impact on indoor air quality in the neighbouring area.

The potential for a demolition or construction site to impact at sensitive receptors is dependant on many factors, which include the following:

- location of the building site
- proximity of sensitive receptors
- whether demolition will need to take place

• extent of any intended excavation
• nature, location and size of stockpiles and the length of time they are to be on-site
• occurrence and scale of dust generating activities - including cutting, grinding and sawing
• necessity for on-site concrete crusher or cement batcher
• number and type of vehicles and plant required on-site
• potential for dirt or mud to be made airborne through vehicle movements and
• weather conditions.

Under Part III of the Environmental Protection Act (EPA) 1990, emission of dust, fumes and other effluvia from construction sites can be identified as a statutory nuisance if prejudicial to health or a nuisance. Control of a statutory nuisance is contained within section 80 and a local authority is under a mandatory duty to serve an abatement notice on the person responsible for the nuisance (or the owner or occupier of the premises on which the statutory nuisance is present) if it is satisfied that a statutory nuisance exists, or is likely to occur or recur.

Contaminated land

There are two elements of the land contamination issues that have a relevance to the proposed development and require appropriate consideration and supporting information. As a large industrial facility there is a potential for the proposal impact on land quality throughout its operational lifetime, and as the area already has an industrial past the site may pose an unacceptable risk to either the development or to the environment or the development may create new pathways for existing contamination.

As discussed the IPPC permitting process and subsequent monitoring and enforcement should ensure that there are no detrimental impacts on land and groundwater quality from the facility. If any degradation is identified the enforcing authority, the Environment Agency, will require the complete cleanup of the contamination.

In considering planning applications, the potential for contamination to be present must be considered in relation to the existing use and circumstances of the land, the proposed new use and the possibility of encountering contamination during development. In the Environmental Statement INEOS have acknowledged that the site has the potential to be contaminated and make reference to historical data available for the site and surroundings. INEOS intend to undertake a site investigation and detailed assessment of contamination risks prior to the commencement of construction.

However, national planning policy in relation to land contamination (Planning Policy Statement 23) states that where there is a reason to suspect contamination, such as the existence of former industrial uses, there should normally be a desk study of the readily-available records assessing the previous uses of the site and their potential for contamination in relation to the proposed development as a minimum. If the potential for contamination is confirmed, further studies by the intending developer to assess the risks and identify and appraise the options for remediation should be required.

The lack of a detailed assessment of the potential contamination has been questioned by the Council and, in the response prepared by RPS on behalf of INEOS, it is acknowledged that the information provided to date is only preliminary and that a detailed investigation, assessment and management plan would be developed in advance of construction. However, INEOS consider that this can be address through applying conditions to any planning approval.

The guidance in PPS 23 states that further investigations and risk assessment will be needed if this initial assessment does not clearly and reliably demonstrate that the risk from contamination is acceptable. Where the desk study and site reconnaissance do not provide sufficient information to assess the risks and appraise remedial options, further investigations will need to be carried out before the application is determined.

In consideration of the above points it is recommended that the applicant provides the appropriate information to allow the comprehensive and robust assessment of land contamination risks to be undertaken, in line with the appropriate guidance and best practice, before it determines the application. If remedial measures were subsequently required it would be anticipated that these works could be controlled by conditions to any approvals.

Noise & Vibration

It is recognised that control of noise is achieved primarily through environmental protection legislation and implementation of the legislation will usually fall to the Local Authority and to the Environment Agency. The planning permission should not seek to duplicate such controls. However, the planning system has a role to play in preventing and minimising the impact of noise through its influence over the location and design of new developments. For new proposals, planning conditions are still likely to be necessary to control issues that may not be covered by IPPC. Where appropriate, planning conditions should be attached to planning permissions, which would reduce the adverse impact of noise and enable development.

Noise and vibration are included within the definition of “emissions” as set out in the Pollution Prevention & Control (PPC) Regulations. Conditions will need to be included within the Permit for the control of noise, as appropriate to the specific situation. IPPC requires the use of BAT in setting emission limit values or equivalent parameters, and in determining conditions relating to process parameters or technical measures. The aim of BAT should be to achieve the following:

- underpinning of good practice, a basic level of which the Operator should employ for controlling noise, including adequate maintenance of any parts of plant or equipment whose deterioration may cause increases in noise. For example, this would include bearings, air handling plant, and the building fabric as well as specific noise attenuation measures associated with plant, equipment or machinery;
- noise levels should not be loud enough to give reasonable cause for annoyance to persons in the vicinity, which is a more appropriate environmental standard than that of Statutory Nuisance and is normally the aim of most planning or other conditions applied by local authorities;
- prevention of creeping ambient (often referred to as creeping background), which is the gradual increase in ambient sound levels as industry expands and areas develop.

Simple predictions of noise can be based upon relatively straightforward equations and principles. However, detailed noise prediction and modeling requires the use of computers and commercially available prediction or mapping software. Noise predictions can be useful at a proposed facility where noise must be quantified to ensure that no noise problems will arise from the installation once it is operational, For new plant, clear targets may be needed to ensure that noise emissions do not contribute to a creeping background (ambient) sound level. In the case of new plant, sound levels should be predicted and modeled. Monitoring for subsequent compliance may be required and this may result in the need for additional noise reduction measures. For new plant, IPPC should, in most cases, come to the same conclusion to provide adequate protection of the environment. Theoretically, a situation might arise in which the Agency believes that the balance of costs and benefits, or the balance of cross–media impacts, cannot justify such conditions. In these unusual circumstances, the IPPC Permit may contain conditions that are less strict than the planning conditions.

Noise assessments were carried out of the existing daytime and night-time noise environments at the nearest noise sensitive receptors (NNSRs) and comparisons drawn the future noise levels that would be expected to occur, at those locations, should the EfW facility be constructed. Existing noise levels were determined by a field study as per accepted procedure.

The Council has carried out similar surveys that show the background levels in the same range as the RPS survey findings.

Various measures are proposed by the developer will be adopted to attenuate noise levels to ensure that noise levels in the external and internal general plant areas do not exceed HSE requirements, and acoustic barriers will be used along the access roads to minimise noise generated by vehicle movements.

Construction would be anticipated to be three and a half years excluding site clearance. It includes Demolition of existing buildings, ground excavations, including piling, building construction and equipment installation; and nighttime concrete pours. Working hours being restricted but requiring some 'out of hours' work to be carried out with prior consent from the council. Normal construction hours are stated as being 07:00 to 19:00 hrs five days a week.

The applicant has confirmed that typical areas of out of hours working could include the following:

- Continuous concrete pours;
- Major crane lifts / erection sequences;
- Delivery of large or abnormal loads;
- Radiography of welds / pressure testing of equipment;
- Commissioning'

This is an inevitable consequence of large-scale construction sites, has the potential to cause nuisance, and requires strict controls and procedures for contractors, which are available under separate legislation if not conditioned by planning. It is not possible for a definitive list or programme to be provided for the project at this stage; however any out of hours work would be carried out following consultation with the Council.

The only construction source that has potential to give rise to significant vibration effects is driven piling. Due to the hammer energies, which will be utilised, and the distance of the works from residential buildings, it is considered unlikely that there will be any significant vibration effect to occur during the construction phase of the project and no mitigation would be required.

Construction traffic

Noise effects of all construction traffic has been considered and results of the assessment indicate that a significant noise effect would not occur as a result of construction traffic using local roads. The noise effect on Picow Farm Road has been predicted to be 1dB during building construction and earthworks and 2dB during concrete pours, which are not considered to be

significant noise effects. No noise change is predicted for Expressway North or South for any scenario.

Commissioning

Some activities associated with the commissioning of the plant are likely to give rise to high noise levels. These activities would be these activities are temporary and of a very short duration be undertaken during normal daytime working hours and, where practicable, using silencers to minimise the noise emissions.

Operational Effects

The results of the BS4142 assessment indicate that the design criterion would be satisfied and the significant adverse noise effects would not be expected to occur as a result of the development during the daytime or nighttime at any of the NNSRs.

Consideration was asked to be given to the equipment which will be used to make up the plant in relation to vibration due to concerns raised from previous experience with power generating plants in the Borough i.e. Rocksavage Power Station

The applicant has responded that the proposed EfW facility is not likely to give rise to low-frequency noise emissions similar to those from Rocksavage Power Station because:

- The EfW plant has a quieter combustion process than that of a Combined Cycle Gas Turbine (CCGT) power station;
- Noise from the EfW combustion process is attenuated but he boiler and flue gas treatment (FGT) equipment, which provides greater attenuation than that for a typical CCGT power station which relies largely upon the heat recovery steam generators (HRSGs) for attenuation; and
- The proposed EfW is significantly smaller, with an electrical capacity of 100MW, than Rocksavage power station, which has a capacity of 748MW

Following an appraisal the applicant has asserted that HBC's concerns regarding low-frequency noise from the proposed EfW are likely to be unfounded.'

Noise change assessment

The results of the assessment of both the static and mobile noise sources indicate that a significant adverse noise change would not be expected to occur at any of the NNSRs during the nighttime nor at the majority of the

NNSRs during the daytime. However there is predicted to be minor adverse effect to properties on Clarks Terrace that has been considered an acceptable effect as the noise change would only occur during the daytime and therefore would not affect sleep.

Noise from Operational Traffic

The Transport Assessment has provided the predicted future traffic flows for 2011 and 2026 and for the cumulative effect situation with the project with other committed development. This indicated that a significant noise effect would not occur as a result of increased traffic flows.

RPS final statement and details of further mitigation ES (para '9.48**)**

The assessment has indicated that a minor adverse noise effect would only be expected to occur at approximately 15 properties on Clarks Terrace, to the south of the facility during the daytime. The project design includes a noise barrier along the southern boundary. It is considered that it would not be practicable for this barrier to be any higher and, therefore, no further mitigation has been proposed. For the majority of NNSRs during the daytime and for all of the NNSRs during the nighttime, no significant effects have been predicted and no further mitigation would be required.

Transport

Access is taken via Mersey View and South Road, from Sandy Lane. All these streets are residential roads and are not suitable for a significant increase in HGV traffic.

Sandy Lane connects to Picow Farm Road at a simple priority junction. This in turn links to the A557 Weston Point Expressway by way of a 2 level junction. To the South of the junction is junction 12 of the M56, and North to the Silver Jubilee Bridge over the Mersey and on to Merseyside or the M62.

There is a single-track rail access to the site from the West coast main line at Runcorn Station, there are a number of sidings of this track, and there are proposals for a new link to the Port of Weston.

To the West of the site is the Manchester Ship Canal the Weaver navigation and the disused Runcorn and Weston Canal all offering possible berthing points.

The new proposal is to provide access to the new and existing Industrial activities from a new access road from Picow Farm Road allowing alterations to be made to the highway network to reduce the problems caused by HGV traffic on Weston Village.

The exact design and alignment of this new access needs to been finalised. Discussions are progressing between INEOS, Port of Weston and Halton Borough Council to resolve the outstanding issues.

The Construction phase

The construction phase of the project is expected to be completed with 3 years. There is potential for overlapping during theses operations, and the exact workings are not fully known at this stage, and the traffic generation and distribution are based on' most likely case' and assumes worst case scenarios. Any transport impact during the construction phase is likely to be of a temporary nature and will need to be managed by the client and the contractor as part of the construction contract in liaison with the Council.

The civil phase

This would require on average approximately 100 construction staff generating 124 movements a day, and 100 HGV movements a day. During the later part of this stage there will be a short period of concrete pouring as detailed below.

Concrete slip forming

This work will require continuous 24 hour working, for short periods of time. These short periods are unlikely to exceed 4-5 days although it is possible that during the construction of the largest building on site concrete pouring may continue for approximately 2 weeks. The number of concrete wagon associated with this phase is around 150, creating 300 movements in the 24 hour period, 13 movements per hour. Also there will be a requirement for a number of other HGV movements of during this time approximately 100 over 12 hours. Creating a total of up to 21 HGV and concrete wagon movements per hour. It would appear from the report that this phase would occur during the latter part of the civil work stage (T.A 3.3),

Plant erection phase

This phase of the operation requires the most staffing with a figure of up to 750 construction workers, this would generate approximately 930 movements a day, during the busiest periods of construction

Impact on highway network

The following table as supplied by the applicant shows their worst case traffic generation for the construction period.

Table 1

	0600-0700			1900-2000			Daily		
	Arr	Dep	Tot	Arr.	Dep	Tot	Arr	Dep	Tot
Max. Car Movements	465	0	465	0	465	465	465	465	930
HGV's	7	6	13	6	7	13	200	200	400
Total	472	6	478	6	472	478	665	665	1,330

It should be noted that the applicant assumes that all the construction workforce will be on site before 07.00 and will leave after 19.00, and although these figures show a large percentage increase for the Silver Jubilee Bridge these increases occur outside the normal peak and so should have little impact. However, movements need to be managed to ensure they occur outside the peak.

The assessment assumes certain measure can be implemented to manage traffic demand. The present measures included, within the transport assessment, are the use off existing INEOS car parks with traffic directed away from the residential area of Weston and connected to the site by shuttle buses.

Operational phase

The calculation set out in the Transport Assessment assumes that 480,000 tonnes of waste is transported by road to the site. This represents the worst case amount based on the assumption that all waste that does not come from Manchester comes by road and that the upper throughput figure is 850,000 tonnes of waste per year. Additional to the waste to be burnt a number of other HGV movements will be required to transport materials to the site and remove waste from the site.

All deliveries are to be routed from the expressways along Picow Farm Road onto a new access road into the site, taking away all HGV movements from Weston village. Table 6 of the T.A indicates 384 HGV movements a day, this is two way 192 in and the same out over a 12 hour period, 16 HGVs in per hour one every 4 minutes in. This will then distribute onto the expressways either North or South. This gives a daily impact on the expressways of 3% or less dependent on the North South split. This is not considered significant, however a contribution for minor highway improvements is required.

Rail link for waste deliveries

Transport of waste to the site from Manchester is proposed by rail, and it is the intention of INEOS to encourage all other the relevant local waste authorities to include obligation for transport fuel by rail during their MBT contract placement process.

Rail access is included in the T.A. This states 6 rail sidings are available to accommodate fuel deliveries, waiting and unloading. The reports state 5 trains per day will deliver fuel to the site, 3 from Manchester and up to 2 trains from other sources.

Discussions between INEOS and Network Rail identify the need for some improvements to the signalling on the branch line may be required. Regarding the capacity of the rail network, the applicant has identified no major obstacles, however, there are no details of expected delivery times, which may have to be made during the night.

Transport of hazardous waste from the site

The Transport Assessment shows that there will be up to 20 vehicle movements per day associated with fly ash and reaction products, which will need to be transported to the hazardous waste site at Randle Island. The route to Randle Island is Picow Farm Road to the Expressway, leaving at the Astmoor junction and travelling over the swing bridge via Astmoor Road.

Employee travel demands

The assessment projects that staffing level at the plant will be 50 employees providing 24-hour cover. This posses no significant impact on the highway network, however measures to provide sustainable travel options should be further explored, this should part of a travel plan. Cycle parking spaces are to be provided within the site, changing and shower facilities should also be provided. The Transport Assessment does not identify any improvements for the pedestrian and cycleway network. These can be conditioned.

As INEOS Chlor is making this application and this company employs more than 100 people and does not at present have a travel plan, a condition that they enter into a Travel Plan is required. This should also include the entire Runcorn site including INEOS enterprise, INEOS Fluor and other components.

Merseyside Advisory Service (MEAS)

The Merseyside Advisory Service advises the Council on environmental management. MEAS raised a number of questions and outstanding issues, with the original documentation. The applicant has since provided further clarification on the questions raised by MEAS. MEAS have commented that

a number of concerns originally expressed have now been addressed by the applicant, but still advise that:

- The Council should consider that the failure of Merseyside's waste to meet the specification for the proposed facility could lead to Merseyside becoming a significant long-term importer of waste;
- An expanded response in relation to the type of technology to be used would be helpful. They accept that the choice of technology does not materially affect the conclusions reached in the Environmental Statement; and
- A Great Crested Newt survey should be made available prior to determination.

MEAS are generally supportive of proposals, that seek to recover energy from waste efficiently, as they have the potential to increase sustainable waste management practices according to the waste hierarchy, while at the same time supporting increased energy generation from renewable sources as promoted by the energy hierarchy and reducing demand for primary fossil fuels.

MEAS comments can be found in Appendix 6.

CONCLUSION

There are clearly many matters which need to be considered in the assessment of proposals, such as that now the subject of this consultation. As explained within the body of the report many relate to controls which are imposed through other licensing and authorisation regimes and are not for Local Planning Authorities (LPA) to impose control. However, there are equally as many material considerations and issues which are for the LPA to properly satisfy itself upon.

These considerations include the range of physical and visual impacts which Members are often asked to consider when dealing with major infrastructural proposals, such as appearance, traffic generation/movement, environmental controls over noise and dust etc and the positives which come from large scale investment on the local economy. In respect of this particular proposal, however, the single most important issue is that of the impact the proposal may have on the health and general well-being of the residents of Halton and the surrounding areas. With this in mind the views of the Director of Public Health/ and PCT are considered particularly pertinent.

In general terms, it can be concluded that the facility proposed by INEOS and for which they have shown there are compelling business efficiency reasons to support, would help towards the Governments targets for waste

management. It also needs to be acknowledged that whilst public health concerns are legitimate considerations, that modern well run, well regulated waste management facilities operated in line with the latest guidance and controls pose little risk to human health. It is also advised that planning authorities should work on the assumption that relevant pollution control regimes will be properly applied and enforced. The supporting documentation provided by INEOS, with the consultation and subsequently, seek to ensure that stringent environmental and pollution control regimes will all be in place and indeed have to be before the plant can operate. As such, the justification and evidence put forward by INEOS does not ask the Council to make a judgement between a substantial infrastructural investment, and all of the stated benefits that will bring and the health and well-being of it's residents, but rather seeks to ensure that the development will have very few adverse impacts upon the Borough.

This general assumption is based upon known and measurable factors, and also on assumptions which in some ways are not within the control of INEOS. One major and significant and as yet not clearly defined impact will be the movement of fuel in and out of the Borough. The entire facility success is premised upon the delivery of fuel derived from municipal waste, at a time when most of the regions waste authorities have yet to procure and determine how they are to process their waste and equally where these process will take place.

The INEOS case makes certain worst case scenarios to address this issue and conclude that there is capacity and flexibility within the proposal, in its widest sense, to adapt to these uncertainties.

In reality this leaves a gap in information as to the precise method of fuel movement, its direction of travel and the impacts that may have on Halton's roads and rail infrastructure and the environmental impacts of such movement. This gap in information will no doubt in time evolve and as such can be re-assessed at a later date, as such, it may well be considered appropriate to control by condition should the DTI be mindful to authorise the proposal. A particular need to establish what rail capacity there is and during which hours of operation this capacity is available is important if for instance hours of delivery etc were to be controlled as part of the process. Notwithstanding, that the time multi-model nature of fuel delivery cannot be known at this stage, it is generally accepted by both the rail operator and highway authority that there is with appropriate improvement and conditions, overall capacity.

One particular aspect of transportation movement which did originally give rise to concern was that relating to the movement of fly ash from the proposed site to Randle Island landfill site. This issue related to the potential for hazardous material to become airborne in transit, however, INEOS have

now confirmed that this product will be dampened down to prevent such an eventuality.

Returning to the comments of the Director of Public Health. This confirms Governments advice that contemporary incineration facilities are less polluting and that modern abatement technology will help reduce the hazard from emissions provided the facility is properly operated. However, attention is also drawn to the fact that INEOS does not identify any significant concerns regarding particulate emissions, an assertion which could not be verified without operational data. The report further states that the Committee for Medical Effects of Air Pollution have recently concluded that there are clear associations between daily and long term average concentrations of air pollutants, in particular fine particles and the effects on the cardiovascular system, and in this regard a precautionary approach should be taken in future planning.

The recommendation within the report ask that the DTI consider requiring the applicant to quantify the effects of the additional particulate air pollution generated on the health of residents of Halton: that a Health Impact Assessment be commissioned and that the movement of dry dust is controlled. This later point has already been addressed and could be appropriately conditioned. Having regard to Halton's historic health records the first two recommendations seem reasonable and justifiable. Both matters could be conditionally required as part of the approved process.

As mentioned earlier in this report there are many areas of work, both during the construction period and after commissioning which would need to be properly controlled by conditions. Therefore to assist the DTI and to address a number of the concerns properly raised throughout the process it is recommended that if they are mindful to approve the application then the conditions suggested in Appendix 7 are attached to any decision given.

In addition to these suggested conditions, it would also be appropriate and necessary for INEOS to enter into a planning obligation with this Authority to address area of mitigation which cannot properly be covered by planning condition. Generally this obligation would look to provide off site environmental improvements and assurances.

Clearly, the proposal has proven to be particularly emotive and as can be seen from the volumes of information included with this report has given rise to much comment and in many areas contradictory evidence. In the absence of many years of work and much more research some of the points raised may never be possible to answer. However, it is recognised that the DTI have to make a decision on the application and that Halton's comments are an integral part of that process. From the above commentary, Members will see that various concerns have been expressed about the need to

provide further information before the DTI makes a decision and it is agreed that, that should be the case.

It is therefore recommended that:-

RECOMMENDATION

1.This application raises a number of important and complex issues. The Council and its consultees, including the Primary Care Trust, have given due consideration to these issues and the views of local residents. The Council would wish the Secretary of State to address the issues raised within the attached report and ask that the Secretary of State is fully satisfied that the proposal will not have any adverse impacts upon the health of the Boroughs residents before authorising the proposal. Particular attention is drawn to the observations of the Director of Public Health and the request for further information made therein.

2. If the Secretary of State is minded to approve the application then he is requested to consider the imposition of conditions as set out in appendix 7 and the need for a Section 106 agreement between the Local Planning Authority and Ineos.