

*Outline Application for Residential Development (about 50 Dwellings) and Public Open Space with  
Wildlife Area at Four Gun Field, Otterham Quay Lane, Upchurch.  
Explanatory Statement by the Health and Safety Executive*

**Outline Application for Residential  
Development (about 50 Dwellings) and  
Public Open Space with Wildlife Area at  
Four Gun Field, Otterham Quay Lane,  
Upchurch.**

**Swale Borough Council Application Number SW/12/1243  
HSE Reference SBC.1384-2013-00025**

Explanatory Statement on behalf of the Health and Safety Executive,  
March 2013



## **Contents**

SUMMARY	3
INTRODUCTION	3
PLANNING AND LEGAL BACKGROUND	4
POLICY BACKGROUND	5
CASE BACKGROUND	6
THE NOTIFIED HAZARDOUS PIPELINE	8
HSE'S APPROACH TO LAND-USE PLANNING ADVICE AND ITS BASIS FOR JUDGEMENT	9
HSE'S ASSESSMENT OF APPLICATION No. SW/12/1243	10
INCIDENTS INVOLVING PIPELINES	12
RISK REDUCTION MEASURES	13
CONCLUSION AND HSE'S ADVICE TO SWALE BOROUGH COUNCIL	14
REFERENCES	14
Annex A - A brief account of HSE's Natural Gas Pipeline Risk Assessment Methodology	16
Annex B - "PADHI" (Planning Advice for Developments near Hazardous Installations) – HSE's land-use planning methodology	19
Doc. 1A – Indicative Plan Supplied with Application	20
Doc. 1B – Proposed Development Site in Relation to Pipeline	21
Doc. 2 – SoS letter calling-in the proposed development of the Oval Cricket Ground	23
Doc. 3 – HSE Response to Consultation and PADHI+ Audit Summary	26

## **SUMMARY**

1. This statement describes briefly the history and framework under which the Health and Safety Executive (HSE) provides advice to local planning authorities on planning applications in the vicinity of major hazard installations and pipelines. It explains how HSE's risk assessment methodology has been applied to give advice to Swale Borough Council in respect of the proposed residential development of about 50 dwellings and public open space at Four Gun Field, Otterham Quay Lane, Upchurch, in the vicinity of a high pressure natural gas pipeline.
2. In the HSE view, the development would introduce members of the public into an area of concern in the vicinity of the notified pipeline. Our risk assessment, taking account of the size, nature and other characteristics of the proposed development, leads HSE to conclude that the residual risk at the development site would be sufficiently high for HSE to advise against the granting of planning permission.

## **INTRODUCTION**

3. This statement is submitted as explanation of HSE's advice to Swale Borough Council in connection with the planning application (SW/12/1243) by Independent Management Ltd for dwellings and public open space at Four Gun Field, Otterham Quay Lane, Upchurch. It is made following a request from the Area Planning Officer, Rob Bailey, for a written response setting out HSE's position including the likelihood of an incident and the level of risk associated with the proposed development.
4. The statement describes briefly the history and framework under which HSE provides advice to local planning authorities on planning applications in the vicinity of major hazard installations and pipelines,

and explains the reasons for HSE's advice to Swale Borough Council against the granting of planning permission in this case.

5. An indicative plan showing the location and revised layout details, supplied by the developer in January 2013, is at Doc. 1A. A map showing the location of the proposed development site in relation to the natural gas pipeline is at Doc. 1B.

### **PLANNING AND LEGAL BACKGROUND**

6. Following the recognition of a problem in the late 1960's, the implications of hazardous installations for land-use planning were formalised in 1972 with the issue of DOE Circular 1/72 "Development involving the use or storage in bulk of hazardous material". This circular advised planning authorities to consult HM Factory Inspectorate (now part of HSE) before granting planning permission for certain classes of development (known as major hazards) and for developments in the vicinity of major hazards. The current version of this circular, reflecting current legislation, is DETR Circular 04/2000 "Planning Controls for Hazardous Substances" [1].
7. In 1974 there was an explosion at a chemical works in Flixborough, Humberside, which killed 28 people on site and caused extensive damage to housing some distance away. This incident together with others elsewhere in Europe emphasised the need for control over sites containing hazardous substances and on developments in their vicinities.
8. Control on sites, under the framework of the Health and Safety at Work etc Act 1974, was developed in the Notification of Installations Handling Hazardous Substances Regulations 1982 (NIHHS) and the Control of Industrial Major Accident Hazards Regulations 1984 (CIMA) and now replaced by the Control of Major Accident Hazards Regulations 1999 (COMAH), the UK implementation of the Seveso II Directive. Hazardous pipelines were subject to the NIHHS Regulations and now the Pipeline Safety Regulations 1996 (PSR) [2]. The location, routing, operating

pressure and integrity of pipelines are controlled by PSR in conjunction with industry codes and standards including IGEM/TD/1 [3] and BS 8010 [4].

9. Local planning authorities are required by law to consult HSE on certain proposed developments within an area notified to the local planning authority by the HSE because of the presence within the vicinity of toxic, highly reactive, explosive or inflammable substances, and to take into account advice from HSE when making planning decisions [5]. These notified areas are HSE's consultation zones around major hazard establishments and pipelines (Paragraph A15 of [1]).

10. When HSE advises that a planning application should be refused on safety grounds, local planning authorities are guided not to override HSE's advice "without the most careful consideration" (Paragraph A5 of [1]).

## **POLICY BACKGROUND**

11. In developing policy and formulating advice, HSE takes account of the views of the Advisory Committee on Major Hazards (ACMH). This was a committee of experts set up by the Health and Safety Commission following the explosion at Flixborough to analyse the factors giving rise to risks from major hazard plant and pipelines, and to recommend means of controlling and mitigating the risks. The ACMH produced three reports and in considering the planning system as a potential mechanism of control concluded:-

### ***Second Report Para 102***

*"One of the main objectives of planning controls is to ensure that incompatible land uses are kept apart. In our view any proposed development or redevelopment involving a significant increase in the population in the vicinity of a hazardous undertaking, must be carefully*

*examined to see whether the nature and situation of the development renders it compatible with its surroundings ...".*

**Third Report Para 80**

*"As we have already said, absolute safety in any sphere of human endeavour is impossible and it would be imprudent not to take account of the possibility of a major accident, however remote. Where there is a potential for such an accident, mitigating measures can be taken to reduce the impact upon people outside the installation. Firstly common sense suggests that it is wise, if possible, to keep major hazard plants away from centres of population; similarly it is wise to avoid a substantial growth in population near an existing installation ..."*

The arrangements in Circular 04/2000 [1] apply these ACMH recommendations to hazardous pipelines, as well as installations.

12. Relevant national planning policy is currently set out in Planning Circular 04/2000 [1], for example, as recognised by the Secretary of State in his letter calling-in for his own determination the proposed redevelopment of the Oval Cricket Ground, Kennington, London (see Doc 2). This circular, and its predecessors, established the HSE as the Government's provider of independent and impartial public safety advice to local planning authorities so that these authorities, and other planning decision-makers, can implement the land use planning recommendations of ACHM, and where appropriate the associated requirements of EU Directive 96/82/EC as amended (the Seveso II Directive), to manage development that would increase the risk or consequences of major accidents.

**CASE BACKGROUND**

13. Swale Borough Council obtained HSE's advice on planning application number SW/12/1243 by using HSE's methodology and software known

as PADHI+ (Planning Advice for Developments near Hazardous Installations), which is available on-line to planning authorities, to enable them to consult HSE directly for advice on developments around major hazard sites and major hazard pipelines.

14. PADHI+ uses the following information to determine HSE's advice:

- the type of development (e.g. workplace, housing, shops, school, etc.), its size and intensity, and
- the proximity of the proposed development to the major hazard site or major hazard pipeline, in terms of three zones (inner, middle and outer) around the site or pipeline.

HSE, through PADHI+, will either advise against, or not advise against, the granting of planning permission.

15. PADHI+ generated a file note with HSE's advice on 7<sup>th</sup> February 2013, advising the local authority that there are sufficient reasons, on safety grounds, for advising against the granting of planning permission. A copy of the note and the PADHI+ audit summary is given at Doc. 3. The note contains the following paragraphs:

*"HSE's advice is based on our assessment of the risks from the pipeline as originally notified to us. It may be that in the vicinity of the proposed development, the operator has modified the pipeline to reduce risks by, for example, laying thick-walled pipe. **If you wish to contact the operator for this information then HSE is willing to reassess the risks from the pipeline, relative to the proposed development, if all the following details are supplied to HSE by you:***

- *Pipeline diameter, wall thickness and grade of steel*
- *Start and finish points of thick walled sections (not required if it is confirmed that they are more than 750m from all parts of the development site).*

*These details to be clearly marked on a pipeline strip map, or other appropriate scale map, then included with the consultation full resubmission. Please clearly identify on your covering letter that it is a resubmission with additional details of the major hazard pipeline.”*

16.HSE has received no information from Swale Borough Council about modifications to the pipeline in the vicinity of the proposed development. As HSE has not been asked to reassess the risks at this location, our advice against the proposed development stands.

#### **THE NOTIFIED HAZARDOUS PIPELINE.**

17.The pipeline which has caused the consultation in this case is the Rainham BV/Key Street PRS Scotia Gas Networks High Pressure Pipeline, GM5-0530. The route of this pipeline is along Canterbury Lane to the south of the proposed development site, following the District Boundary (see Doc. 1B).

18.Information about this pipeline, notified to HSE by the operator, on which the risk assessment is based is as follows:

<b>Pipeline Information used in the Risk Assessment.</b>	
Pipeline Diameter (mm)	457
Wall Thickness (mm)	9.5
Grade of Steel	X52
Minimum Depth of Cover (m)	0.9
Maximum Allowable Operating Pressure (bar)	38
Fluid	Natural Gas

19.HSE’s risk assessment methodology for natural gas pipelines, which is based on fireballs and jet-fires for a range of gas release sizes, is



outlined in Annex A. When applied to the Rainham/Key Street pipeline, the following distances were obtained:

<b>Land Use Planning Zone Boundary Distances (m)</b>	
Inner Zone	9
Middle Zone	95
Outer Zone	110

### **HSE'S APPROACH TO LAND-USE PLANNING ADVICE AND ITS BASIS FOR JUDGEMENT**

20.HSE's approach to providing land-use planning advice has been published [6]. The approach is based on general principles which include:

- the advice is based on the residual risk to people which remains after all reasonably practicable measures, as required by the Health and Safety at Work etc. Act 1974 and its relevant statutory provisions, have been taken at the establishment where the hazardous substances are present;
- account is taken of the size and nature of the proposed development, the inherent vulnerability of the exposed people and the ease of evacuation or other emergency procedures. Some types of development (e.g. schools and hospitals) are regarded as more sensitive than others (e.g. light industrial) with the advice weighted accordingly; and
- the advice is based on the risk of serious injury, not just fatality, with particular weight given to proposed development which might result in large numbers of casualties in the event of an accident.

HSE has adopted the same principles for providing advice in respect of major hazard pipelines.

21.When considering planning applications, HSE uses a categorisation scheme which groups development types broadly according to size, nature (indoor/outdoor), inherent vulnerability of the exposed population,

proportion of time people are likely to be present, and ease of evacuation and other emergency measures. The scheme described in Reference [6], Chapter 5, has now been replaced by a newer one, known by the acronym 'PADHI' (Planning Advice for Developments near Hazardous Installations), based on Sensitivity Levels and Development Types. The PADHI methodology and the on-line software system for formulating advice (known as PADHI+) are outlined in Annex B.

22. It is HSE's policy not to advise against low population density industrial and equivalent developments, except where developments are specifically for disabled people, at all levels of residual risk around major hazard establishments (Reference [6], Paragraph 84). This reflects the likelihood that the people present at such development would be mainly fit and healthy and could be organised easily for emergency action, and that members of the general public would at most be present in small numbers and often only for short periods.
23. It is HSE's policy to advise against significant residential developments and developments involving a significant public presence, in the consultation Inner or Middle Zones.

#### **HSE'S ASSESSMENT OF APPLICATION No. SW/12/1243**

24. The site of the proposed development extends from about 9 m away from the pipeline to about 200 m away from the pipeline. Based on plans on Swale Borough Council's website dated January 2013, 50 residential units and an area of public open space are proposed.
25. As noted above, it is HSE's policy to advise against significant residential developments in the consultation Middle Zone. A significant residential development is considered to be one which involves more than 30 dwelling units, or more than 2 dwelling units where the density is greater than 40 units per hectare. This policy is reflected in the advice generated by PADHI+ and therefore in HSE's response to the consultation on the

applicant's proposal. In terms of the PADHI+ system, the sensitivity level of this development is 3, because it is for more than 30 dwellings.

26. About half of the site lies within the Consultation Distance (CD) for the pipeline, of 110 m. Of the area proposed for dwellings, about half lies in the middle zone. Based on the PADHI+ rules for developments which straddle zones, the housing is determined to be in the middle zone. This takes account of the fact that people in the outer zone are still at risk and therefore it is appropriate to consider them.
27. Occupants of housing in the middle zone have a likelihood of between one and ten chances per million per year of receiving a "dangerous dose" of heat from a massive jet fire or fireball, following a pipeline failure and ignition of the escaping gas. This heat would be sufficient to kill a small fraction of the exposed population and seriously injure the rest.
28. One of HSE's published principles is that when giving advice it will take account of the need for planning authorities to maintain appropriate distances between major hazards and developments used by people. This is to meet Article 12 of the Seveso II Directive which requires Member States to ensure that the objectives of the Directive – the prevention of major accidents involving hazardous substances and limiting their consequences for man and the environment – are taken into account in their land use planning policies. Granting planning permission for successive new developments could over time substantially increase the number of people in the consultation zones around the major hazard site or pipeline, and so increase the consequences should a major accident occur.
29. It has been suggested that PADHI+ would not advise against the proposed development if it were submitted as two separate planning applications. It is incorrect to conclude that this means that the development would not be of concern to HSE. HSE's PADHI+ system is intended to consider applications on a case-by-case basis, and

consequently, PADHI+ is not designed to consider previous applications, or two applications for adjoining sites, in determining HSE's advice. Submitting planning applications by artificially dividing them up in this way would in this case lead to advice which is contrary to HSE's approach and the Article 12 principle outlined above. In order to prevent PADHI+ being manipulated in this way, HSE would expect planning authorities to take account of associated or related applications for a site, in order to ensure that the appropriate HSE advice is considered when determining such applications. Therefore, if two, or more, planning applications are submitted for a site, or adjoining sites, seeking planning permission to build more than two dwelling units in total (in the case of residential developments), in an attempt to circumvent HSE's appropriate PADHI+ advice, a planning authority should contact HSE in order to receive the appropriate advice on the proposed development, rather than use PADHI+ to obtain HSE's advice on each individual application.

30. In summary, the proposal, application no. SW/12/1243, includes significant housing in the middle zone; HSE advises against such development.

#### **INCIDENTS INVOLVING PIPELINES**

31. Failure of a major pipeline is a rare event but it cannot be dismissed as impossible or incredible. Reference 7 gives numerous examples of pipeline accidents involving the release and ignition of high-pressure flammable substances. Three examples from this reference are noted below to illustrate that the fireballs and jet-fires modelled in HSE's risk assessment methodology have occurred in past accidents.
32. In February 1994 a 1067 mm diameter pipeline conveying natural gas at 83 barg failed due to ductile fracture near Maple Creek, Saskatchewan, Canada (Reference [7], page C91). The gas was ignited almost immediately and a very large fireball, probably followed by a jet fire, occurred. A burn area of 8.5 hectares was reported.

33. In March 1994 a 914 mm diameter pipeline conveying natural gas at 68 barg failed due to metal fatigue near Edison, New Jersey, USA (Reference [7], page C27). The gas was ignited one or two minutes after rupture and resulted in a very large jet-fire.
34. In June 1978 a 273 mm pipeline conveying natural gas at 9.1 barg was pierced by an excavator in Kansas City, Missouri, USA (Reference [7], page C67). The released gas did not ignite immediately. Some 1.75 hours later, while the hole was being repaired, hand tools ignited the gas, leading to a jet fire, as a result of which two people were seriously injured.
35. Serious pipeline failures can occur in the UK as well as elsewhere. For example, a 914 mm pipeline conveying natural gas at 48 bar fractured at Palaceknowe near Moffat in Scotland in December 1993, due to differential settlement where the pipeline had been diverted (Reference [8], page N.1). Approximately 1000 t of natural gas was released, but fortunately it did not ignite and there were no injuries.
36. Finally, a more recent example of a pipeline failure occurred in July 2004, when a 1000 mm pipeline conveying natural gas at 60 bar from Zeebrugge to the French border ruptured at Ghislenghien in Belgium and later exploded (Reference [9]). The incident resulted in 24 deaths and over 120 injuries.

### **RISK REDUCTION MEASURES**

37. As indicated in paragraph 15 above, HSE is willing to reassess the risks from the pipeline if it has been modified locally to reduce risks. HSE would also be prepared to reassess the risks if the applicant wished to consider implementing such measures. These could include replacing a section of pipe with stronger, thick wall pipe or placing slabs above the pipeline. Such measures could significantly reduce the extent of HSE's consultation zones and alter HSE's advice on this application. The

pipeline operator should be contacted for further information on the practicability of local protection measures.

38. It is also possible that alternative layouts of the development could alter HSE's advice. The Design and Access Statement, included on the Council's website, identifies a number of layout options that have been considered. If the dwellings were further separated from the pipeline, so that, for example, all were beyond HSE's Middle Zone boundary, i.e. more than 95 m from the pipeline, and were located in the Outer Zone and beyond, then this could achieve the separation of people from the major hazard pipeline that is the objective of HSE's land use planning advice.

#### **CONCLUSION AND HSE'S ADVICE TO SWALE BOROUGH COUNCIL**

39. For a well-maintained pipeline the chances of an incident occurring are very low. However, even when there is full compliance with all the relevant statutory provisions, a residual risk remains. In this case, assessment using the PADHI methodology, taking account of the size, nature and other characteristics of the proposed development, leads HSE to conclude that the residual risk at the development site would be sufficiently high for HSE to advise against the granting of planning permission. Risk reduction measures, either providing additional protection for the pipeline or alternative layouts to further separate people from the pipeline, are available for the developer to consider.

#### **REFERENCES**

[1] Planning Controls for Hazardous Substances, Department of the Environment, Transport & the Regions Circular 04/2000, 8th May 2000, available at:

[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/7684/155160.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/7684/155160.pdf)

[2] The Pipelines Safety Regulations 1996, SI 1996/825, available at:

<http://www.legislation.gov.uk/uksi/1996/825/contents/made>

[3] The Institution of Gas Engineers & Managers, Steel Pipelines and Associated Installations for High Pressure Gas Transmission, IGEM/TD/1 Edition 5: 2008.

[4] British Standards, Code of Practice for Pipelines – Part 1; Steel Pipelines on Land, Published Document PD 8010-1:2004.

[5] The Town and Country Planning (Development Management Procedure) (England) Order 2010 SI 2010 No.2184:  
<http://www.legislation.gov.uk/uksi/2010/2184/made>

[6] HSE, Risk Criteria for Land Use Planning in the Vicinity of Major Industrial Hazards, HMSO, ISBN 0 11 885491 7, 1989. (Available from HSE Books at: <http://books.hse.gov.uk/hse/public/home.jsf> )

[7] HSE, Report on a second study of pipeline accidents using the health and Safety Executive's risk assessment programs MISHAP and PIPERS, Research Report 036, available at:  
<http://www.hse.gov.uk/research/rrpdf/rr036.pdf>.

[8] HSE, Report on a study of international pipeline accidents, Contract Research Report 294/2000, available at:  
[http://www.hse.gov.uk/research/crr\\_pdf/2000/crr00294.pdf](http://www.hse.gov.uk/research/crr_pdf/2000/crr00294.pdf).

[9] Haroun Mahgerefteh and Olufemi Atti, University College London, An Analysis of the Gas Pipeline Explosion at Ghislenghien, Belgium, available at:  
<http://www3.aiche.org/Proceedings/Abstract.aspx?PaperID=40438>

## Annex A

### A brief account of HSE's Natural Gas Pipeline Risk Assessment Methodology and Application to the Rainham/Key Street Pipeline

A1. HSE's risk assessment methodology for pipelines conveying flammable gases is built around an event tree describing the possible outcomes of failures at the pipeline. These include:

- a full bore double ended rupture of the pipeline
- a large hole in the pipeline
- an intermediate sized hole in the pipeline
- a small hole in the pipeline

A2. Each failure type is assigned a frequency of failure in events per meter per year. For the Rainham/Key Street pipeline the assessed failure frequencies are:

Failure Type	Frequency for Rainham/Key Street Pipeline (chances per million per metre per year)
Rupture	0.0295
Large hole	0.00325
Intermediate hole	0.0181
Small hole	0.266

A3. For each of the failures there are defined some possible outcomes and associated conditional probabilities (CP). These are:

- (i) That the natural gas is ignited immediately in the event which caused the failure (CP = 0.25).
- (ii) That the gas flow is unobstructed (CP = 0.5)
- (iii) That the gas is ignited locally after a delay (CP = 0.25)
- (iv) That the gas is ignited remotely, after a delay (CP = 0 for natural gas).

A4. If outcome (i) occurs the consequences are a fireball involving the released contents of the pipeline over the short time between release and ignition, followed by a jet-fire involving the continuing flow from the pipeline.

A5. If outcome (ii) occurs there is a possibility introduced of a flash fire on later delayed remote ignition. However, for natural gas (as in this case) flash fires are not considered because an unobstructed jet release is assumed to entrain sufficient air to dilute the gas below the flammable concentration.

A6. If outcome (iii) occurs there will be a jet-fire only



- A7. If outcome (iv) occurs a flash fire would be considered, but not for natural gas.
- A8. If the gas does not ignite but disperses into the atmosphere, zero risks are calculated.
- A9. The consequences of each outcome are calculated for two different wind speeds to account for both daytime and night-time conditions.
- A10. Risks to individuals are calculated assuming that they might be either indoors or out of doors. People out of doors are assumed to be unable to escape the effects of the fireball. People indoors are assumed to be protected from the fireball and if their building, which has the typical dimensions and materials of construction of a house, is beyond the range to piloted ignition, they are completely protected. If they are within the range to spontaneous ignition they are assumed to escape but receive thermal radiation from the jet fire and may be harmed because of it. Risks of receiving the HSE dangerous thermal dose of 1000 thermal dose units ( $(\text{kW m}^{-2})^{4/3}\text{s}$ ) are calculated. This dose would be sufficient to kill a small percentage of the population and seriously injure the remainder.
- A11. The three zones used in the land-use planning methodology are defined as:

Zone	Risk (in chances per million per year) that a hypothetical house resident will receive the HSE dangerous thermal dose or worse	Distance for Rainham/Key Street Pipeline (m)
Inner Zone boundary	10*	9**
Middle Zone boundary	1	95
Outer Zone boundary	0.3	110

\* In some cases the calculated risk is less than 10 chances per million per year near the pipeline. HSE policy is that the Inner Zone shall be at least as large as the Building Proximity Distance (BPD). The BPD is set for each pipeline based on its design and operating parameters as described in the industry standard (Reference [3]). The computer program used by HSE to calculate pipeline risks does not model some phenomena that may be significant near a damaged pipeline (e.g. angled jet-fires, overpressures, crater formation and debris throw). HSE believes therefore that the calculation may underestimate the true level of risk very near to the pipeline, so the Inner Zone is set to be at least as large as the BPD.

\*\* The calculated risk of receiving the HSE dangerous dose or worse for the Rainham/Key Street pipeline is less than 10 chances per million per year near the pipeline. Therefore the Inner Zone is set at the BPD.

*Outline Application for Residential Development (about 50 Dwellings) and Public Open Space with  
Wildlife Area at Four Gun Field, Otterham Quay Lane, Upchurch.  
Explanatory Statement by the Health and Safety Executive*

For this pipeline HSE has calculated the BPD to be 8.6 m, and this is rounded up to give an Inner Zone boundary of 9 m.

## Annex B

### "PADHI" (Planning Advice for Developments near Hazardous Installations) – HSE's land-use planning methodology

- B1. PADHI (Planning Advice for Developments near Hazardous Installations) is the name given to the methodology and PADHI+ to the software decision support tool developed in HSE. PADHI+ is used by planning authorities to obtain HSE's land-use planning (LUP) advice on proposed developments near hazardous installations where three zones have been identified sub-dividing a consultation distance (CD).
- B2. PADHI+ uses two inputs to a decision matrix to generate the response:
- the first is the 'Sensitivity Level' of the proposed development which is derived from an HSE categorisation system of "Development Types"
  - the second is the zone in which the development is located (HSE sets three zones around the major hazard site or pipeline, making up the CD).

The matrix will generate either an 'Advise Against' or 'Don't Advise Against' response that the software system issues to the planning authority. Additionally there is guidance in the form of 'rules' on how to deal with the more complex cases where:

- the development is located in more than one zone;
  - more than one hazardous installation is involved;
  - the proposal is for more than one development type (using HSE's categorisation method);
  - the application is for an extension to an existing development.
- B3. Instructions for the use of PADHI are published on HSE's website [B1].
- B4. The decision matrix is reproduced here for convenience:

Level of Sensitivity	Development in Inner Zone	Development in Middle Zone	Development in Outer Zone
1	DAA	DAA	DAA
2	AA	DAA	DAA
3	AA	AA	DAA
4	AA	AA	AA

DAA = Don't Advise Against development.

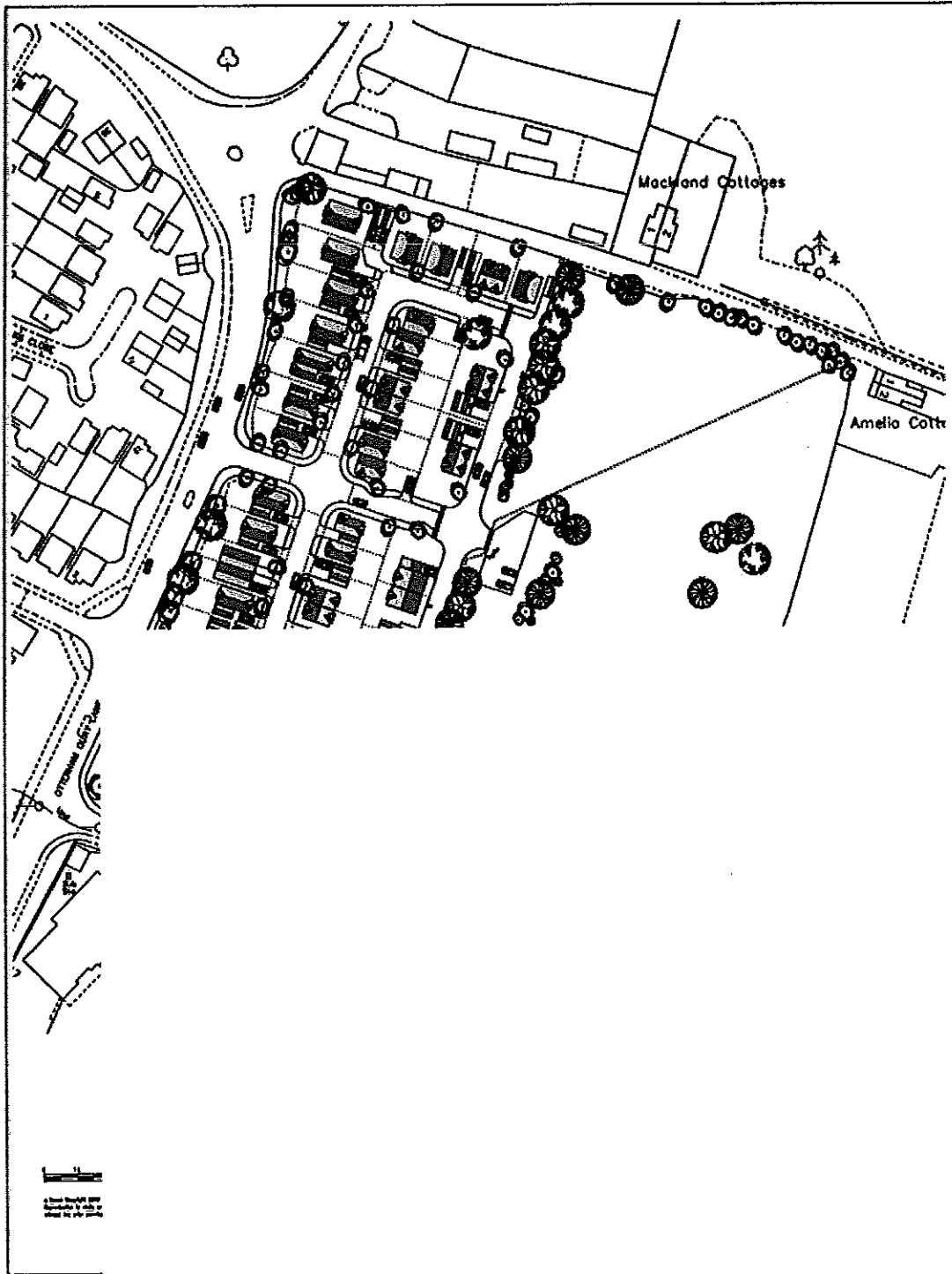
AA = Advise Against development.

#### Reference for Annex B

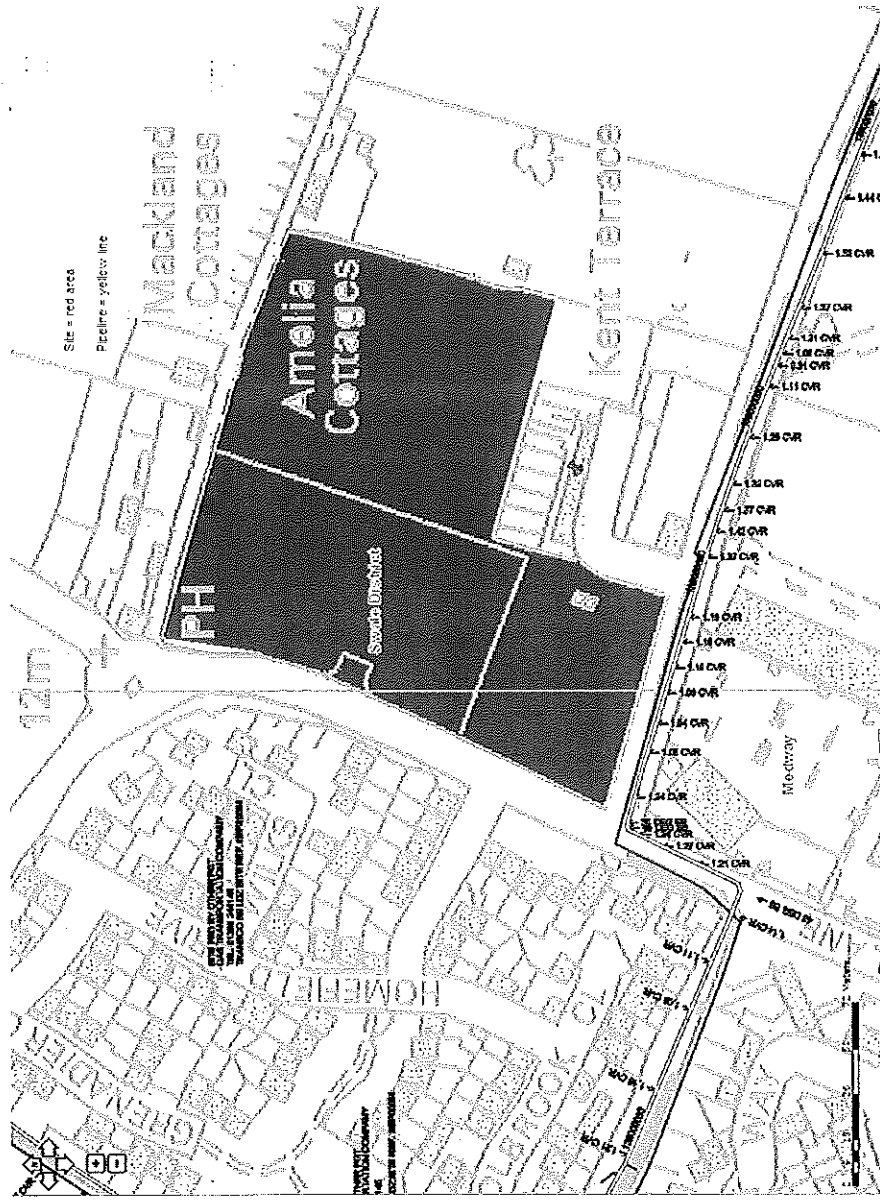
[B1] 'PADHI' (Planning Advice for Developments near Hazardous Installations) - HSE's land-use planning methodology. Available at: <http://www.hse.gov.uk/landuseplanning/padhi.pdf>

Outline Application for Residential Development (about 50 Dwellings) and Public Open Space with  
Wildlife Area at Four Gun Field, Otterham Quay Lane, Upchurch.  
Explanatory Statement by the Health and Safety Executive

**Doc. 1A – Indicative Plan Supplied with Application**



### Doc. 1B – Proposed Development Site in Relation to Pipeline



*Outline Application for Residential Development (about 50 Dwellings) and Public Open Space with Wildlife Area at Four Gun Field, Otterham Quay Lane, Upchurch.  
Explanatory Statement by the Health and Safety Executive*

**Doc. 2 – Secretary of State letter calling-in the proposed redevelopment  
of the Oval Cricket Ground, Kennington, London  
- see in particular paragraph 5(b)**



GOVERNMENT OFFICE  
FOR LONDON

Miss Eileen McCarthy  
LB Lambeth  
Planning Division  
Phoenix House  
10 Wandsworth Road  
London SW8 2LL

9<sup>th</sup> Floor  
Riverwalk House  
157-166 Millbank  
London  
SW1P 4RR

Tel: 0207 217 3168  
simon.brown@gol.gsi.gov.uk

2 May 2008

Dear Miss McCarthy

**TOWN AND COUNTRY PLANNING ACT 1990 – SECTION 77  
THE TOWN AND COUNTRY PLANNING (GENERAL DEVELOPMENT  
PROCEDURE) ORDER 1995  
TOWN AND COUNTRY PLANNING (INQUIRIES PROCEDURE) (ENGLAND)  
RULES 2000  
SURREY COUNTY CRICKET CLUB, KENNINGTON, LONDON**

1. I am directed by the Secretary of State for Communities and Local Government to refer to the application made by Surrey County Cricket Club to the London Borough of Lambeth for full planning permission for the following development on the above land:-

replacement of the existing Surrey Tavern and Lock, Laker and Peter May Stands and other minor associated buildings/structures to create a new plaza and the erection of a six-storey stand incorporating 1,632 additional spectator seats, hospitality and ancillary facilities, together with the erection of a new five-storey building with set back roof plant containing a 168 bedrooms hotel with top floor restaurant fronting Kennington Oval, and incorporating basement car park for 57 spaces, together with the erection of a new two-storey ticket/security office and turnstile system with associated landscaping and infrastructure (07/04598/FUL/DC\_EMR/17496).

2. The Secretary of State's policy on call-in is set out in Richard Caborn's statement of 16<sup>th</sup> June 1999 in reply to a Parliamentary Question tabled by Mr Bill Michie MP. Her policy is to be very selective about calling in planning applications. She will, in general, only take this step if planning issues of more than local importance are involved. Having regard to this policy, the Secretary of State is of the opinion that this application is one that she ought to decide herself because she considers that the proposal may conflict with national and regional policies on important matters. The Secretary of State accordingly directs, under her powers in section 77 of the 1990 Act, that the application shall be referred to her instead of being dealt with by the Council.

3. To consider all the relevant aspects of the proposed development, the Secretary of State has decided to hold a local inquiry. For the purposes of the Town and Country Planning (Inquiries Procedure) (England) Rules 2000 this letter is the "relevant notice" that an inquiry

Outline Application for Residential Development (about 50 Dwellings) and Public Open Space with  
Wildlife Area at Four Gun Field, Otterham Quay Lane, Upchurch.  
Explanatory Statement by the Health and Safety Executive



GOVERNMENT OFFICE  
FOR LONDON

is to be held and the date of this letter is the "starting date". All the arrangements for holding the inquiry will be made by the Planning Inspectorate in Bristol. They will write to you within the next few days to let you know the name and telephone number of the case officer who will handle the matter. Meanwhile the original application, together with any plans and other documents accompanying them which have not already been supplied to this Office (including any related certificates and correspondence), should now be sent to the following address:-

The Planning Inspectorate  
4/03 Kite Wing  
Temple Quay House  
2 The Square  
Temple Quay  
Bristol BS1 6PN

4. Material should be marked for the attention of Mrs Hazel Conibere - her telephone number is 0117 372 8918 (fax 0117 372 8181).

5. On the information so far available, the following are matters about which the Secretary of State particularly wishes to be informed for the purposes of her consideration of the applications:

- a) the representations submitted to the Secretary of State by the Health and Safety Executive concerning the potential risks of the proposed development in proximity to the Kennington Gasholder Station;
- b) whether the proposed development is in accordance with national policy on hazardous installations as set out in Circular 4/2000 *Planning Controls for Hazardous Substances*;
- c) whether an agreement under section 106 of the Town and Country Planning Act 1990 is an appropriate method of meeting the safety concerns of the HSE;
- d) whether the proposed development accords with the relevant provisions of Lambeth Council's Unitary Development Plan adopted in August 2007;
- e) whether the proposed development accords with the relevant provisions of the London Plan 2004 - *Spatial Development Strategy for Greater London* (as amended);
- f) whether any permission should be subject to conditions and, if so, the form they should take; and
- g) any other relevant material planning considerations.

This is to be taken as the Secretary of State's statement under rule 6(12) of the 2000 Rules.

6. In accordance with rule 6(1) and (2) of the Rules, the local planning authority shall ensure that two copies of a statement of case are received by the Secretary of State and one copy has been received by any statutory party as defined in rule 2 within six weeks of the



*Outline Application for Residential Development (about 50 Dwellings) and Public Open Space with  
Wildlife Area at Four Gun Field, Otterham Quay Lane, Upchurch.  
Explanatory Statement by the Health and Safety Executive*



GOVERNMENT OFFICE  
FOR LONDON

starting date (unless the Planning Inspectorate notifies you otherwise). Your attention is drawn to rule 6(11). The Secretary of State will comply with rule 6(4).

7. The statement of case should contain the full particulars of the case which you propose to put forward at the inquiry and a list of any documents to which you intend to refer or put in as evidence. If you are proposing to give evidence, or call another person to give evidence, at the inquiry by reading a written statement (i.e. proof of evidence), your attention is drawn to rule 13.

8. Your attention is drawn to rules 4 and 6(2), in particular to the requirement upon your Council to inform forthwith the Secretary of State of the names and addresses of any statutory parties.

9. Your attention is also drawn to the provisions in rule 14 of the 2000 Rules that the local planning authority and the applicants shall together prepare an agreed statement of common ground and ensure that a copy is received by the Secretary of State and by any statutory party not less than 4 weeks before the inquiry opens.

10. In pursuance of Article 14 of the 1995 Order, the Secretary of State hereby directs the Council not to grant planning permission for any development which is the same kind as that which is the subject of the application referred to above on any land which forms part of, or includes, the site to which the application relates until the Secretary of State has issued her decision on those applications.

11. Although a copy of this letter has been sent to the applicants, your attention is drawn to Article 18 of the 1995 Order. This requires the Council to serve on the applicant notice of the terms of, and the reasons for, the section 77 direction.

Yours sincerely

A handwritten signature in black ink, appearing to read 'Simon Brown', written over a white background.

**SIMON BROWN**  
East London Plans and Casework Team  
Planning Division

### Doc. 3 – HSE Response to Consultation and PADHI+ Audit Summary

Health and Safety Executive  
Hazardous Installations Directorate

Swale Borough Council  
Planning Services  
Swale House  
East Street  
Sittingbourne

Your Ref: SW/12/1243

Our Ref: SBC.1384-2013-00025

07 February 2013

ME10 3HT

This file note is produced by PADHI+ for Swale Borough Council

**Land Use Planning Consultation with Health and Safety Executive [Town and Country Planning (Development Management Procedure) (England) Order 2010, Town and Country Planning (Development Management Procedure) (Wales) Order 2012, or Town and Country Planning (Development Management Procedure) (Scotland) Regulations 2008]**

This file note refers to the proposed development Residential Development 50 dwellings at Four Gun Field, Otterham Quay Lane, Upchurch, input into PADHI+ on 11 Oct 2012 consultation input by Swale Borough Council.

The Health and Safety Executive (HSE) is a statutory consultee for certain developments within the Consultation Distance of Major Hazard Sites/pipelines. This consultation, which is for such a development and also within at least one Consultation Distance, has been considered using PADHI+, HSE's planning advice software tool, based on the details input by Swale Borough Council. The assessment indicates that the risk of harm to people at the proposed development is such that HSE's advice is that there are sufficient reasons, on safety grounds, for advising against the granting of planning permission in this case.

Major hazard sites/pipelines are subject to the requirements of the Health and Safety at Work etc. Act 1974, which specifically includes provisions for the protection of the public. However, the possibility remains that a major accident could occur at an installation and that this could have serious consequences for people in the vicinity. Although the likelihood of a major accident occurring is small, it is felt prudent for planning purposes to consider the risks to people in the vicinity of the hazardous installation. Where hazardous substances consent has been granted (by the Hazardous Substances Authority), then the maximum quantity of hazardous substance that is permitted to be on site is used as the basis of HSE's assessment.

*Outline Application for Residential Development (about 50 Dwellings) and Public Open Space with  
Wildlife Area at Four Gun Field, Otterham Quay Lane, Upchurch.  
Explanatory Statement by the Health and Safety Executive*

If you decide to refuse planning permission on grounds of safety, HSE will provide the necessary support in the event of an appeal.

If, nevertheless, you are minded to grant permission, your attention is drawn to paragraph A5 of the National Assembly for Wales Circular 20/01, or paragraph A5 of the DETR Circular 04/2000. These state that:

"...Where a local planning or hazardous substances authority is minded to grant planning permission or hazardous substances consent against HSE's advice, it should give HSE advance notice of that intention, and allow 21 days from that notice for HSE to give further consideration to the matter. During that period, HSE will consider whether or not to request the [Assembly / \*Secretary of State for the Environment, Transport and the Regions] to call-in the application for [its / his] own determination" (\* Now 'Communities and Local Government' in England.)

The advance notice to HSE should be sent to HSE's Major Accidents Risk Assessment Unit, CI5b, Redgrave Court, 2.2 Merton Road, Bootle, Merseyside L20 7HS or by email to [luppadhici5@hse.gsi.gov.uk](mailto:luppadhici5@hse.gsi.gov.uk). The advance notice should include full details of the planning application, to allow HSE to further consider its advice in this specific case.

As the proposed development is within the Consultation Distance of a major hazard pipeline you should consider contacting the pipeline operator before deciding the case. There are two particular reasons for this:

- The operator may have a legal interest (easement, wayleave, etc.) in the vicinity of the pipeline. This may restrict certain developments within a certain proximity of the pipeline.
- The standards to which the pipeline is designed and operated may restrict occupied buildings or major traffic routes within a certain proximity of the pipeline. Consequently there may be a need for the operator to modify the pipeline, or its operation, if the development proceeds.

HSE's advice is based on our assessment of the risks from the pipeline as originally notified to us. It may be that in the vicinity of the proposed development the operator has modified the pipeline to reduce risks by, for example, laying thick-walled pipe. If you wish to contact the operator for this information then HSE is willing to reassess the risks from the pipeline, relative to the proposed development, if all the following details are supplied to HSE by you:

- pipeline diameter, wall thickness and grade of steel.
- start and finish points of thick-walled sections (not required if it is

*Outline Application for Residential Development (about 50 Dwellings) and Public Open Space with  
Wildlife Area at Four Gun Field, Otterham Quay Lane, Upchurch.  
Explanatory Statement by the Health and Safety Executive*

confirmed that they are more than 750m from all parts of the development site).

These details to be clearly marked on a pipeline strip map, or other appropriate scale map, then included with the full consultation and submitted to HSE's Major Accidents Risk Assessment Unit, CI5, at Redgrave Court, 2.2, Merton Road, Bootle, Merseyside L20 7HS to allow it to be individually assessed (not run through PADHI+). Please clearly identify on your covering letter that it is a resubmission with additional details of the major hazard pipeline.

This advice is produced on behalf of the Head of the Hazardous Installations Directorate, HSE.

Outline Application for Residential Development (about 50 Dwellings) and Public Open Space with  
Wildlife Area at Four Gun Field, Otterham Quay Lane, Upchurch.  
Explanatory Statement by the Health and Safety Executive

HSE PADHI+ - Summary of Q&A

Page 1 of 1

 <b>PADHI+</b> Planning Advice for Developments near Hazardous Installations	<b>Audit Summary</b>
---	----------------------

[Close] [Print]

Below is a summary of the answers you have supplied, please check the following :

Question	Response
Development Description	Residential 50 Dwellings
PADHI+ development type selected	Housing - e.g - houses, flats
Number of Dwelling Units	3 or more
Intermediate (Proposed) Sensitivity Level	2
Number of Dwelling Units (part 2)	More than 30
Determined (Proposed) Sensitivity Level	3
Zone details availability	Zones available
Zone coverage of development at hazard: Rainham BV - Key Street	Middle
Final resultant zone	Middle
Preliminary Development Result	AA
Is the proposed development an extension to an existing facility?	No
Modifier Development Result (Original Advice Stands)	AA

