



Planning for Risk

Draft Supplementary Planning Document

December 2008



Halton Borough Council

Planning for Risk

Draft Supplementary Planning Document
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This guidance note should be read in
conjunction with the relevant policies of the
Development Plan.

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I Purpose and introduction

Purpose

- 1.1 The purpose of this Supplementary Planning Document (SPD) is to:
1. complement and expand upon policies set out in the approved Halton Unitary Development Plan (UDP) by providing additional and more detailed policies for:
 - deciding how new developments which create significant potential off site accidental risks should be balanced against the benefits they will bring;
 - deciding how new developments, in areas already exposed to significant existing potential accidental risks, should be balanced against the benefits they will bring, and;
 - 2 explain in more detail how UDP policies should be interpreted.
- 1.2 The reduction in the potential for certain land uses (hazardous installations and Liverpool Airport) to create harm through accidents to people or the environment outside the boundary of these land uses is a sustainable objective of this SPD as is the improved potential to create a safe, healthy and prosperous economy, environment and society.

Introduction

- 1.3 There are two types of land use development which the Council's UDP has defined as providing the potential for significant off site accidental risks:
- sites (and pipelines) which hold or handle sufficient quantities of potentially dangerous chemicals as defined by the

COMAH or pipeline regulations to have the potential for significant off site accidental risks; and

■ Airports.

- 1.4 Halton is affected by the Public Safety Zone and wider flight path from Liverpool John Lennon Airport. It is also affected by a significant number of hazardous installations and pipelines. All these sites are identified in appendices to this SPD document.
- 1.5 Section 4 policies for risk creating sites (paragraphs 4.3 & 4.11) in this SPD apply to any part of Halton where new proposals are put forward for Hazardous Substances Consent (HSC). However, for the vast majority of planning application determinations affected by this SPD (see policies for development around risk creating sites in section 5), the geographical coverage of its policies will be confined to the sites already defined in the document and the consultation areas surrounding them. There is no detailed policy for major accident risk issues at Liverpool Airport itself, because it lies outside Halton Council's area. However, any proposal for airport development within Halton that raised off site major accident risk issues would automatically be considered within Strategic Policy S5's general criteria and justification and an appropriate policy is included in this SPD (see policy 4.8).
- 1.6 Where documents are referred to in this SPD references can be found in Appendix F.

2 Policy Background

European & National policy background – hazardous installations & pipelines

- 2.1 Most recent European Union legislation in respect of planning related matters special to the subject of hazardous installations derives from the land use planning requirements of the Seveso II Directive (96/82/EC) as amended by Directive 2003/105/EC. The aim of the Directive is to prevent major accidents which involve dangerous substances and to limit their consequences for man and the environment. European legislation relating directly to these matters started in 1984. Separate UK legislation started in 1982.
- 2.2 The Control of Major Accident Hazards Regulations 1999 (COMAH) and the Planning (Control of Major-Accident Hazards) Regulations 1999 came into force on 1 April 1999. Part of their statutory powers are derived from the Planning (Hazardous Substances) Act 1990 wherein lies the original power establishing Hazardous Substances Authorities (HSA) and the requirement on site operators to apply for Hazardous Substances Consent (HSC). The Planning (Hazardous Substances) Regulations 1992 set out the regulatory requirements for applying for HSC's.
- 2.3 The COMAH Regulations were amended by the Control of Major Accident Hazards (Amendment) Regulations 2005 on 30 June 2005. All these regulations implement the Seveso II Directive, as amended by Directive 2003/105/EC. HSE advice around sites relates to all those sites with Hazardous Substances Consents, not necessarily only COMAH sites. This is because some HSC's do not reach the thresholds that bring sites within the main COMAH legislation (for example liquified petroleum gas has different thresholds). The use of the phrase "hazardous installation" is therefore generally used in this document.
- 2.4 Government planning policy guidance on these matters is contained in DETR Circular 04/2000 (Planning Controls for Hazardous Substances) including the requirement to consult the HSE both on new HSC's and on new development proposals around existing sites. In the latter case consultation occurs utilising the HSE's PADHI consultation system (see paragraph 3 of Appendix E).
- 2.5 Pipelines (as defined under the Pipelines Safety Regulations 1996) which hold or handle sufficient quantities of potentially dangerous chemicals are not defined by the Control of Major Accident Hazard (COMAH) regulations. However, they fall within the remit of this SPD where they are potentially hazardous pipelines generating consultation processes between the local planning authority and the Health & Safety Executive (HSE). They are described in this SPD as hazardous pipelines.
- 2.6 DETR Circular 04/2000 (paragraph 47) and PPS12 (Annexe B, paragraphs B17 & B18) together provide national planning policy guidance for the implementation of the requirements of Article 12.1 of the SEVESO II Directive. Regulation 20 of the Town and Country Planning (Development Plan) (England) Regulations 1999 requires that in formulating their general policies in Part I of a Unitary Development Plan, local planning authorities shall have regard to the objectives of the Directive. These are:
 - to prevent major accidents and limit the

consequences of such accidents for man and the environment;

- in the long term, to maintain appropriate distances between establishments and residential areas, areas of public use and areas of particular natural sensitivity or interest; and,
- in relation to existing establishments, for additional technical measures so as not to increase risks to people.

2.7 Local Planning Authorities are required to seek advice from the HSE and Circular 04/2000 makes clear that “In view of their acknowledged expertise in assessing the off-site risks presented by the use of hazardous substances, any advice from HSE that planning permission should be refused for development for, at or near to a hazardous installation or pipeline, or that hazardous substances consent should be refused, should not be overridden without the most careful consideration.”

2.8 For a period of over 15 years Halton Council has liaised closely with the HSE on Development Plan matters, first in relation to the Halton Local Plan (published in 1996) and then in relation to the Unitary Development Plan (published in 2005) and its successor the Local Development Framework. The policies in the current statutory UDP document have been the subject of lengthy and substantial discussions over a number of years including various opportunities for representation and comment (see Appendix A for an extract of all directly relevant parts of the UDP).

2.9 As a result of the special experience and expertise of Halton Council risk based land use planning policies have become statutory planning policies within Halton even though these approved policies differ from national advice given by the HSE to

local planning authorities. Appendix B deals with these matters in more detail. Advice from the HSE nationally is sometimes hazard based (i.e. the consequences of an accident event happening) rather than risk based (i.e. the likelihood of an event actually happening). HSE advice is also based upon the “risk of dangerous dose” to people involving distress as well as the risk of fatalities. Halton’s policies are based more simply on the risk of an accidental death, which is the same basis as is used for public accidental risk policies around Britain’s airports.

National policy background – Airports & Public Safety Zones

2.10 Government guidance on development within airport Public Safety Zones (PSZ) is contained in DfT Circular 01/2002 (Control of development in airport public safety zones) and the Town and Country Planning (Safeguarding Aerodromes etc) Direction 2002. This Direction is an annex to joint circular 1/2003 (from ODPM & DfT) and mainly deals with safeguarding issues associated with developments which might affect aircraft safety.

2.11 The basic policy objective governing the restriction on development within civil airport PSZ’s is that there should be no increase in the number of people living, working or congregating in PSZ’s and that, over time, the number should be reduced within the PSZ as circumstances allow. There is no policy restriction related to accidental risk affecting land use planning outside of the PSZ.

Regional context and UDP Sustainability Issues

2.12 One of the core principles of Regional Planning for the North West (RPG13),

which was the Regional Spatial Strategy (RSS), was policy DP2 relating to enhancing the quality of life. Also of some relevance was EC5 (regional Investment Sites), UR4 (Setting Targets for the recycling of land and buildings), and EQ1 (Tackling derelict land and contamination issues).

2.13 RPG has recently been formally superseded by the new RSS. There are no substantial new matters contained in this document that would affect this SPD.

2.14 The Halton Unitary Development Plan (UDP), which was adopted in April 2005, contains strategic aims and objectives set out in Part I of the UDP. In relation to Major Accident Land Use Risks policy S5 sets out the policy that creates a sustainable balance between public and environmental protection from possible accidents and the need to allow development to continue in a sustainable way. At the centre of these strategic aims and objectives is the desire of the Council to create sustainable places that all people will want to live and work in.

2.15 Part 2 of the UDP contains policies that seek to implement the broad aims and objectives contained within Part I of the UDP Plan. The proposed Planning & Risk SPD is intended to support Policies S5, PR9, PR11 and PR12 by:

- detailing how new developments which could create significant potential off site accidental risks should be balanced against the benefits they will bring
- detailing how new developments in areas already exposed to special existing potential accidental risks should be balanced against the benefits they will bring

2.16 The UDP was subject to a SA at two key stages in its production. These were the

UDP First Deposit and Second (Revised) Deposit stages. This process has helped to ensure that the policies that this SPD is based upon contribute towards achieving sustainable development.

2.17 The reduction in the potential for certain land uses (hazardous installations and Liverpool Airport) to create harm through accidents to people or the environment outside the boundary of these land uses is a sustainable objective of this SPD. The improved potential to create a safe, healthy and prosperous economy, environment and society is also a sustainable objective.

2.18 For all the reasons set out above and explained in detail in Appendix B, Halton Council considered it was both reasonable and proper to complete its detailed policy document (this SPD) in accordance with both adopted UDP policies and current national planning policies related to accidental risk.

2.19 The UDP and its policies will, in due course, be superseded by other planning policy documents in accordance with the Council's Local Development Scheme. All policies directly relevant to this SPD have been "saved" in accordance with the LDS and are therefore still operational for planning policy purposes.

3 Guiding Principles

3.1 The guiding principles behind the detailed policies in this SPD are:

- Acknowledging that Halton Council as local planning authority considers 10 chances in a million (cpm) risk of accidental death in one year to be the significant level of off site risk in relation to the potential accident effects on the areas surrounding major accident hazards.
- Imposing a powerful but reasonable pressure on those responsible for the sources of major accident risks through policies to improve these levels of safety further, whenever opportunities arise (for those sites within the responsibility of Halton Council as Local Planning Authority).
- Imposing appropriate constraints on development opportunities near to these potential major accident hazards.

3.2 Appendix B to this SPD sets out a more detailed analysis and explanation of the background issues underpinning accidental risk assessment and acceptability, including societal risk and the interaction with planning blight, urban regeneration and the re-use of previously developed land.



4 Policies for Risk creating sites and their detailed interpretation

4.1 Policies in this section are summarised, together with their UDP policy derivations, in appendix G. In this section policies are divided into:

- Policies for development at existing hazardous installations, and;
- Policies for development at completely new airport or hazardous installations

In determining planning applications under these policies, the Council will consult with and take account of any advice received from the Health and Safety Executive, the Environment Agency and other appropriate statutory organisations. There are, effectively, 12 sites within Halton designated under the COMAH regulations or similar legislation. There are also two hazardous installations outside the borough whose planning consultation zones affect Halton. There is one airport (Liverpool) outside Halton which affects the borough for planning consultation purposes. There are 5 pipelines or pipeline networks designated as major accident hazard pipelines. There is no airport site present within the Borough. All these potential major accident risk land uses are identified in Appendix C.

Policies for development at existing sites designated under the Planning (Control of Major-Accident Hazards) Regulations 1999 or similar legislation or major accident pipelines

4.2 Liverpool Airport lies outside Halton Council's area and is therefore a matter for Liverpool City Council as local planning authority. There is therefore no policy for major accident risk issues at the existing airport itself in this SPD.

4.3 Development within a designated hazardous installation or which is a development of an existing hazardous pipeline will be permitted provided:

- the applicant can demonstrate the proposal will impose no significant development restrictions in terms of off-site accidental risk on surrounding land users, and;
- the applicant can demonstrate the proposal has no reasonable alternative method of achieving the development's objective.

4.4 "Significant development restrictions" are defined as those that increase the extent of any existing off site individual accidental risk of death contour of 10 chances per million (cpm) per year, as a result of a proposed hazardous installation or pipeline development. Where levels may exceed 100 cpm the operator would be expected to take steps to remove surrounding developments before consent could be granted.

4.5 The policy interpretation context for both types of policy restriction is referred to in paragraph 5.4 below. However, the

additional factors outlined in Appendix B paragraph 24, (e.g. that calculation methodology errs on the side of caution), make it logical to err on the side of caution in applying such policies. This must therefore be taken into account in coming to a policy view on the off site effects of any new development proposal within a designated establishment.

- 4.6 Policy 4.3 applies not only to applications for Hazardous Substances Consent (HSC) on existing sites but also to any applications for planning permission on those sites. "Development" covers not only those hazardous substances identified in COMAH legislation but also those circumstances which are included in the definition of development contained within Planning legislation and requiring planning permission (e.g. the means of access to a classified road). It is essential to control development related to major accident risk sites through policies to improve these levels of safety further, whenever such development proposals arise.
- 4.7 Because the processing and storage of hazardous substances means there is an

increased possibility of a major accident, it is always necessary to ascertain if there is a reasonable alternative. It is essential to control development related to major accident risk sites through policies to improve these levels of safety further, whenever opportunities arise (e.g. improvements in safety technology, safer site locations in terms of effects, expanded site boundaries to improve security and control over accident effects)

Policies for development at new sites for Airport Development or new sites designated under the Planning (Control of Major Accident Hazards) Regulations 1999 (COMAH) or hazardous pipelines

4.8 In deciding any proposal for airport development within Halton one of the tests will be that the applicant can demonstrate the proposal will impose no significant development restrictions in terms of off-site accidental risk on surrounding land users.

- 4.9 Policy S5 in the UDP (Major Accident Land



Use Risks) is the strategic policy for major accident risks under which new airport related development should be considered. This is, however, only one of many Development Plan policy considerations under which such developments would be considered including the interrelationship between Halton's Development Plan and Liverpool City Council's Development Plan. It is likely that any airport development within Halton will be related to Liverpool Airport which is primarily located within Liverpool City Council's area.

- 4.10 Significant development restrictions are defined as an individual accidental risk level of 10 chances per million per year as a result of a proposed airport development (where levels may exceed 100 cpm see paragraph 5.4).

4.11 New hazardous installations or pipeline proposals will be permitted provided:

- **the applicant can demonstrate that the proposal will impose no significant development restrictions in terms of off-site accidental risk on surrounding land users, and;**
- **the applicant can demonstrate the proposal has no reasonable alternative method of achieving the development's objective**

- 4.12 "Significant development restrictions" are defined as an individual accidental risk level of 10 chances per million per year as a result of a proposed hazardous installation or pipeline development. This risk level must also take into consideration any other established hazardous installations or major pipelines nearby. Where levels may exceed 100 cpm the operator would be expected to take steps to remove

surrounding developments before consent could be granted.

- 4.13 The policy interpretation context for both types of policy restriction is referred to in paragraph 5.4 below. However, the additional factors outlined in Appendix B paragraph 24, (e.g. that calculation methodology always errs on the side of caution), make it logical to err on the side of caution in applying such policies. This must therefore be taken into account in coming to an informed policy view on the off site effects of any new development within a designated establishment.
- 4.14 Because the processing and storage of hazardous substances means there is an increased possibility of a major accident it is always necessary to ascertain if there is a reasonable alternative (see paragraph 4.7 above).
- 4.15 In interpreting the 5 policies contained within this section it is essential to examine the detailed potential off site consequences by reference to the policies in section 5 below.

Policy for Inactive Hazardous Substances Consent

4.16 Sites which have Hazardous Substances Consent and which are inactive will be revoked.

- 4.17 The Council will revoke existing inactive HSC's where there will be no resulting compensation. This will help clarify that there is no continuing accidental risk issue, will removed unnecessary HSE planning consultation zones, reduce unnecessary administrative burdens and help improvement investment confidence.

5 Policies for Development around Risk creating sites and their detailed interpretation

5.1 Policies in this section are summarised, together with their UDP policy derivations, in appendix G. In this section policies are divided into:

- Policies restricting developments around Liverpool Airport within the Public Safety Zone and;
- Policies for restricting developments around established hazardous installations which create significant off site accident risks
- Policies around existing pipelines and hazardous installations which do not create significant off site accidental risks

Policies restricting developments around Liverpool Airport and Public Safety Zone policy

5.2 The basic policy objective governing the restriction on development near civil airports is that there should be no increase in the number of people living, working or congregating in Public Safety Zones and that, over time, the number should be reduced as circumstances allow. In determining planning applications under these policies, the Council will consult with and take account of any advice received from the Airport Operator in relation to proposals which may not comply with PSZ policy and where the local planning

authority is minded to approve a proposal.

5.3 Development within the Liverpool Airport PSZ will only be permitted if it comprises a dwelling extension or it would not reasonably be expected to increase the numbers of people living, working or congregating in or at the property or land.

5.4 National advice from the DETR (DfT public safety zones circular 1/2002) in respect of accidental risks around major airports advises refusal of planning permission for significant new development where the individual risk exceeds 10 chances per million (10 cpm) in one year of death occurring to someone on the ground as calculated on a modelling method related to records of actual accidental risks around airports. This risk level restriction relates to the normal range of development proposals. Within the public safety zone, where the figure exceeds 100 cpm for existing development the airport operator is expected to take steps to remove the development. In addition to house extensions, a change of use involving no increased overall population exposure is an example of the sort of proposal that may be acceptable within the 10 cpm area.

5.5 Development within the Liverpool Airport PSZ involving very low density of occupation of land may be allowed in certain circumstances.

5.6 Examples of low density of occupation land uses include long stay and employee car parking, open storage and warehouse developments employing few people and

having few visitors, and public open space in cases where there is a reasonable expectation of low intensity use. Since the majority of the area covered by public safety zone policy within Halton is in the Green Belt most of these sorts of uses would have a policy presumption of refusal against them on Green Belt policy grounds.



Policies for restricting developments around established hazardous installations which create significant off site accident risks

5.7 Development on land within areas around hazardous identified as having an individual accidental risk level exceeding 10 cpm will not normally be permitted.

5.8 As in the case of Liverpool Airport,

examples of low density of occupation land uses include long stay and employee car parking, open storage, warehouse developments employing few people and having few visitors, and public open space in cases where there is a reasonable expectation of low intensity use, are uses that can still be considered for approval within this policy framework. The same applies to dwelling extensions or where a development would not reasonably be expected to increase the numbers of people living, working, or congregating in or at the property or land.

5.9 If the figure exceeds 100 cpm for existing development no new development would normally be allowed. However, paragraph 24 Appendix B clarifies the different methodology between assumed failure rates at hazardous installations and historical experience of actual accidents, with PSZ policy. The methodology described in paragraph 24 Appendix B is naturally more conservative in its assumptions than the well established PSZ policy structure. It is therefore reasonable to examine individual cases carefully before refusing all development where risk levels exceed 100 cpm or to refuse all but low density development proposals where risk levels exceed 10 cpm.

5.10 Proposals made by a developer that will mitigate the likely effects of a potential major accident so that they are not considered significant will normally be permitted.

5.11 It may be unacceptable to reject a desirable new development proposal if substantial and comprehensive measures can be taken to mitigate the effects of a major accident. The developer will be encouraged to negotiate with those responsible for

existing off-site accidental risks to find a solution acceptable to the Local Planning Authority. By way of example a school might be provided with a building protection system to limit the ingress of external gas releases. Equally, it might be possible to reduce existing off site accidental risk from a COMAH site by technological changes in site processes or storage. It might also be possible to reduce COMAH site inventories.

hazardous installations which do not create significant off site accidental risk levels.

5.15 Development on land within areas around existing hazardous installations or pipelines identified as having an individual accidental risk level below 10 cpm will normally be permitted

5.12 In determining planning applications under this policy, the Council will consult with and take account of any advice received from the Health and Safety Executive.

5.16 These sites are still the subject of notified consultation zones from the HSE who should therefore be consulted, initially through the PADHI system of consultation, and thereafter through the normal procedures set out in Circular 04/2000.

5.13 The Health and Safety Executive's approach aims to balance the principle of stabilising and not increasing the number of people at risk with a pragmatic awareness of the limited land available for development in the UK. The HSE's approach to risk assessment is set out in a number of guidance documents they have produced, which includes the Planning Advice for Development around Hazardous Installations (PADHI) land use methodology which is used by local planning authorities to generate HSE's normal advice for development proposals within HSE notified planning consultation zones.

Policies around existing hazardous pipelines and hazardous installations which do not create significant off site accidental risks

5.14 As a result of research work carried out on planning applications to Halton Council there is clear evidence that none of the existing major accident pipelines covered by this SPD create significant off site accidental risk levels. They fall therefore under the same policy as those existing

6 Sustainability and Monitoring Issues

Sustainability Issues

- 6.1 The UDP was subject to a Sustainability Appraisal (SA) at two key stages in its production. These were the UDP First Deposit and Second (Revised) Deposit stages. This process has helped to ensure that the policies that this SPD is based upon contribute towards achieving sustainable development.
- 6.2 A Sustainability Scoping Appraisal of this SPD was published in June 2007. In accordance with Part 2(9) of the Environmental Assessment of Plans and Programmes Regulations 2004, the Council, as the responsible authority decided, in August 2007, that the intended Supplementary Planning Document is unlikely to have a significant environmental effect and accordingly does not require a Strategic Environmental Assessment. A Sustainability Appraisal Document will be published during the next steps in the public consultation processes.

Monitoring issues

- 6.3 Chapter 4 in the UDP has 2 objectives set out:
- to reduce the potential of various land uses to cause continuing harm.
 - to improve the potential to create a safe, healthy and prosperous economy, environment and society
- 6.4 The UDP contains 2 specific indicators directly relevant to this SPD. There are no specific indicators related to Airports therefore specific monitoring relates only to

COMAH matters:

- Number of sites designated under the control of major accident hazard regulations 1999 (COMAH).
 - Extent of COMAH planning consultation zones.
- 6.5 Since the UDP was adopted in April 2005 there has been a reduction in the number and extent of COMAH sites and their associated HSE planning consultation zones. These will continue to vary during the Plan period and will be monitored as a part of annual monitoring processes. Because of the more detailed policies and plans contained in this SPD, monitoring will extend to 5 monitoring indicators.
- 6.6 The 5 monitoring indicators for this SPD will therefore be:
- Number of sites with Hazardous Substances Consent (but see 6.8 below)
 - Extent of HSE notified planning consultation zones (expressed in hectares)
 - Extent of 10 cpm areas (expressed in hectares)
 - Planning permissions granted and refused within 10 cpm areas
 - Planning permissions granted within HSE consultation zones where HSE advice was to refuse
- 6.7 These 5 indicators are a formalised and quantifiable expression of the extent and impact of major accident hazard land uses within the borough. The less their extent the greater is the likely level of safety experienced by people in Halton.
- 6.8 It is possible that a COMAH site might not require HSC. Where this occurs liaison should take place with HSE. However, for monitoring purposes, only those sites requiring HSC from the Council will be monitored. There are no such sites in the Borough at present.

Appendix A - UDP policy extracts

HALTON UNITARY DEVELOPMENT PLAN
Adopted 7th April 2005



UDP page 10	
PLANNING PROBLEMS AND ISSUES	
Paragraph 2	Of particular significance for land use planning is the legacy of the chemical industry in Halton that has left very large areas of land so badly contaminated that they are neither suitable nor commercially viable for development. Much of this land is either in the form of chemical waste tips or in use for low value industrial uses such as open storage and scrap yards. This legacy presents a major disincentive for development in the Borough and makes it impossible to meet Government policy objectives for most new development to take place on previously used land. This is because the location, unsuitability and costs of such sites in Halton are far worse than is normal of a typical urban area. This peculiar situation in Halton therefore has to be taken into account when evaluating the Plan against national planning policy.

UDP page 12	
MAJOR ACCIDENTAL RISK INSTALLATIONS	
Paragraph 1	Some of the existing chemical industry in the Borough use toxic or dangerous chemicals that are potentially hazardous if accidentally released. These chemical plants are a major source of local employment and prosperity, but storage of these chemicals could have a blighting effect on certain kinds of development in the vicinity and impose slightly increased risk levels for nearby residents. A balance needs to be struck between society's concerns about safety standards, the blighting effect on development and the economic future of Halton's important chemical industry.

UDP page 19	
MAIN STRATEGIC AIM	
	To transform the quality of Halton's environment and improve economic prosperity and social progress through sustainable development.

UDP page 21 and 22

ENVIRONMENTAL QUALITY

1 Aims

- a To create a safe and healthy environment.
- b To help reduce or counteract greenhouse gas emissions.
- c To help alleviate unavoidable effects of climate change.
- d To make contaminated land safe and bring it back into beneficial use.
- e To enhance the built environment.

2 Objectives

- a Transform areas of poor quality environment where poor design, dereliction and inappropriate land uses create an unattractive environment.
- b Ensure that future development is of a quality of design that enhances the built environment.
- c Deal with the historical legacy of the chemical industry with its dereliction and contaminated sites.
- d Ensure that new development and sources of existing pollution do not create unacceptable pollution.
- e Ensure that risk levels from development with the potential to create major accidents are reduced.
- f Encourage development of appropriate renewable energy schemes.
- g Encourage the use of energy efficient designs in all development.
- h Ensure that inappropriate development does not take place in areas at risk from flooding.
- i Protect significant green corridors linked to the Mersey Estuary to assist migration and adaptation of species affected by climate change.
- j Ensure that unsuitable development does not take place on or near to contaminated land, sites with potential to pollute and sites with potential to create major accidents.
- k Establish a network of off-road routes or greenways for walking, cycling and horse riding.
- l Provide safe off-road routes for cyclists linking with the greenway network.

3 Indicators

- a Days when air pollution is moderate or high.
- b Number of sites designated under the control of major accident hazard regulations 1999 (COMAH).
- c Extent of COMAH consultation zones.
- d Development on land liable to flood.
- e Area of contaminated land treated, and (separately) the area of derelict and vacant land brought back into beneficial use.
- f Total annual tonnage of air pollutants emitted by industry, and
- g Total annual tonnage of carbon dioxide and other greenhouse gases emitted by industry.

UDP pages 33 & 34

STRATEGIC POLICIES (PART 1 POLICIES)

S 5 MAJOR ACCIDENT LAND USE RISKS

- 1 Development will not be permitted if it is:-
 - a Near Liverpool Airport or COMAH Sites and cannot satisfactorily co-exist with their operations; or
 - b Likely to significantly increase major accident risks to life or the environment, or to be unduly restrictive to the development of surrounding land.

JUSTIFICATION

- 2 The Borough contains part of the Public Safety Zone (PSZ) for Liverpool Airport. It extends eastwards from the end of the runway into the centre of Hale. National advice from the Office of the Deputy Prime Minister (ODPM) is to refuse planning permission for new significant developments within a PSZ. The definition is based upon international aircraft accident information and policy judgements on the acceptability of risk levels.
- 3 National advice from the ODPM also exists to restrict the height of new developments in areas near to major airports in the interests of the safety of air travellers.
- 4 The Borough contains a number of sites identified under the Control of Major Accident Hazards (Planning) Regulations 1999 (COMAH). Each site has a consultation zone notified to the Council by the Competent Authorities. The Authorities are the Health & Safety Executive (HSE) and the Environment Agency (EA).
- 5 Within each zone there is a requirement to consult the Competent Authority on most significant developments requiring planning permission. Where there is a significant chance of a possible major accident causing accidental death, injury or environmental pollution there has to be a policy judgement as to whether development should be refused or approved. These sites and the associated consultation zones will be identified in Supplementary Planning Documents. These zones are not defined on the proposals map because:
 - a Significant restrictions on development exist only in extremely limited circumstances as set out in policy PR12.
 - b The very limited areas affected may alter over the period of the UDP.
- 6 This policy applies where appropriate to major accident hazard pipelines (as defined in the Pipeline Safety Regulations 1996).

UDP page 124

CHAPTER 4 - POLLUTION AND RISK

AIMS AND OBJECTIVES

- 1 The overall aim of the Unitary Development Plan (UDP) is to transform the quality of the environment and improve economic prosperity as well as creating a safe and healthy environment. All these elements are interrelated throughout the UDP. This chapter is no exception.
- 2 This chapter's objectives are:
 - to reduce the potential of various land uses to cause continuing harm.
 - to improve the potential to create a safe, healthy and prosperous economy, environment and society.

BACKGROUND

- 1 The Borough has an unusual and challenging legacy derived from its long and complicated history as one of the nineteenth century's world centres for the alkali chemical industry. The 1865 Alkali Act owes its origins in part to the evidence put forward as to the gross pollution occurring in the 1850's and 1860's on the banks of the Mersey within what is now Halton Borough.
- 2 The modern resulting mix of businesses includes many still with the potential to pollute and others with the potential to create a major accident risk within the Borough close to housing and town centres in a way which is almost unique in the United Kingdom.
- 3 The range and the degree of residual contamination of land in the Borough is another modern legacy deriving from the alkali chemical industry.
- 4 This combined legacy has had a major effect on the Borough's present social, economic and environmental character and on its present image. This affects the confidence that investors have in bringing modern employment and housing opportunities and other facilities to the Borough. This legacy requires special policies to be applied to encourage the continued transformation of the Borough. The large amount of Halton's contaminated land, the unusually high costs of its remediation, together with the lower land and property prices associated with the overall combined legacy of the chemical industry, makes it extremely difficult to redevelop many of the area's brownfield sites. This in turn means the area's declining population cannot be reversed as easily as in many built up urban areas whose problems of population decline have less complicated origins.
- 5 Also of significance in terms of its potential to create a major accident risk is Liverpool Airport which lies on the western edge of the Borough. It is however, an activity of great importance to a modern local economy and it is necessary to strike the best balance between its benefits and its safety impact on the Halton area.

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MAJOR ACCIDENT RISKS

- 7 Throughout the country there exists the possibility of major accidents which could result in major loss of life or damage to the environment. National policies identify two types of land uses in (or adjacent) to Halton which have particular implications in respect of major accident hazards. The first type is airports and the second type is Control of Major Accident Hazards (COMAH) Sites.
- 8 Halton is relatively unusual in that part of its area lies under the flight path of a major (and expanding) airport of great economic significance in the sub-region. The existence of Liverpool Airport creates a slightly increased risk of the remote chance of a major accident affecting the environment and people of Halton even though it is located within the area of Liverpool City Council. It is essential to reach a proper and satisfactory balance between these safety issues and the economic value of Liverpool Airport.

- 9 Halton is also unusual in relation to the number of sites where significant quantities of potentially hazardous chemicals are used or stored. This is partly due to the concentration and nature of chemical installations in the area and the length of time they have been there. These chemical plants are a major source of local employment and prosperity but the storage and use of these chemicals can have a blighting effect on certain kinds of development in the vicinity. The potential increased risk levels from new development in or surrounding a COMAH site is partly reflected in the requirement to consult the Health and Safety Executive (HSE) and the Environment Agency (EA) when planning applications are submitted within these areas.
- 10 It is essential to reach a proper and satisfactory balance between society's concerns about safety standards and the economic future of Halton's important chemical industry.
- 11 The proposed policies strike a proper balance by:
 - Acknowledging what society currently considers to be an acceptable level of safety in relation to the potential accident effects on the areas surrounding major accident hazards.
 - Imposing a powerful but reasonable pressure on those responsible for the sources of major accident risks, by a policy to improve these levels of safety further, whenever opportunities arise (for those sites within the responsibility of Halton Council as Local Planning Authority).
 - Imposing appropriate constraints on development opportunities near to these potential major accident hazards.

UDP pages 129 to 131

PR9 DEVELOPMENT WITHIN THE LIVERPOOL AIRPORT PUBLIC SAFETY ZONE (PSZ)

- 1 Development within the Liverpool Airport PSZ will only be permitted if it falls into one of the following categories:
 - a It comprises a dwelling extension.
 - b It would not reasonably be expected to increase the numbers of people living, working or congregating in or at the property or land.

JUSTIFICATION

- 2 National advice from the DETR (DfT public safety zones circular 1/2002) in respect of accidental risks around major airports advises refusal of planning permission for significant new development where the individual risk exceeds 10 chances per million (10 cpm) in one year of death occurring to someone on the ground as calculated on a modelling method related to records of actual accidental risks around airports. This risk level restriction relates to the normal range of development proposals.
- 3 Certain types of development involving very low density of occupation of land may be allowed in certain circumstances. Other types of development involving very large congregations of people in the vicinity of Liverpool Airport (e.g. a major sports stadium) may not be allowed even where the individual risk level is less than 10cpm.
- 4 Within the public safety zone, if the figure exceeds 100 cpm the airport operator would be expected to take steps to remove the development. It is not expected that this will arise within Halton within the Plan period.
- 5 The Liverpool Airport Public Safety Zone will be identified in a Supplementary Planning Document.

PRI 0 DEVELOPMENT WITHIN THE LIVERPOOL AIRPORT HEIGHT RESTRICTION ZONE

- 1 Development within the Liverpool Airport height restriction zone will only be permitted if it is below the height notified to the Council by the relevant authority and would not cause a hazard to air travellers.
- 2 Development within the Liverpool Airport height restriction zone will not be permitted if it would otherwise cause a hazard to air travellers.
- 3 Tree planting and other landscape improvements in the vicinity of Liverpool Airport considered under Policy GE28 - The Mersey Forest, must not adversely affect the operational integrity or safety of the airport.

JUSTIFICATION

- 4 The Council is notified by the Civil Aviation Authority that they wish to be consulted about certain types of development around airports to ensure that the safe passage of air traffic will not be interfered with by, for example, high buildings or waste facilities which might attract large populations of birds near airports.
- 5 The varying height zones cover the whole of the Borough and are therefore not shown on the Proposals Map but the Local Planning Authority keeps records of these areas.
- 6 While Policy GE28 seeks to encourage tree planting and landscape improvements as part of the Mersey Belt project, it is important that such planting does not adversely affect the operational safety of the airport.

MAJOR ACCIDENT RISKS

PRI 1 DEVELOPMENT OF SITES DESIGNATED UNDER THE CONTROL OF MAJOR ACCIDENT HAZARDS (PLANNING) REGULATIONS 1999 (COMAH)

- 1 Development that falls within the designated COMAH definition will be permitted provided that all of the following criteria can be satisfied:
 - a The applicant can demonstrate that the proposal will impose no significant development restrictions in terms of off-site accidental risk assessment on surrounding land users.
 - b There is no reasonable alternative method of achieving the development's objective.

JUSTIFICATION

- 2 Proposals for new COMAH proposals or for the expansion or amendment of existing sites should result in no significant development restrictions that would reduce the effective choice of proper land uses in the surrounding consultation zone notified to the Council by the Competent Authority.
- 3 Because the processing and storage of hazardous substances means there is an increased possibility of a major accident it is always necessary to ascertain if there is a reasonable alternative.
- 4 Current COMAH sites and major accident hazard pipelines and their consultation zones will be shown in a Supplementary Planning Document as they may change over the plan period.

- 5 Significant development restrictions are defined as an overall accidental risk level of 10 chances per million per year as a result of a proposed COMAH development and any other established COMAH sites nearby.
- 6 In determining planning applications under this policy, the Council will consult with and take account of any advice received from the Health and Safety Executive.

PRI 2 DEVELOPMENT ON LAND SURROUNDING COMAH SITES

- 1 Development on land within consultation zones around notified COMAH sites will be permitted provided that all of the following criteria can be satisfied:
 - a The likely accidental risk level from the COMAH site is not considered to be significant.
 - b Proposals are made by the developer that will mitigate the likely effects of a potential major accident so that they are not considered significant.

JUSTIFICATION

- 2 The definition of what constitutes a significant major accidental risk is related to the same policy development framework for risk levels set out in the justification to Policy PR9 above, where an individual accidental risk level of 10 chances per million (cpm) in a year is the maximum considered acceptable, with the same provisos set out in the justification to Policy PR9.
- 3 It may be unacceptable to reject a desirable new development proposal if substantial and comprehensive measures can be taken to mitigate the effects of a major accident. The developer will be encouraged to negotiate with those responsible for existing off-site accidental risks to find a solution acceptable to the Local Planning Authority.
- 4 COMAH consultation zones in Halton will be shown in a Supplementary Planning Document as they may change over the plan period.
- 5 In determining planning applications under this policy, the Council will consult with and take account of any advice received from the Health and Safety Executive. The Health and Safety Executives approach aims to balance the principle of stabilising and not increasing the number of people at risk with a pragmatic awareness of the limited land available for development in the UK. The HSE's approach to risk assessment is set out in a number of guidance documents they have produced, which includes the PADHI land use methodology. This particular guidance is designed to help planners and developers who want to work out for themselves what the likely response of the HSE will be if the HSE were to be consulted about a planning proposal.

Appendix B

Understanding Accidental Risk Issues

Introduction

1 The Planning & Risk SPD is intended to be supplementary and complementary to the adopted planning policies contained in the UDP which establish that 10 chances in a million (cpm) individual risk of death is the primary criterion for establishing whether the effect of a development proposal is significant in affecting individual accidental risk from the special land uses which are the subject of this SPD. By seeking to clarify, in more detail than in the UDP, how potential individual accidental risks are balanced against the benefits that development proposals bring, this SPD provides a clearer policy framework for individual development control decisions. This appendix provides:

- greater depth and explanation of adopted UDP policies
- a review of external policies to ensure adopted UDP policies are still reasonable and not out of date
- confidence that UDP policies can continue to be used in the future

2 The SPD is site specific, showing designated sites and their surrounding consultation zones. These affect a significant (though reducing) area of the Borough. In terms of sustainability or environmental impact issues the probability, duration, frequency and reversibility of the potential effects of a major accident do not raise a serious problem, partly because the chances of a hazardous installation site accident or an

aircraft crashing are both extremely low within the Plan period. When the UDP was being prepared DfT Circular 1/2002 was issued. Research carried out in relation to safety around airports (R&D report 9636 - June 1997) considered special limitations on large assemblies of people, even outside of the PSZ's 10 cpm area, should be considered. The UDP was prepared on that basis but, in practice, central government planning policy, as set out in Circular 1/2002 contained no reference at all to this prospective restriction. Although the UDP was approved subsequent to that circular this matter was not taken into account. To ensure that the Planning & Risk SPD is up to date in terms of national planning policies the SPD has been made consistent with this planning policy advice.

3 The primary policy issue relates to considering the risk of an individual or a group of individuals being killed as a result of a major accident involving either a major escape of chemicals from a hazardous installation or major accident hazard pipeline or from an aircraft crashing as it lands or takes off from Liverpool Airport. An additional effect is the potential impact of such accidents on the environment itself.

Comparative safety issues between Hazardous Installations and Airports and Flood Risks

4 The Council's approved UDP policies, upon which this SPD expands, use the same standard of individual accidental risk occurrence for policy constraints in relation to both hazardous installations and airports within Halton. This is because:

- Halton has extensive experience in relation to the acceptability of these types of risk as a factor in planning decision making;

- because of a view held both by Halton Council and by national government that there should be consistency and openness in the setting of standards for this form of policy making.
- 5 That standard is therefore based upon extensive national government sponsored research work carried out into actual accidental risks around airports and the probability of aircraft crashing upon property, particularly in and around airports. Halton Council's view is that it is impractical and unnecessarily complex to distinguish between different types of land use with the capacity to cause a major accident which has off site consequences in terms of potential multiple fatalities. Aircraft accident information has a wide ranging and clear evidence base. It was therefore, reasonable to follow that national policy line, unless there were compelling reasons to take a different policy view.
 - 6 HM Treasury published a report on the setting of safety standards in November 1996. The objective of the 1996 report was to strike the best balance of costs and benefits in such situations. The nature and level of risk, means that more weight should be put on the considered preferences of those at risk. The report's view was that there could and should be more consistency of approach to different areas of safety regulation within government. HSE advice to Local Planning Authorities differs from risk policy in relation to land use planning and Airport Public Safety Zones. Because Halton saw no compelling reason to apply different risk and safety standards between these types of land use it has maintained a consistency of approach.
 - 7 PPS25 (Flood Risk) published in December 2006 indicates that a risk-based approach

should be adopted at all levels of planning in relation to this area of public planning policy making. DEFRA and the EA commissioned and published research related to Flood Risks including Flood Risks to People (e.g. R&D Technical Report FD2317 published in July 2003) underpinning PPS25 policies. Research included the risk of accidental death caused by flooding and reached similar conclusions as did the work underpinning government guidance on airport PSZ's.

- 8 Halton Council's Planning & Risk policies are a consequence of extensive local experience. They are based upon



substantial knowledge and research, in particular the advice received from its expert consultants. UDP policies are consistent with other national government policies in relation to this major accident risks.

Individual accidental risks

9 An individual accidental risk of one death in one million people each year is generally accepted without concern (according to the Royal Commission on Environmental Pollution and a number of other sources) and higher levels appear to be tolerated in certain circumstances. In 2007 HSE stated (consultation document CD212) in a consultation document about societal risk (paragraph 3.2), that there are well established tolerability criteria for individual risk, both for workers and for members of the public, which are:

- The annual risk of accidental death for workers from work activities should be less than 1,000 in 1,000,000
- The annual risk of death for members of the public who are exposed to an involuntary risk from work activities should be less than 100 in 1,000,000.

10 Accidents which result in multiple fatalities and accidents that result from other people's actions, and not from natural disasters, tend to be less well tolerated by people. Where people see some clear personal benefit, despite the possibility of accidents, and where people are well informed about the nature of accidental risks, they tend to be better tolerated by people and by public decision makers (see July 1993 Scientific American article).

11 In relation to the need to compare like with like in terms of risk comparability, many accidental risks are ones to which people are only exposed for a small

proportion of time. Air travel is a good example. Statistics are usually quoted in relation to either passenger distance travelled or as a risk of exposure over a whole year. The reality is that the average person is only exposed to such risks for a short time in any one year. This is borne out by accident statistics rates for air flight personnel who spend far more time on aircraft than individual passengers.

12 In relation to comparing the risk for someone exposed to a nearby hazardous installation to (for example) someone exposed to a possible motor vehicle accident, it is essential to allow for likely time exposure, since it is clear from available information that people generally tolerate much higher levels of risk in activities to which they are only exposed for more limited periods of time.

13 Taking these various factors into account in respect of understanding individual risk have been important elements in the Council reaching a considered view as to an acceptable level of individual major accident risk exposure for spatial planning policy making within Halton.

Societal risk

14 In 2007 HSE (Consultation document CD212 - Proposals for revised policies to address societal risk around onshore non-nuclear major hazard installations) defined the chance of accidents that could harm a number of people in one go as 'societal risk'. They defined 'Societal risk' as "a way to estimate the chances of numbers of people being harmed from an incident. The likelihood of the primary event (an accident at a major hazard plant) is still a factor, but the consequences are assessed in terms of level of harm and numbers affected, to provide an idea of the scale of an accident

in terms of numbers killed or harmed. ...It is in effect a measure of several combined issues - what things could go wrong at such sites, how likely they are to happen and how many people could be affected as a result? Societal risk is therefore dependent on what processes and substances are at the sites, and on the size, location and density of the population in the surrounding areas."

- 15 In the associated Initial regulatory impact assessment document to the HSE's 2007 consultation document (paragraph 46) is the following statement "Within the limited confines of the analysis described in Annex I, we show that the effect of incorporating societal risk is to shift the balancing point in favour of safety. Using only individual risk the boundary where development should not be allowed is where risk exceeds 88 cpm. Depending on the functional form for societal risk and value of H (number of households) chosen, this falls to between 28 and 4.4 cpm when societal risk is included." It would appear that this analysis is based upon risk of death and not upon the current policy base used by the HSE of "risk of dangerous dose" (see paragraph 30 below for this definition).
- 16 The assumed functional form for societal risk analysis in this annex is related to a number of highly variable assumptions including judgements as to how much people are put off by the thought of multiple fatalities rather than a series of single fatalities and also the value society places in economic terms upon the loss of life. The HSE analysis produces a revised figure of 28 – 4.4 cpm individual risk of accidental death above which new development is justified in being stopped or seriously controlled. This figure lies broadly within the same area of risk as the 10 cpm individual risk figure in Halton's UDP which
- 17 Societal risk was defined in DEFRA/ Environment Agency sponsored research published in March 2006 relating to Flood Risks to People as "Average annual societal risk is the estimated annual number of people being harmed or killed due to flooding". This differs from the HSE definition but both share the same concern expressed in paragraph 10 above about the acceptability to society's decision makers of accidents involving multiple fatalities.
- 18 Both DEFRA flood risk policy and Airport Public Safety Zone acknowledge the existence of "societal risk" as a concept that should be considered but do not allow it to complicate the resulting policies. There is nothing fundamentally different in terms of potential off site risks from an airport or from a hazardous installation. Airport off site risk policies do not have a separate, complicated and difficult to understand "societal risk" issue for determining planning applications around them even though the issue is acknowledged and therefore taken into account. There is a simpler and easily understood protection regime which, in the Halton area is similarly applied (to ensure consistency). to hazardous installations and pipelines as well.
- 19 Whilst current HSE advice (and Halton's current planning policies on accidental risk) already take the issue of societal risk (as defined in paragraph 14 above) into

account within those areas already covered by established HSE planning consultation zones, there remains a potential societal risk issue for areas outside the current HSE planning consultation zones (see HSE's CD212 consultation document). Since the individual accidental risk of death levels involved, outside the current HSE planning consultation zones, are so low as to be wholly insignificant, it is reasonable to discount this matter in terms of public policy making for spatial planning policies. In addition, the consultation processes involved in the government producing DfT Circular 1/2002 involve consideration of such matters and its final policy advice (see paragraph 2 above) contained no proposed development restrictions outside of the 10cpm PSZ boundary.

- 20 In terms of spatial planning policy further large scale developments within the inner areas of established hazardous installation planning consultation zones in Halton are unlikely to have a sufficiently dramatic effect on the overall numbers of people exposed to significant accidental risks to justify additional explicit policies dealing with societal risk. This takes into account that the risk levels set by Halton's UDP policies fall within the same area of risk as that described in the HSE 2007 consultation document's initial regulatory impact assessment (CD212 see paragraph 16 above).
- 21 Taking these various factors into account in respect of understanding societal risk issues has been important in the Council reaching a considered view that an acceptable level of individual major accident risk exposure for spatial planning policy making is an appropriate approach within Halton.

Planning blight, urban regeneration

and the re use of previously developed land

- 22 National planning policies over a wide range of documents are clear about the need to encourage urban regeneration and the need to encourage the best use of previously developed land. Halton has a special legacy resulting from its long association with the chemical industry (see Appendix A page 15 paragraph 2 and page 18 paragraphs 1-5) and this has had a major effect on the Borough's present social, economic and environmental character and on its present image. This affects the confidence that investors have in bringing modern employment and housing opportunities and other facilities to the Borough. This local legacy requires special urban regeneration planning policies to be applied to encourage the continued transformation of the Borough. These policies are set out throughout the UDP but in particular can be seen in Chapter 1 on Regeneration. The effects of any restrictions which further discourage the best use of previously developed land in the Borough have therefore to be weighed carefully by the Council in formulating its policies.
- 23 Advice given by the HSE to refuse developments around hazardous installations at risks levels greatly below that already existing nearer to established sites in the Borough has meant that councillors have had great difficulty understanding the application of what they consider to be different standards in risk assessment. If new development is worth stopping then existing development is also worth removing if already exposed to much greater risks. Such a (national) policy already applies around airports. The issue of consistency in public decision making is also relevant to applying the same accident

risk standards to determining applications for development around established major accident risk sites and applications for new or expanded major accident risk sites themselves. Such sites are more unusual than ordinary housing and commercial developments, and more difficult to replace or move if surrounding land uses imposed safety constraints on their activities. There is arguably a greater economic cost compared to the benefit of allowing such sites at higher risk levels. This factor was taken into account in relation to airports which resulted in the policy decision to apply a consistent approach to accidental risk issues notwithstanding the economic arguments that could be put forward in favour of applying different safety standards. Halton Council has also taken account of these matters in applying consistent standards whilst applying a policy pressure to improve safety standards in the interests of sustainability.

The difference between calculated risk and historic evidence

24 The lack of precision of chemical site risk calculations and their foundation on assumed failure rates rather than historic experience, in contrast to the aircraft crash policy situation, makes it difficult to justify expensive and community damaging measures such as demolishing houses which might be unnecessary, based on failure rate assumptions used in those calculations rather than evidence of past actual individual risks. The blighting impact of such policies is self evident and, because the calculation methodology always errs on the side of caution, it is logical to err on the side of caution in applying such policies. Spatial planning safety policies have demonstrable economic and social effects which a local planning authority must take into account in its overall interpretation of

Development Plan policies relevant to each specific planning application.

25 In Halton elected representatives have for many years been well briefed on the comparative risk context surrounding COMAH related decision making so they have been more easily able to make balanced judgements about the acceptability of such remote accidental risks. The levels of acceptability of individual risk now built into Halton's UDP reflect the experience and concerns of the Council over many years.

26 Although the sites identified in this SPD are obviously of significance in terms of their potential to create major accident risks, their activities are also of great importance to a modern local and national economy. It is therefore necessary to strike the best balance between the economic and social benefits of a more vibrant economy in minimising planning blight and the safety impact on the Halton area of these sites.

27 The probable effect of the SPD will therefore be to indirectly improve investment confidence in the built environment within the Borough and thereby reduce unnecessary urban blight by striking the right balance between development requirements and an acceptable level of accidental risk.

HSE "dangerous dose" policy advice position

28 Paragraph 3.8 of the HSE's 2007 consultation document (CD212) states "The Government's view therefore is that informed public opinion, and not solely professional judgement, should guide decisions..." This is exactly the approach taken at Halton over many years which,

through constant public exposure and debate, has resulted in a simple and robust policy framework which strikes the right balance between development requirements and an acceptable level of accidental risk.

- 29 As a result of the special experience and expertise of Halton Council risk based land use planning policies have become statutory planning policies within Halton even though these approved policies differ from national advice given by the HSE to local planning authorities. Advice from the HSE nationally is sometimes hazard based (i.e. the consequences of an accident event happening) rather than risk based (i.e. the likelihood of an event actually happening).
- 30 HSE advice is also based upon the “risk of dangerous dose” to people. This involves severe distress to all, a substantial number requiring medical attention and some requiring hospital treatment as well as the risk of fatalities (about 1%). Whilst Halton’s policies do not explicitly take into account the HSE’s “dangerous dose” concept it is considered that the individual

accidental risk of death policy level adopted in the UDP takes sufficient account of both the “dangerous dose” concept and the “societal risk” concept not to warrant the introduction of additional policy complications which achieve little difference in terms of actual public safety. Halton’s policies in relation to hazardous installations, pipelines and airports are therefore based, more simply, on the risk of an accidental death, which is also the basis used for national public accidental risk policies around Britain’s airports.

Conclusion

- 31 Taking these various factors into account, in respect of understanding individual risk, societal risk, planning blight issues and the HSE’s own policy advice position, have been important in the Council reaching a considered view that an acceptable level of individual major accident risk exposure of 10cpm, for spatial planning policy making, is an appropriate approach within Halton.



Appendix C

List of sites with Hazardous Substances Consent, pipelines and Liverpool Airport and accompanying location maps

I Security

- 1.1 Detailed site location information is not contained in this SPD for security reasons. If additional information is required the Council's Operational Director, Environment and Regulatory Services should be contacted in the first instance (see Appendix F)

2 Active hazardous installations within Halton

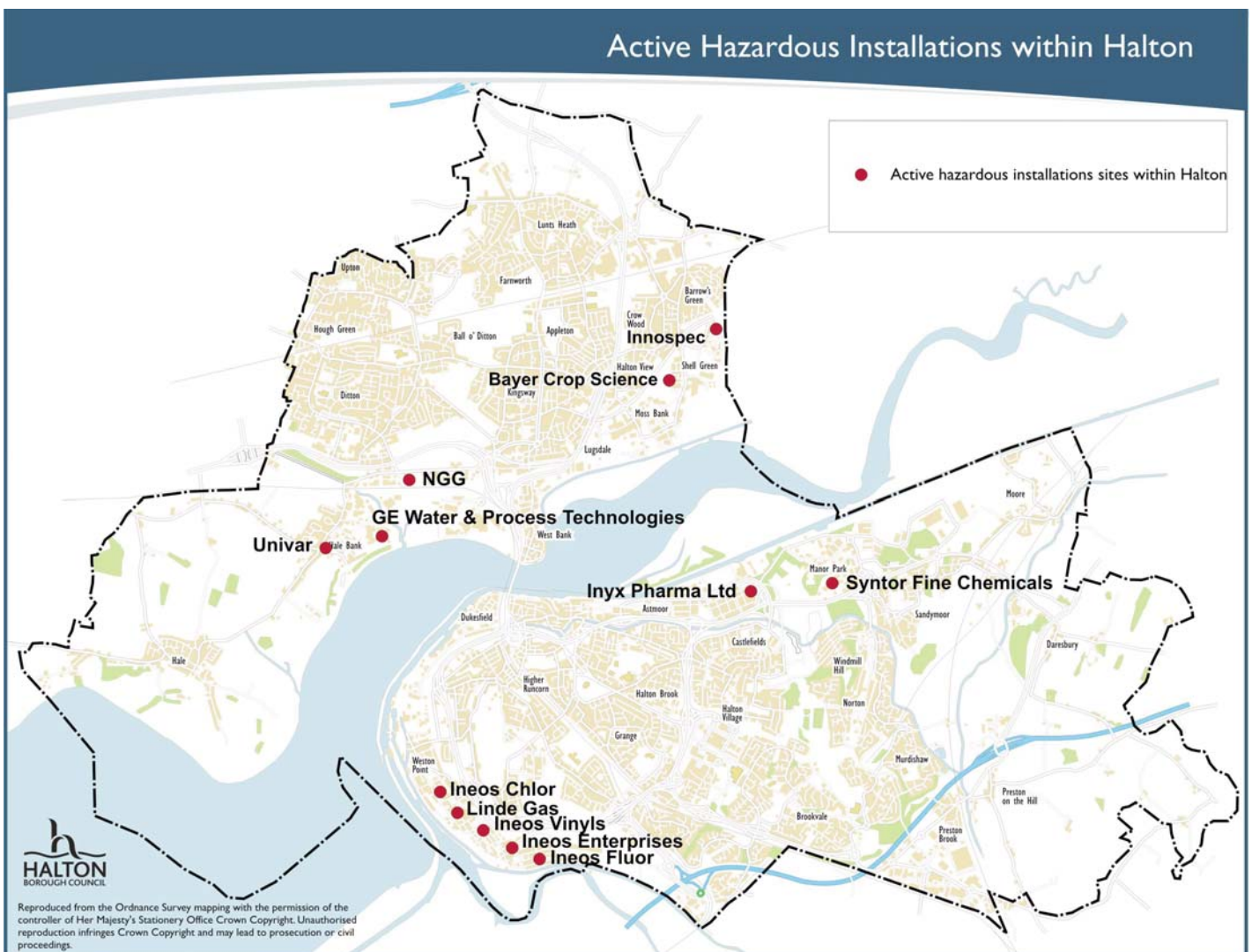
- 2.1 **Innospec**, Dans Road, Widnes. This is a lower tier COMAH site. An amended HSC, which may affect the HSE's planning consultation zones, is under consideration in 2008. Previously known as Aroma and Fine Chemicals Ltd and as Bush Boake Allen
- 2.2 **Bayer Crop Science**, Gorse Lane, Widnes. This is a top tier COMAH site. Its 10 cpm estimated area has an extremely small effect outside the site boundary. The company has announced its intention to close the site in 2009.
- 2.3 **National Grid Gas (NGG)**, Ditton Road, Widnes. Formerly British Gas North Western. Gas holder is a lower tier COMAH site.
- 2.4 **Univar, Halebank**, Widnes. Formerly known as Ellis & Everard. This is a lower tier COMAH site. Its 10 cpm estimated area currently has an effect outside the site boundary. An amended HSC, which may reduce this effect and the HSE's planning consultation zone is likely to be under consideration in 2009.
- 2.5 **GE Water & Process Technologies**, Foundry Lane, Halebank, Widnes. Formerly known as GE Betz and before that as Dearborn's. This is a lower tier COMAH site. An amended HSC, which should reduce the HSE's planning consultation zone, is under consideration in 2008. Its 10 cpm estimated area has an effect outside the boundary of the site but only affects other chemical industry premises.
- 2.6 **Pharmaserve North West**, Arkwright Road, Astmoor, Runcorn. Formerly known as Inyx Pharma and Miza Pharmaceuticals. It is not a lower tier COMAH site.
- 2.7 **Ineos Chlor**, Weston Point, Runcorn. Formerly ICI. This is a top tier COMAH site. Its 10 cpm estimated area has a substantial effect outside the site boundary, covering most of Weston Point and Weston Village in Runcorn and also affecting part of Vale Royal District Council's area.
- 2.8 **Linde Gas Ltd**, Weston Point, Runcorn. Within the Ineos site is a separate specialised gas handling operator, Linde Gas Ltd. Off site effects are contained within the Ineos site. This is not a lower tier COMAH site.
- 2.9 **Ineos Vinyls**, Weston Point, Runcorn. Formerly European Vinyls Corporation Ltd and before that ICI. This is a top tier COMAH site. Its 10 cpm estimated area has a substantial effect outside the site boundary, covering parts of Weston Point and Weston Village in Runcorn and also affecting part of Vale Royal District Council's area.
- 2.10 **Ineos Fluor Ltd**, Weston Point, Runcorn.

Formerly ICI. This is a top tier COMAH site. Its 10cpm estimated area has a substantial effect outside the site boundary, covering most of Weston Point and Weston Village in Runcorn and also affecting part of Vale Royal District Council's area.

2.11 **Ineos Enterprises Ltd**, Weston Point, Runcorn. Formerly ICI. This is a top tier COMAH site. Its 10cpm estimated area has a substantial effect outside the site boundary, covering most of Weston Point and Weston Village in Runcorn and also affecting part of Vale Royal District Council's area.

2.12 **Syntor Fine Chemicals**, Unit 11, Boleyn Court, Manor Park, Runcorn WA7 1SR. Granted HSC (06/00231/HSC) in August 2006. This is a lower tier COMAH site. Its 10 cpm estimated area has a small effect outside the boundary of the site

2.13 A map showing the location of each of these sites is shown below

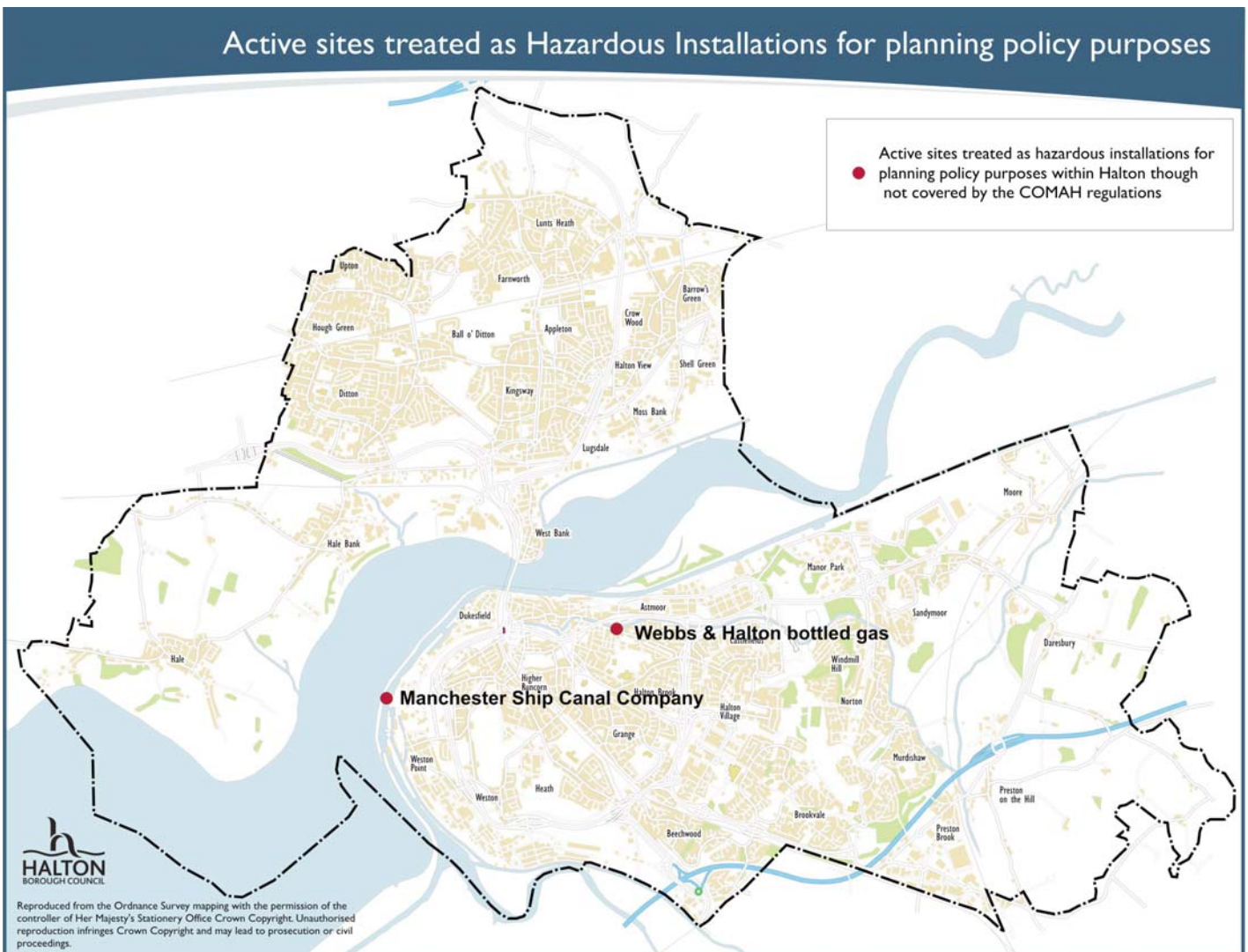


3 Active sites treated as hazardous installations for planning policy purposes within Halton though not covered by the COMAH regulations

- 3.1 Webbs & Halton bottled gas, Halton Road, Runcorn. Although this is not formally a COMAH site it still currently falls under the 1982 NIHHS regulations (as amended) and, for planning purposes, is therefore being treated as a hazardous installation.
- 3.2 Manchester Ship Canal Company, Runcorn Lay-by, Runcorn Docks. This is not a

COMAH establishment and therefore has no COMAH planning consultation zone. It is, however, in an HSE Consultation zone list (CZL) because of an explosives licence. Since it does not fall under the COMAH regulations its site has only been identified by general reference to the Ship Canal in the Runcorn Docks area .

- 3.3 A map showing the location of these sites is shown below



4 Active COMAH sites outside Halton but potentially affecting it

4.1 Pentagon Fine Chemicals, Halebank, in Knowsley Council's area. Used to be known as Great Lakes and before that as Ward Blenkinsop. This is a top tier COMAH site. Its 10cpm estimated area should have little affect in Halton although Old Higher Road and a small part of Halebank Road (which are all in the Green Belt) might be affected. It is a matter primarily for Knowsley Council to deal with in accordance with its own planning policies. However, automatic consultation with HSE using the PADHI system (see Appendix E, paragraph 3) would ensure an

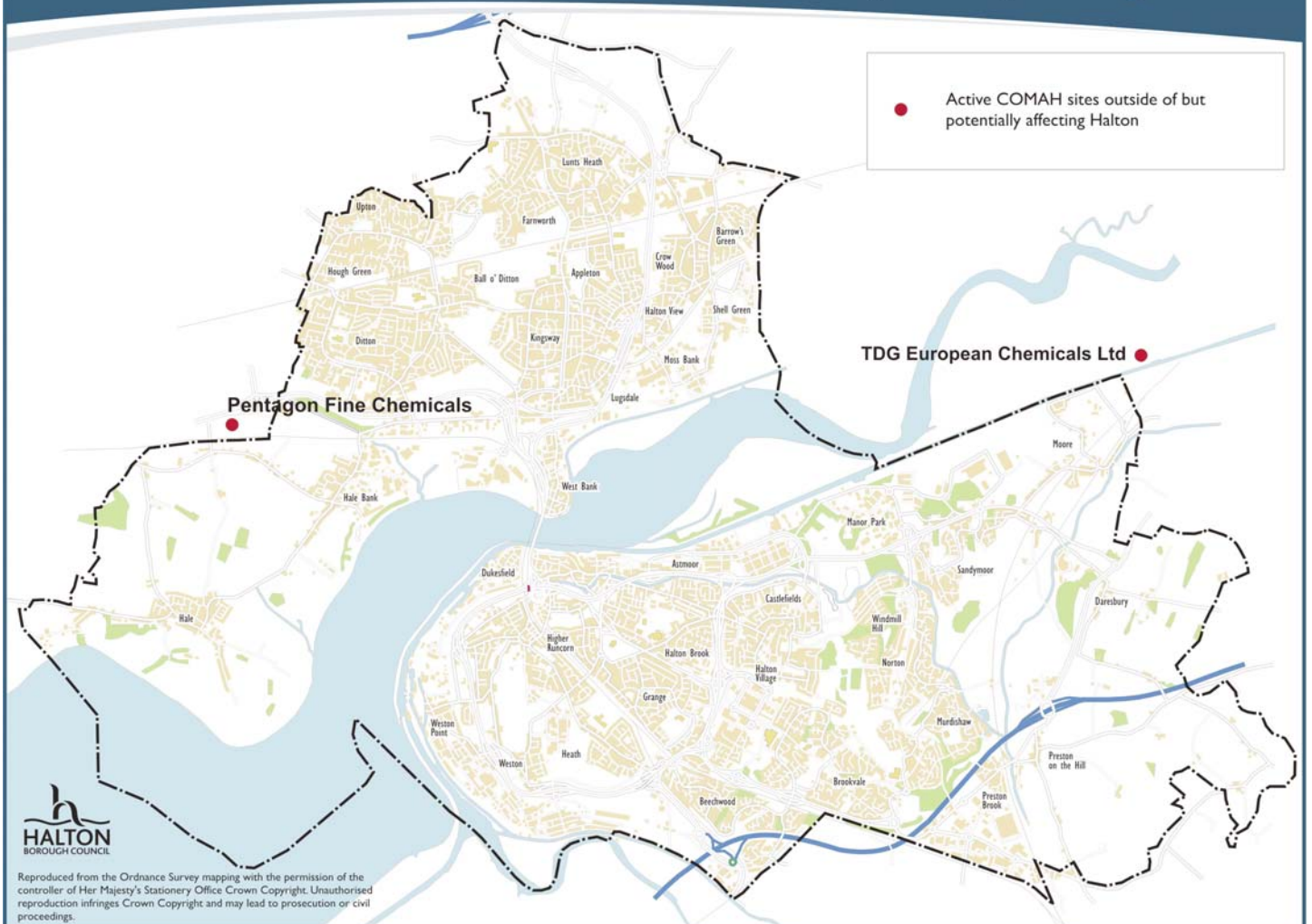
assessment takes place if any new development proposals come forward.

4.2 TDG European Chemicals Ltd, Acton Grange Distribution Centre, Birchwood Lane, Moore in Warrington Council's area. This is a top tier COMAH site.

5 Active Airport sites outside of but affecting Halton

5.1 Liverpool Airport, Speke, Liverpool City Council's area. Its 10cpm estimated area affects Hale Village in Halton in the form of the notified Public Safety Zone.

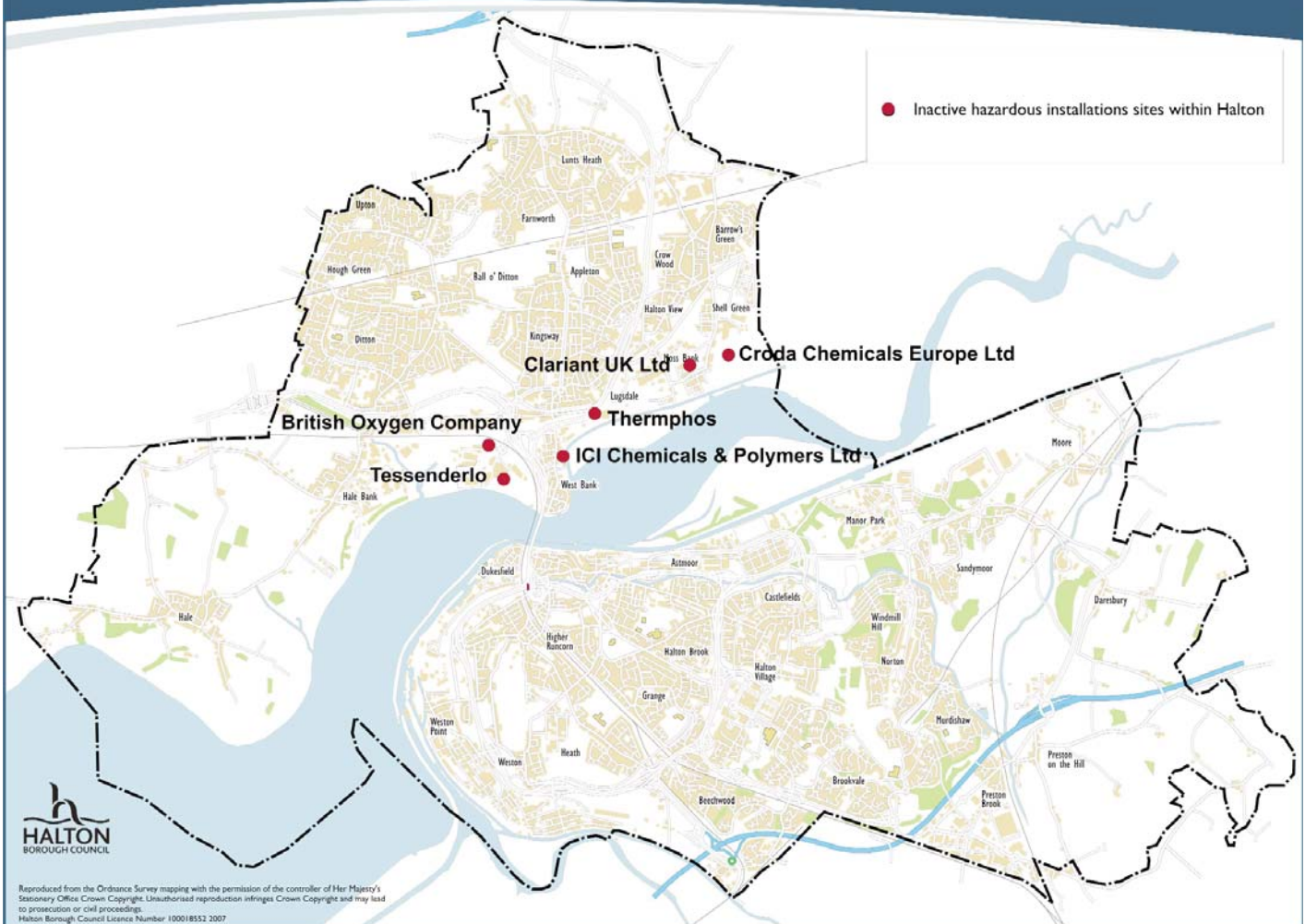
Active COMAH sites outside of but potentially affecting Halton



6 Inactive hazardous installations within Halton (sites still with Hazardous Substance Consent)

- 6.1 Croda Chemicals Europe Ltd (better known locally as Croda Bowman), Gorsey Lane, Widnes. Site has been closed and up for sale for some years. This was a lower tier COMAH site.
- 6.2 Clariant UK Ltd, Tanhouse Lane, Widnes; formerly known as RV Chemicals. Site has been closed for some time and redeveloped for ordinary commercial uses – unopposed revocation is being considered. This was a lower tier COMAH site.
- 6.3 British Oxygen Company, West Bank Dock Estate, Widnes. Site has been closed for some time and redeveloped by O'Connor's as part of the Merseyside Multimodal transportation facility identified in the UDP as the Ditton Strategic Rail Freight Park. This was a lower tier (equivalent) COMAH site
- 6.4 ICI Chemicals & Polymers Ltd, Widnes Experimental Works, Waterloo Road, Widnes. Site has been closed for some years and redeveloped for ordinary commercial uses. This was a lower tier (equivalent) COMAH site.

Inactive Hazardous Installations within Halton



6.5 Tessenderlo, West Bank Dock Estate, Widnes. Formerly known as Elf Atochem, Marchem, Norsochem and Albright & Wilson's. This was designated as a top tier COMAH site. Its 10 cpm estimated area had a very small effect outside the site boundary. The site has now closed and has been demolished – unopposed revocation is being considered.

6.6 Thermphos, Earle Street, Widnes. Formerly Rhodia, and Albright & Wilsons and now owned by Thermphos, this site was a lower tier COMAH site until Rhodia notified HSE that storage quantities had been reduced to sub-notifiable levels in 2001. It still has a deemed HSC.

6.7 The sites are still identified in the HSE's list as sites with COMAH consents. Even though a number of these sites have been redeveloped for other purposes Hazardous Substances Consents have an unlimited life in accordance with the legislation. Some of these sites may therefore ultimately need to have their HSC status revoked by Halton Council (see policy 4.16). Those which are the most important in relation to planning blight and urban regeneration issues will be completed first, using the unopposed procedures set out in the legislation wherever possible because this involves the Council in no compensation issues.

7 Notified Pipelines

7.1 In relation to notified pipelines within the Borough the HSE planning consultation zones are shown in Appendix E and are dealt with and listed below.

7.2 Natural Gas, ethylene, vinyl chloride and various oil products are transported along these pipelines. There are other pipelines (e.g. a hydrogen pipeline) which do not fall

under this notification and consultation system, essentially because they are not considered a sufficient risk to justify special consultation arrangements.

- 7.3 Unlike Airports or hazardous installations, pipelines have 2 special characteristics:
- they represent a potential accidental risk along a line rather than at one particular site; and,
 - much of the length of each pipeline lies under land owned by third parties from whom the pipeline operator has purchased a way leave. That way leave (or sometimes their direct ownership of the land) gives the pipeline operator rights and duties to operate the pipeline safely and also prohibits development over the pipeline unless it is first removed, diverted or suitably protected.

7.4 Work carried out as part of a planning application submitted to Halton Council by expert risk assessment consultants (see Appendix F) has demonstrated that one of the larger ethylene pipelines in the Borough generates individual accidental risk levels well below the 10 cpm level that would mean policy PR12 should be applied. It is therefore likely that this situation applies to all notified pipelines within the Borough. Development on top of a pipeline itself would in any case be protected by either ownership or way leave controls and by the statutory consultation and notification system already in place.

7.5 The SPD does not therefore identify any 10 cpm areas anywhere. The purpose of identification of pipelines, for spatial planning policy purposes, is therefore only concerned with consultation and notification with the HSE.

7.6 The summary list of pipelines is as follows:

- NGG's High Pressure gas network which is divided into a number of different pipelines which are of different

diameters and run at different pressures and therefore generate widely differing consultation zones with the HSE

- SABIC UK Petrochemicals Transpennine Ethylene pipeline (formerly Huntsman and I.C.I.)
- Shell's Grangemouth to Stanlow ethylene pipeline
- Shell's oil pipelines from Carrington to Stanlow
- Ineos' VC pipeline in Runcorn

7.7 Detailed information on the locations of pipelines is held by Halton Council in its internal planning records systems. It is not normally available for detailed public inspection for security reasons. For their general location reference should be made to the consultation map in Appendix E to this SPD.

Appendix D

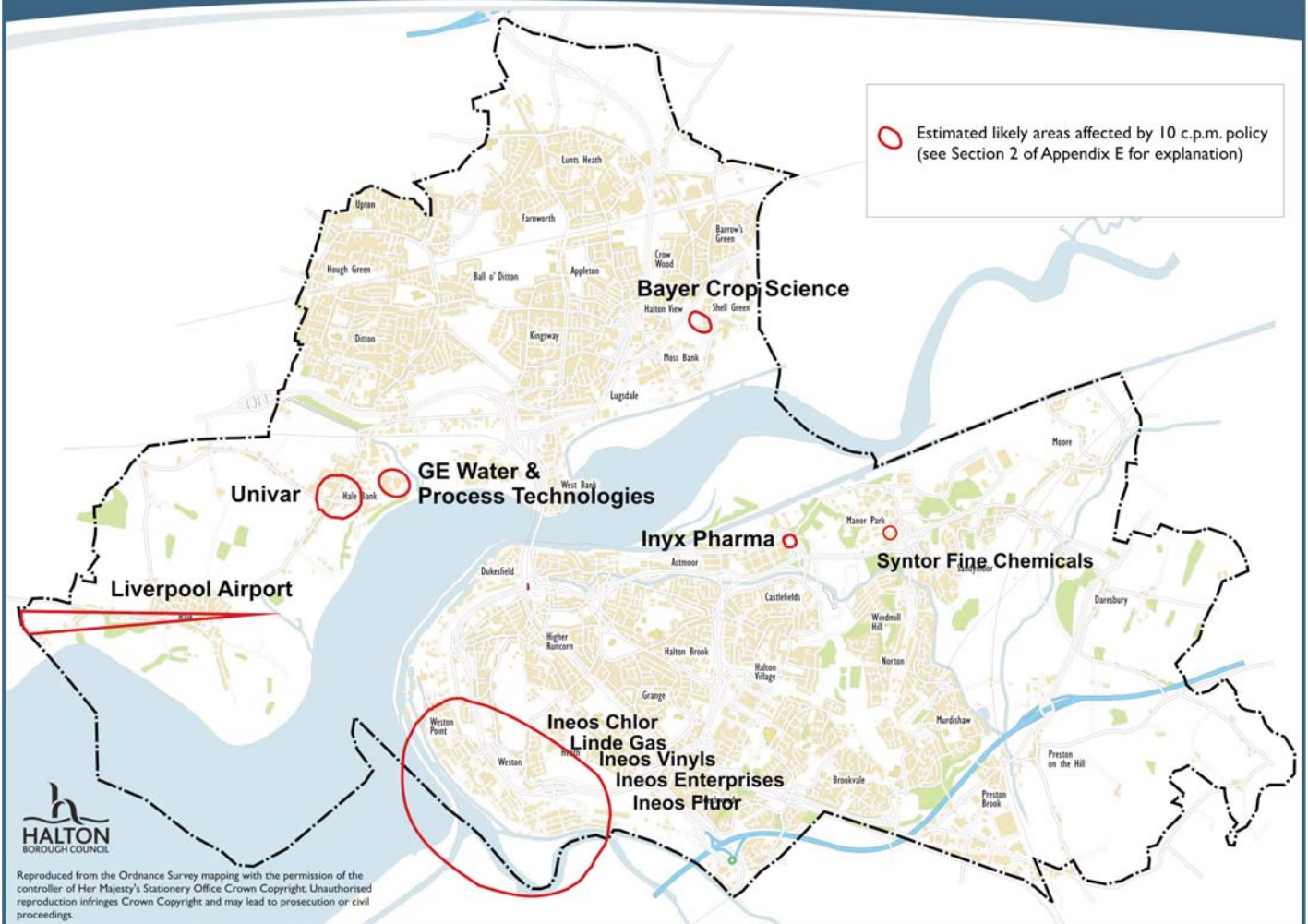
Maps of individual risk zones around Hazardous Installations, pipelines and Liverpool Airport

1 The main purpose of these maps is to identify those areas likely to be affected by UDP Policies PR9 (Development within the Liverpool Airport Public Safety Zone – PSZ) and PR12 (Development on land surrounding COMAH sites). In the case of the Airport the 10 cpm defined area was notified to Halton Council by central government and is identified on the UDP proposals map.

2 In the case of other 10 cpm areas (which are around certain hazardous installations) their current extent is based upon interpretation of a number of data sources including:

- HSE notified consultation maps which identify “inner zones” in certain cases. These consultation zones are related to the risk of a “dangerous dose” as defined by the HSE (see Appendix B’s reference to the 2007 HSE consultation document on Societal Risk). However, these zones can be a helpful indication of the nature and extent of the accidental risk of death involved;
- Various relevant work commissions by DNV who are the Council’s risk

Estimated likely areas affected by 10c.p.m. polices within Halton



assessment experts;

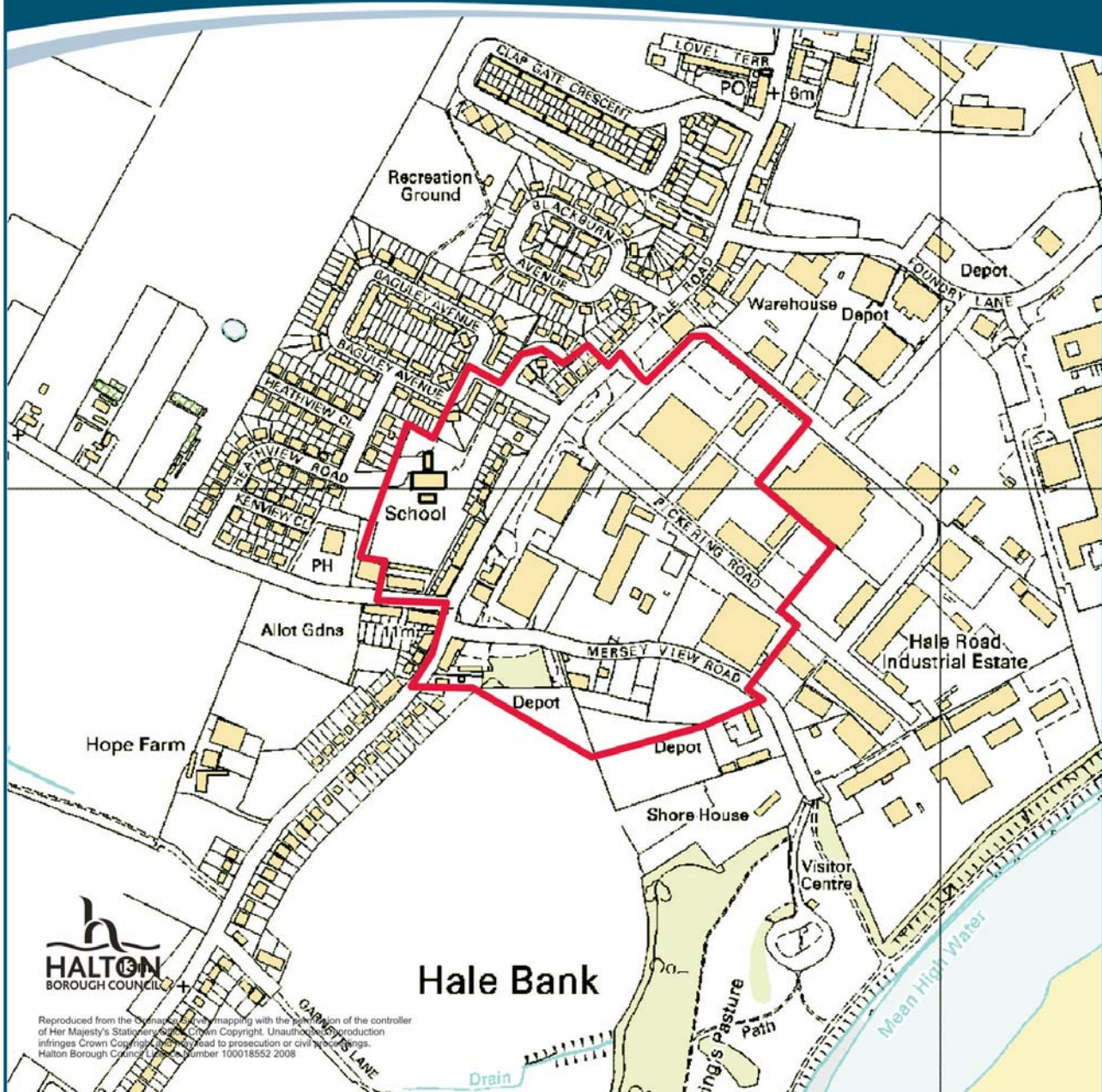
- Consultations by Halton Council on various planning applications over a number of years which have produced a data base of individual cases to support these initial estimates, from both the HSE and DNV.

capable of definition on individual maps. Until more detailed information is available the consultation processes triggered by the HSE planning consultation zones shown in Appendix E will provide the method by which any more detailed assessment is required in relation to planning decisions affected by this SPD's policies

3 The map shows all 10 cpm areas. Only 2, those for Univar and for Ineos have been

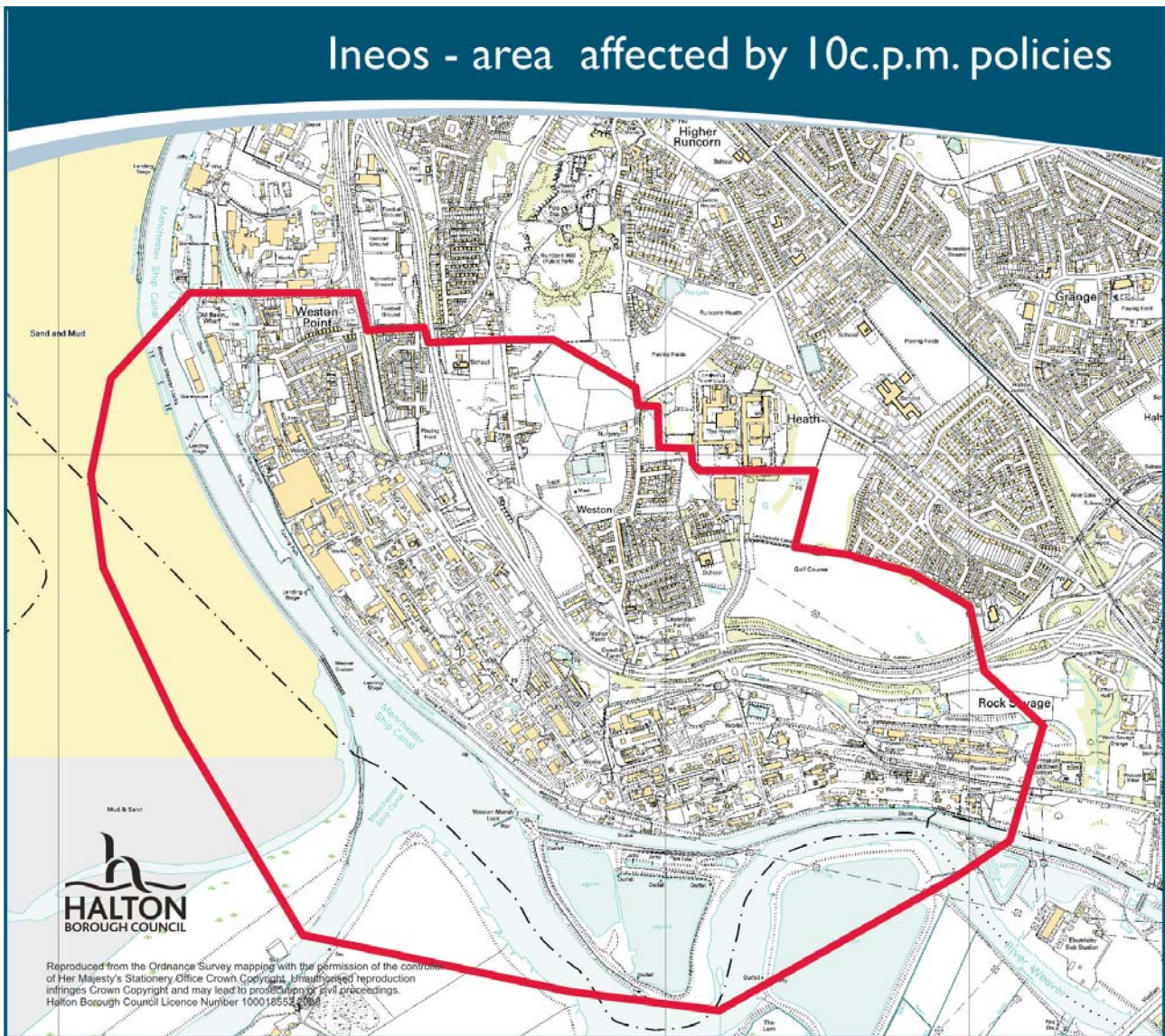
4 These sites and zones will be revised and

Univar - area affected by 10c.p.m. policies



updated based upon any new information relating to:

- More detailed information on defined areas of accidental risk.
- Approval of any new HSC's, pipelines or airports
- Revocation of any existing HSC's
- Modification or reassessment of any existing HSC's

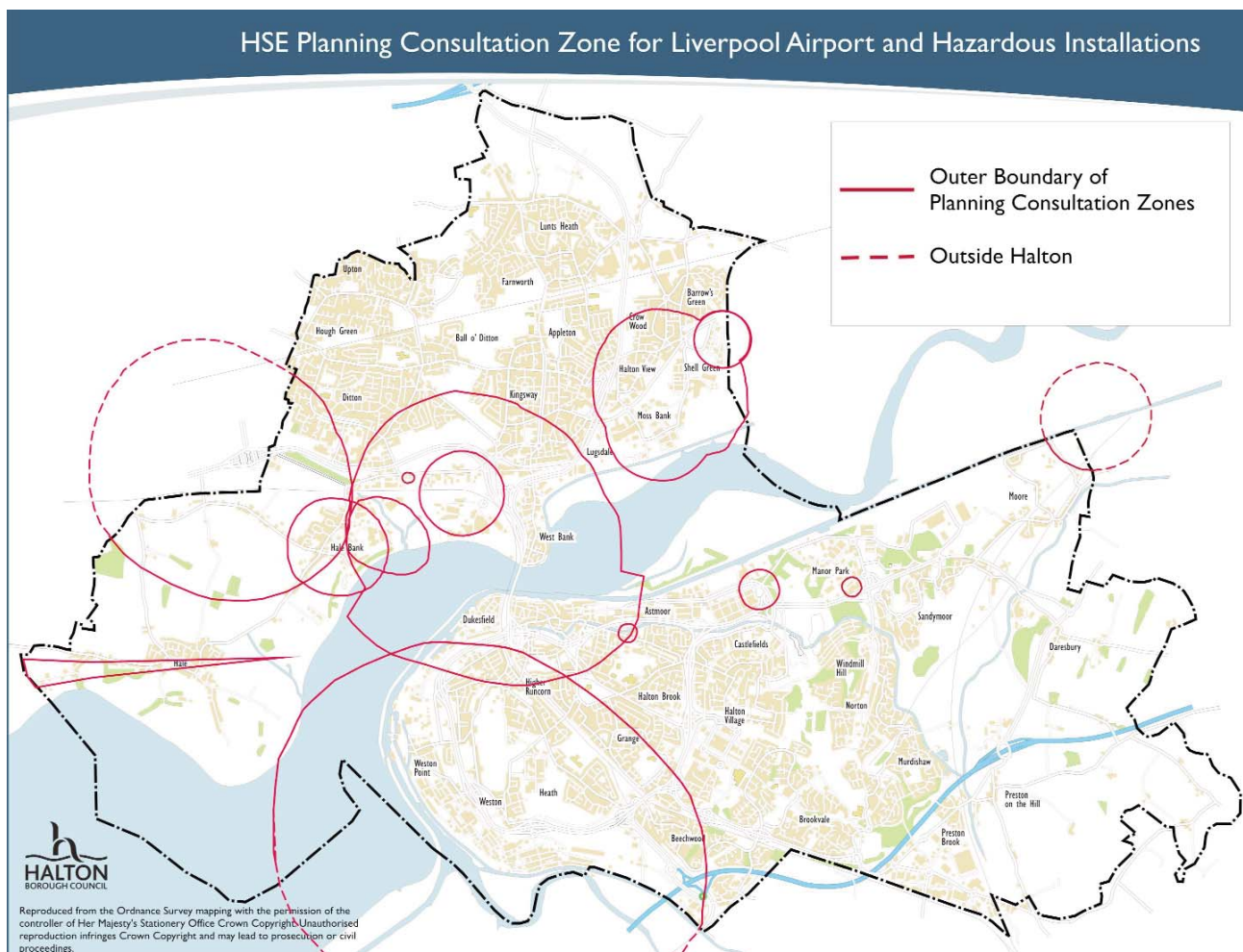


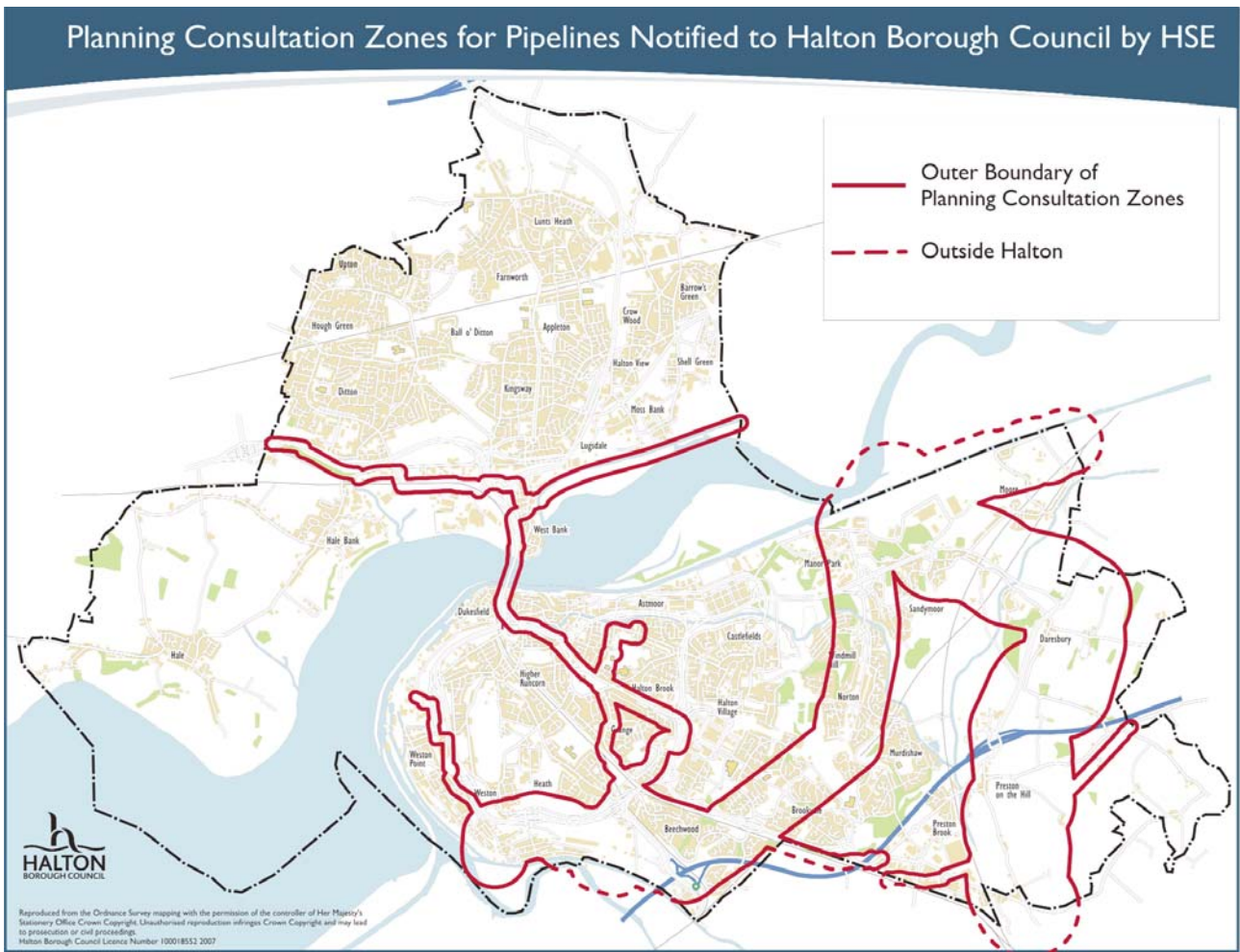
Appendix E

Planning consultation areas for Liverpool Airport, pipelines and Hazardous Installations in relation to UDP Policies S5, PR9, PR11 and PR12

- 1 The main purpose of these maps is to identify those areas within which the Council as Local Planning Authority is expected to consult the HSE or Liverpool Airport when new development proposals are put forward.
- 2 It should be noted that the area related to Liverpool Airport is the same as the 10 cpm area. That is because the airport has no interest in being consulted about areas outside this Public Safety Zone from the

- viewpoint of airport accidents which could have an effect upon people or the environment within Halton
- 3 The other planning consultation zones shown on the map are those derived from formal notification from the HSE and require, for certain types of planning application, that consultation takes place with the HSE. Most of these consultations are carried out using the HSE's PADHI system held within the Council's offices which usually generates a "do not advise against" comment. Where the PADHI system generates an "advise against" comment, further consultation takes place with the HSE before the Council makes any determination on a planning application and due regard is given to those comments along with all other relevant policy matters set out in this SPD.





4 The Council is the responsible authority for receipt of notification of various sorts of pipeline which fall under various pieces of pipeline legislation including the Pipeline Safety Regulations 1996. When these pipelines have been notified to the HSE some generate significant consultation zones in accordance with the HSE's procedures. The HSE then expects to be consulted on development proposals in a similar way to COMAH arrangements.

- 5 These zones will be revised and updated based upon any new information relating to:
- Approval of any new HSC's pipelines or airports
 - Revocation of any existing HSC's
 - Modification or reassessment of any existing HSC's pipelines or airports

6 It is important to appreciate that this SPD does not deal with policy PR10 (Development within the Liverpool Airport Height Restriction Zone) which affects nearly the whole Borough. Because its primary purpose relates to protecting the safe passage of air traffic into and out of Liverpool Airport it is not relevant to this SPD although the Council must take it into account in dealing with planning applications in accordance with the requirements set out in joint Circular 1/2003. It is a policy concerned with protecting a spatial planning activity (and its users) located in Liverpool City Council's area (i.e. the airport) and does not relate directly to planning policies affecting individual accidental risks to people who live or work within Halton, which is what policy PR9 addresses.

Appendix F

Information sources

European legislation

Directive 96/82/EC
 Directive 2003/105/EC

For these and other European legislation reference should be made to the UK national legislation created to implement it (see below).

UK national legislation

To access a downloadable copy of the relevant **Acts of Parliament** go to:
www.opsi.gov.uk/acts.htm

1990 - Planning (Hazardous Substances) Act
 2004 - Planning & Compulsory Purchase Act

To access a downloadable copy of the relevant **Statutory Instruments** go to:
www.opsi.gov.uk/stat.htm

1982 - Notification of Installations Handling Hazardous Substances Regulations
 1992 - Hazardous Substances COMAH Regulations
 1996 - Pipeline Regulations - SI 1996/825 - Pipeline Safety Regulations 1996 - defines major hazard accident pipelines.
 1999 - Hazardous Substances COMAH Regulations
 1999 - Planning (Hazardous Substances) Regulations - SI 1999/981 - Planning - Control of Major Accident Hazards Regulations 1999 (COMAH) – amending earlier SI dealing with Planning HSC matters.
 2002 - Town & Country Planning (Safeguarding Aerodromes, Technical Sites and Military Explosives Storage Areas) Direction 2002 within the associated Circular. This

Direction and Circular provide the authority and sourcing for the safeguarding maps held by Halton Council and categories of development controlled in the interests of public safety for air passengers. These include, for example, policy control issues relating to bird strikes and wind turbines as they affect air safety, as well as restricting the height of development in general through large parts of Halton.

2004 - SI 2004/2204 - Town & Country Planning (Local Development) (England) Regulations - and the requirement to take account of COMAH in Development Plans go to www.opsi.gov.uk/si/si2004/20042204.htm ;

UK national and regional policy guidance

To access a downloadable copy of the relevant **Government Planning Policy Statements** go to:
www.communities.gov.uk

1996 - HM Treasury 3 November 1996 Press Release on setting of safety standards (not available online)
 2000 - DETR Circular 04/2000 Planning Controls for Hazardous Substances
 2002 - Department for Transport Circular 01/2002 Control of Development in airport Public Safety Zones which provides guidance on the operation of the consent procedure for hazardous substances which implement the land use planning requirements of Directive 96/82/EC, known as the Seveso Directive, on the control of major-accident hazards. It also provides guidance on philosophy and risk levels applicable within PSZ's and consequences in terms of restrictions on development and provisions for compensation (same philosophy applied by HBC to COMAH zones as well) <http://www.dft.gov.uk/pgr/aviation/safety/c>

- ontrolofdevelopmentinairpor2984;
- 2003 - DfT/ODPM Circular 1/2003 which provides advice to local planning authorities in England and Wales regarding the safeguarding of aerodromes, technical sites and military explosives storage areas. It contains rules in relation to height of buildings and types of development.
<http://www.dft.gov.uk/pgr/aviation/safety/safeguarding/safeguardingaerodromestechni> 2988 and includes The Town and Country Planning (Safeguarded Aerodromes, Technical Sites and Military Explosives Storage Areas) Direction 2002, which is reproduced at Annex 1 of this Circular and which came into effect on 10 February 2003, applies to military explosives storage areas in addition to aerodromes and technical sites.
- 2003 - Environment Agency Flood Risk – R&D Technical Report FD2317 – July 2003
- 2004 - Planning Policy Statement 12 Annex B paragraphs B17 & B18

Halton Council documents

- 1996 - Local Plan
- 2005 - UDP - To access a downloadable copy of the relevant **sections of the UDP** go to http://www.cartoplus.co.uk/halton/text/00pref_4_strat_pol.htm for Strategic Policies (Part 1) and look at Policy S5. For detailed (Part 2) policies go to http://www.cartoplus.co.uk/halton/text/04_pr_pollution.htm for the whole of Chapter 4 and in particular paragraphs 7 – 11 of the introduction and policies PR9 – PR12
- 2003 - Planning application containing expert report about safety and ethylene pipeline number 03/00706/OUT was approved 02 February 2004. The proposal was an outline application for construction of area short term custody facility and ancillary development including landscaping and car parking, with all

matters reserved, on Land At Manor Park Runcorn Cheshire. For further information and to be able to examine the submitted report contact Halton Council's Operational Director, Environment and Regulatory Services.

HSE policy advice

- 2007 - PADHI – Planning Advice for Development around Hazardous Installations
- 2007 - HSE Consultation document CD212 Proposals for revised policies to address societal risk around onshore non-nuclear major hazard installations – published April 2007
- 2007 - HSE Consultation document CD212 Initial regulatory impact assessment Proposals for revised policies to address societal risk around onshore non-nuclear major hazard installations – published April 2007

Other Documents

- 1993 Risk Analysis and Management - article by M. Granger Morgan in the July 1993 issue of Scientific American.

Appendix G

Summary of all policies contained in SPD with references to UDP policies

4 Policies for Risk creating sites

Policies for development at existing sites designated under the Planning (Control of Major-Accident Hazards) Regulations 1999 or similar legislation or major accident pipelines

- 4.3 Development within a designated hazardous installation establishment or which is a development of an existing major accident pipeline will be permitted provided:**
- the applicant can demonstrate the proposal will impose no significant development restrictions in terms of off-site accidental risk on surrounding land users, and;
 - the applicant can demonstrate the proposal has no reasonable alternative method of achieving the development's objective. (see UDP policy PRI 1)

Policies for development at new sites for Airport Development or designated under the Planning (Control of Major Accident Hazards) Regulations 1999 (COMAH) or hazardous pipelines

- 4.8 In deciding any proposal for airport development within Halton one of the tests will be that the applicant can demonstrate the proposal will impose no significant development restrictions in terms of off-site accidental risk on surrounding land users (see UDP policy S5).**

- 4.11 New hazardous installation or proposals that fall within the designated COMAH definition or is a hazardous pipeline will be permitted provided:**
- the applicant can demonstrate that the proposal will impose no significant development restrictions in terms of off-site accidental risk on surrounding land users, and;
 - the applicant can demonstrate the proposal has no reasonable alternative method of achieving the development's objective (see UDP policy PRI 1)

Policy for Inactive Hazardous Substances Consent

- 4.16 Sites which have Hazardous Substances Consent and which are inactive will be revoked.**

5 Policies for Development around established Risk creating sites

Policies restricting developments around Liverpool Airport and Public Safety Zone policy

5.3 Development within the Liverpool Airport PSZ will only be permitted if it comprises a dwelling extension or it would not reasonably be expected to increase the numbers of people living, working or congregating in or at the property or land (see UDP policy PR9).

5.5 Development within the Liverpool Airport PSZ involving very low density of occupation of land may be allowed in certain circumstances (see UDP policy PR9).

Policies for restricting developments around established COMAH sites which create significant off site accident risks

5.7 Development on land within areas around established hazardous installations identified as having an individual accidental risk level exceeding 10 cpm will not normally be permitted (see UDP policy PR12).

5.10 Proposals made by a developer that will mitigate the likely effects of a potential major accident so that they are not considered significant will normally be permitted (see UDP policy PR12).

Policies around existing hazardous installations and accident pipelines and which do not create significant off site accidental risks

5.15 Development on land within areas around existing hazardous installations and pipelines identified as having an individual accidental risk level below 10 cpm will normally be permitted (see UDP policy PR12 and S5).



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