

Supplementary Planning Guidance (SPG) Greener Resources

SPG 8f Land Contamination

1. INTRODUCTION

- 1.1 In considering planning applications where land is potentially contaminated and remediation may be required the Council will have particular regard to the following: adopted Haringey Unitary Development Plan (1998) Policy RIM 3.4, Haringey UDP First Deposit Consultation (2003) Policy ENV 7, SPG9 and this supplementary guidance. The purpose of this supplementary guidance is to provide guidelines for applicants seeking Council approval to develop land, which may be contaminated.

Background

- 1.2 Government guidance states that contaminated land is a material planning consideration and that the development phase is the most cost effective time in which to deal with problems associated with past soil contamination. For this reason the Council's Unitary Development Policy states:

**UDP 1st Deposit draft (September 2003)
ENV7: Contaminated Land**

“Development proposals on potentially contaminated land will be required to:

- a) Follow a risk management based protocol to ensure contamination is properly addressed.**
- b) Carry out investigations to remove or mitigate any risks to local receptors.**

According to individual site circumstances the Council will require applicants to undertake the following steps:

- A desk top study documenting all previous and existing uses of the site and adjacent land, to include assessment of the potential contamination and a description of potential risks to local receptors.**
- Where land uses have resulted in soil and/ or groundwater contamination a site investigation will be required and reported in the form of a quantitative risk assessment.**
- Where contamination is present and there exists a significant possibility of significant harm being, or likely to be caused to local receptors a remediation strategy must be submitted for approval by the Council. The strategy should include where necessary, subsequent management and monitoring activities.**
- Any remediation works should be fully implemented and verified in a remediation report by a suitably experienced person before occupation of the site. If necessary, monitoring reports after completion of remediation works will be required.**

Development proposals on potentially contaminated land will be refused planning permission where it has not been demonstrated to the satisfaction of the Local Planning Authority that risks associated with potential contamination have been properly addressed.”

Important note

- 1.3 On land where there is likely to be significant contamination it is important that prior to seeking planning approval or to comply with a planning condition that a step-by-step procedure is followed to ensure all contamination issues are properly addressed. The Council recommends:
- “Guidance for the Safe Development of Housing on Land Affected by Contamination”; National House Building Council (NHBC) and Environment Agency (EA) R and D Publication 66, available from the Stationery Office (tel. 0870 600 5522).
 - Other relevant publications (see references below).
- 1.4 The primary objective in dealing with contamination on land should be to demonstrate that it can be safely managed to render the land “fit for purpose” and that it does not present risk of significant harm to people, the environment or structures (local receptors).
- 1.5 The Council published its Contaminated Land Strategy (2004) in response to statutory duties placed on it by the Environmental Protection Act 1990. The strategy outlines the Council’s approach to dealing with contaminated land and summarises the potential risks present in the borough. Copies of the strategy can be obtained from Enforcement Services.
- 1.6 When dealing with a site that may be contaminated, a sequential process should be followed. This is to ensure developers or applicants are not forced to undertake unnecessary expense when investigating potentially contaminated land. The basic steps are:

Table 1: Process Summary for Dealing with Potentially Contaminated Land

	Step	Actions	Submissions to the Council
Phase 1 Hazard identification and assessment	Step 1	Establish former uses of the site. Collect physical data and undertake walk-over survey. Consult regulatory authorities.	Desk Top Study
	Step 2	Identify contaminants of concern; List industries identified in Step 1, identify industry-specific contaminants and geologically-based contaminants.	
	Step 3	Develop conceptual model of the site.	
	Step 4	Undertake Hazard Assessment. Review data and conduct exploratory investigations if further information is required.	
Phase 2 Risk estimation and evaluation	Step 5	Design and implement ground investigation.	Site Investigation Report and Quantitative Risk Assessment Report
	Seek specialist advice	Update Step 3.	
	Step 6	Undertake risk estimation.	
	Seek specialist advice	Obtain generic assessment criteria or calculate site-specific criteria.	
Evaluation and selection of remedial measures	Step 7	Undertake risk evaluation. Identify unacceptable risks from comparison of measured concentrations with appropriate criteria.	Remediation Strategy
	Step 8	Identify and evaluate options for remedial treatment based on risk management objectives.	
Implementation of risk management	Step 9	Select preferred remedial strategy and submit for approval.	Remediation Report
	Step 10	Design and implement remedial works. Undertake verification of remedial action.	
	Step 11	Implement monitoring and maintenance programmes. Complete project.	Monitoring Report

Phase 1 – Risk Assessment

When making a planning application, the applicant is required to provide the Local Planning Authority (LPA) with details of existing and previous land uses of the site, potential contamination and likely risks associated with the site. A desktop study (Steps 1 – 4) is recommended before making an application which should be submitted with the application.

HAZARD IDENTIFICATION AND ASSESSMENT

Step 1

Establish Former Uses of Brownfield Land

- 2.0 Any brownfield land should be regarded as being potentially contaminated as previous activities carried out there may have caused contamination of the ground by toxic or other noxious materials.
- 2.1 In Haringey there are a number of areas particularly in the east of the borough which may be contaminated eg; former gas board land, land associated with engineering, brick and tile manufacture, refuse disposal sites, former utilities and sewage works, oil storage, in-filled pits and industrial land adjacent to the River Lea; these usually require investigation.
- 2.2 Enforcement Services hold some historical data and an “Environmental Information” search may be requested. Property deeds and the Land Registry are also useful for relevant information. Other documents which indicate potential contamination due to past contaminative land uses should be consulted. Any such information should be copied and included with a planning application.

3.0 Step 2

Identifying Contaminants of Concern

- 3.1 This involves compiling a site-specific list of all contaminants of concern by;
- each known current or former industrial use of the land;
 - the key contaminants corresponding to each industrial use (see R&D 66 or Defra publications – references are given at the end);
 - other contaminants known to be associated with the relevant industrial uses, where these are suspected;
 - other contaminants known or suspected to be present from the walkover survey;
 - potentially harmful substances which may occur naturally in the locality;
 - substances or soil characteristics, which may affect the behaviour and therefore the risk estimates for, listed contaminants.

4.0 Step 3

Develop a Conceptual Model

4.1 In this step, information obtained during steps 1 and 2 is used to develop a conceptual model of the site. The conceptual model is based on the potential pollutant linkages identified for the site. It is a representation in summary form of the nature of the contamination problem for which a solution is being sought. It can be expressed in a tabular, matrix or pictorial format.

Components of the Conceptual Model

4.2 The conceptual model should identify:

- each of the receptors (for example occupants of the development, neighbours, controlled waters), breaking these down into separate categories where appropriate (for example separate identification of adults and children, groundwater and surface water);
- the pathways by which they could be exposed (for example inhalation or ingestion of contaminated soils or dust, consumption of home-grown vegetables affected by contamination, leaching of contaminants into groundwater);
- the contaminants associated with former uses of the site or thought likely to be present;
- a preliminary assessment of the likelihood of a pollutant linkage for each combination of contaminant, pathway and receptor.

4.3 The conceptual model summarises the nature of the problem for which a solution is being sought. The conceptual model determines the way in which subsequent stages are followed, and ensures that each relevant pollutant linkage is investigated fully.

5.0 Step 4

Undertake Hazard Assessment

5.1 The main objective of this step is to evaluate the initial conceptual model developed in Step 3. This is done in order to:

- establish the likelihood of each of the potential pollution linkages;
- address the nature, likely location and behaviour of contaminants;
- identify potential for chronic and short-term health risks.

5.2 The first task in this step is to critically evaluate all data collected so far and assess any further data collection needs. In order to obtain additional information it may be necessary, for example, to undertake some exploratory investigations prior to the more comprehensive ground investigations undertaken as part of the risk estimation in phase 2.

Exploratory Investigations

- 5.3 Such investigations are not required at this stage unless the applicant or the Council consider that it is necessary to confirm the existence of hazards suspected from the earlier desk study and site walkover. The investigation should give an indication of the likely quantities of contaminants present and their probable locations.

Phase 2

This phase will only be undertaken where it is necessary to address land contamination as part of the development project; these subsequent steps will require expert assistance and would normally take place as the development proceeds.

RISK ESTIMATION AND EVALUATION

6.0 Step 5

Design and Implement Ground Investigation

- 6.1 The purpose of detailed investigations is to produce sufficient information about the locations, concentrations and behaviour of contaminants to undertake risk estimation and evaluation.
- 6.2 Developers may wish to take specialist advice on the design and implementation of investigations. When planning an investigation, in nearly all cases it will be necessary to commission analytical services from a suitably qualified and experienced laboratory. In many cases, the ground investigation itself will be undertaken by a specialist contractor, whose services can be procured directly or indirectly through a consultant. Guidance on the selection of service providers is given in Defra document CLR 12.
- 6.3 Typically, detailed investigations would produce the following information:
- the locations of contaminated zones within the site;
 - types and concentrations of contaminants in soil and groundwater;
 - concentrations and flows of gases such as carbon dioxide and methane
 - other physical and chemical characteristics of soil and groundwater that can influence the behaviour of the contaminants, such as pH, organic matter, soil porosity and water levels.
- 6.4 It can often be cost-effective to combine geotechnical and contamination investigations, but in so doing the needs and objectives of both must be taken into account. Historically, the objectives of a contamination assessment have often been subordinated to those of the geotechnical investigation and the data obtained on contamination have therefore been of very limited value. One example of the way in which this can happen is when sampling soils from boreholes. A geotechnical engineer may be interested in taking a sample of clay at a depth of, say, five metres in order to establish its load-bearing

capacity for piles. However, clay is a very effective barrier against the movement of many contaminants and is therefore unlikely to be contaminated. Testing of the clay for contamination is unlikely to produce much useful information. On many industrial sites contamination is found near the surface, sometimes in made ground. Testing of such material could produce a wealth of information about contamination but very little about the loading bearing capacity of the site for piles.

6.5 The ground investigation should be designed to provide sufficient information about levels of contaminants to give confidence that the data is representative of the real conditions. The more samples that are taken, the less chance there is that very high concentrations of contaminants or very large areas of contaminated soil would go unnoticed.

6.6 Ground investigations for the purposes of assessing contamination will normally be undertaken using a staged approach. The exploratory investigation described in Step 4 may be adequate as the first stage of a more detailed approach, if designed with that in mind.

Investigation Techniques

6.7 Various techniques which may be used are described in the British Standard Code of Practice; BS10175 (2001), Investigation of Potentially Contaminated Sites.

6.8 There are two main types of investigation technique; non-intrusive investigations, such as geophysical investigations, and intrusive investigations, which involve trial pits, boreholes or probeholes.

6.9 Non-intrusive techniques include the following:

- conductivity and resistivity surveys, which can locate disturbed ground and buried objectives and identify variations in groundwater quality;
- magnetic and electromagnetic surveys, which work in a similar way to metal detectors;
- ground penetrating radar, which can identify buried tanks, pipes and voids as well as hydrocarbons; seismic techniques, which can identify boundaries between different layers of soil and measure the depth of groundwater'
- surface emissions monitoring using portable gas detection equipment; and
- infra-red thermography, which can detect sources of heat (for example active landfills), and infra-red photography, which can detect stressed vegetation from aerial photographs.

6.10 Non-intrusive techniques can be usefully deployed in the first stage of a phased investigation because they can highlight areas for more detailed sampling in the subsequent phase.

6.11 Intrusive techniques include the following:

- probing, which typically involves a stainless steel probe with a pointed end which can be pushed or driven just below the surface and can be used to sample for gases or volatile substances in the ground;
- trial pits, excavated using a mechanical digger with a backactor, typically to a depth of about 4m;
- boreholes, which may be constructed to much greater depths than trial pits.

- 6.12 Probing does not allow sampling at significant depth and is therefore often used only for screening. Trial pits are very commonly used because they allow sampling from a range of depths, typically at 0.5m or 1.0m vertical intervals starting at the surface. In the case of housing developments where potential contamination of gardens is an issue, additional samples may be taken from the near surface layers (for example at 0.1m). Trial pits have the advantage that the layers from which the samples are being taken are visible to the site operative, who can take additional samples of any visually suspect material.
- 6.13 Analysis of samples should be carried out by a laboratory accredited for the appropriate testing methods. Laboratories with UKAS accreditation meet certain quality assurance and quality control requirements for analytical work. However, the UKAS accreditation is obtained for individual analytical methods, and the applicant should check that the certificates relate to the tests required.

Uncertainty

- 6.14 No amount of sampling can guarantee to detect all contamination present. Developers must therefore be aware that even if they commission the most comprehensive ground investigation there is a risk that during development further contamination may be uncovered. If this happens, the conceptual model will need to be amended. This in turn may indicate the need for further investigation, revised risk estimates and a review of the remediation strategy.

Step 6

7.0 Undertake Risk Estimation

- 7.1 This should include consideration of risks during both the construction phase and post-development. In many cases it may also be necessary to consider risks to the surface water and groundwater environment. Developers would also want to be satisfied that any contaminants in the ground are not likely to damage building materials, services or underground structures. Phytotoxicity (toxicity to plants) is of concern in areas of the development where plants are to be grown, such as gardens and landscaped areas, and some sites may have sensitive ecosystems, such as ponds or woodland, which need to be protected.
- 7.2 Risk estimation can be carried out either by using generic assessment criteria (such as the Guideline Values developed from the CLEA model; (ref.

Environment Agency) for assessing the long-term risks to human health) or relevant environmental standards or by deriving site-specific assessment criteria which are tailored to the particular circumstances of the site. This step then involves estimating and evaluating all risks which could arise from the contaminants identified.

7.3 The details that should be covered in this step are:

- the use of guideline values for human health as criteria for risk estimation;
- where guideline values are not available, the use of generic criteria or calculated site-specific criteria for human health;
- the use of non-human health criteria; and
- the estimation of risk from short-term exposure.

7.4 Where guideline values are not yet available or a contaminant has been identified for which a guideline value is not to be developed, it will be necessary either to use other generic criteria or to estimate site specific assessment criteria, based on toxicity data and calculated exposure. A specialist advisor will almost certainly be needed to undertake the work, which should be based upon comprehensive risk assessment guidance provided in R&D 66 or other relevant publications.

7.5 The Council will need to be satisfied with the site-specific criteria proposed and the approach used in its derivation. The specialist advisor should therefore produce a documented assessment which can be evaluated by the Council, who will be looking for transparency in deriving values, evidence of sound science and clarity.

Step 7

8.0 Undertake Risk Evaluation

8.1 The purpose of risk evaluation is to establish whether there is a need for risk management action. This involves the collation and review of all information relating to the site in order to:

- address areas of uncertainty and their possible effect on risk estimates;
- identify risks that are considered unacceptable;
- set provisional risk management objectives for addressing the unacceptable risks.

8.2 This step should include:

- a commentary on the components of a typical housing development, showing how different components have different sensitivities to contamination and that risks must be considered separately for each;
- Procedures for establishing whether risks are considered unacceptable.

Development of Provisional Risk Management Objectives

- 8.3 When all unacceptable risks have been identified the process of establishing risk management objectives can begin. In general, the risk management objectives will reflect the need to manage the risks associated with each pollutant linkage identified in the conceptual model and subsequently found to be unacceptable.

EVALUATION AND SELECTION OF REMEDIAL MEASURES

9.0 Step 8

Identify and Evaluate Options for Remedial Treatment

- 9.1 The starting point for the development of a remedial strategy is the establishment of risk management objectives. In many cases the results of risk evaluation will already have permitted the development of provisional objectives. This step should cover:
- confirmation of risk management objectives;
 - identification and analysis of remedial options
- 9.2 Guidance on the process of selecting remedial measures is given in R&D 66 and CIRIA reports on remedial treatment for contaminated land and in particular Volume IV; Classification and Selection of Remedial Methods.
- 9.3 The risk estimation and evaluation process will have identified any unacceptable risks from contamination. It is then necessary to decide whether remedial work is required to manage these risks, and, if so, to devise an appropriate remedial strategy.

Risk management objectives

- 9.4 Before agreeing a remedial strategy it is important to establish clearly what needs to be achieved for any remediation. This includes not only the preliminary risk-based objectives but also a wider consideration of the circumstances of the land and its management context. This statement of what needs to be achieved is termed the remedial objective.
- 9.5 Conceptually, risk management action will involve breaking the pollutant linkage by use of one or more of the following methods to satisfy the remedial objectives:
- source control: technical action either to remove or in some way modify the source(s) of the contamination. Examples might include excavation and removal, bioremediation or soil venting;
 - pathway control: technical action to reduce the ability of the contaminant source to pose a threat to receptors by inhibiting or controlling the pathway. Examples would include the use of engineered cover systems

- over contaminants left in situ or the use of membranes to prevent gas ingress into buildings;
 - receptor control: non-technical actions or controls that alter the likelihood of receptors coming into contact with the contaminants, for example altering the site layout.
- 9.6 In determining what needs to be achieved by any remedial strategy you must also consider how it will be accomplished. The statement of any remedial objective should take account of any changes resulting from the selected approach and technique(s), such as:
- how will the remedial objective be measured? For example, for a cover system, the properties of the liner in terms of its thickness and engineered properties are more appropriate than measuring contaminant concentration beneath it.
 - Where is the remedial objective to be measured? This would take into account, for example, the media type, location of samples, and extent of area/volume to be covered.
- 9.7 The remedial objectives must take this into account to an increasing level of detail, as the most appropriate remedial strategy becomes clearer. The remedial objectives should therefore, be kept under review and revised accordingly throughout the evaluation, selection, and implementation process outlined in steps 9 and 10.
- 9.8 When the remedial objectives have been defined it will be necessary to confirm that all the appropriate information is available, particularly in relation to pollutant linkages and the associated risks, to proceed with the selection of remedial measures.

Step 9

10.0 Identification and Analysis of Remedial Options

- 10.1 Having identified the preliminary remedial objectives, the developer should devise a shortlist of potentially suitable remedial options. This may involve applying a single technique or a combination of methods to deal with different contaminants, risks, and site circumstances.

Documentation and Approvals

- 10.2 Documentation to be submitted to the Council at this point should in general include a report of the ground investigation, risk assessment and remedial strategy, consisting of:
- purpose and aims of the report;
 - summary of available site information;
 - ground investigation methodology;
 - works completed;

- results/findings of work relating to geology, hydrogeology and soil contamination;

assessment of hazards:

- estimation and evaluation of risks;
- evaluation of remedial options;
- the preferred remedial strategy.

10.3 Reports should be clear, transparent and based on sound science. A checklist of typical reports produced for a housing development is provided in Appendix 1.

10.4 At this stage it may also be appropriate to seek community acceptance of the proposals, especially where remedial works are likely to be highly visible and result in a certain amount of disruption.

IMPLEMENTATION OF RISK MANAGEMENT OPTIONS

Step 10

11.0 Design and Implement Remedial Works

11.1 By the end of step 9 a remedial strategy will have been determined. In this step, the design and procurement of the remedial works are carried out. Since this step often represents the first stage of development work on site it is important to ensure approval has been obtained from the Council in respect of discharging the planning conditions.

11.2 This step includes details of the following activities:

- development of an implementation plan;
- implementation of remedial works;
- verification of remedial works.

Development of an Implementation Plan

11.3 The principal tasks are to design and specify the remedial works required and to formulate an implementation plan. In developing the implementation of risk management action the key steps are as follows:

- confirm that the objectives remain relevant for detailed design;
- determine what constitutes completion of the remedial treatment (see below)
- identify the detailed design factors and ensure adequate data are available;
- design and specify the remedial treatment
- prepare an implementation plan;

- procure the remedial treatment.

Implementation

- 11.4 A suitably experienced person should supervise the implementation of remedial measures. Clear records of site works should be maintained to allow “as built” records to be produced on completion. The Council and other regulatory authorities should be kept informed of progress and in particular any variations from the proposed remedial strategy. This is best achieved by the preparation of progress reports.
- 11.5 During and after completion of this step it is important to document departures from the original remedial strategy as a result of new findings on contamination of the land. Documentation of work undertaken should be developed from site notes, diaries and progress reporting.

Verification

- 11.5 The completed works should be verified against the original risk management objectives of the remedial strategy. Verification may also be required where there is a requirement for:
- monitoring to meet licence/permit conditions;
 - monitoring of risks caused by activities on-site during the works;
 - ongoing validation testing during the works to provide that the remedial objectives are being met.

STEP 11

12.0 Implement Monitoring and Maintenance Programmes and Project Completion

- 12.1 This step commences at about the time that the development is complete. The purpose of long-term monitoring is to ensure that remedial treatment continues to be effective during the post-completion phase. A long-term maintenance plan may also be developed to ensure that remedial works remain in good repair.

Long Term Monitoring and Maintenance Requirements

- 12.2 If all significant contaminants are removed or destroyed at the end of step 10 and verification shows that the remedial objectives have been met, no further action is needed apart from ensuring that comprehensive, appropriate documentation is prepared and maintained.
- 12.3 If, however, contaminants remain or the end-point of remedial treatment is uncertain, post-treatment management, comprising monitoring and/or maintenance will be required. Sometimes, long term monitoring may be made a condition of a planning permission or waste management licence.

Development of a Monitoring and Maintenance Plan

- 12.4 Where the need for ongoing monitoring and maintenance has not been set out in an implementation plan, a separate plan for undertaking the monitoring and maintenance is required. This should set out the scope and content of monitoring and maintenance, and arrangements for reporting on and responding to the findings of the programme.

Project Completion

- 12.5 Project “completion” needs to be established on a case-by-case basis, and in particular will reflect risk management strategy being implemented and the circumstances in which the work is being carried out.

This SPG has been consulted on as part of the Haringey UDP Revised Deposit Consultation Draft. As such, it is a material consideration in determining planning applications.

APPENDIX 1: Model Document Package (ref. R&D 66 NHBC, EA)

The following sub-sections provide a checklist of the documents and reports likely to be produced at each step in the guidance. Outputs are indicated in bold type.

Phase 1 - Risk Assessment

State risk assessment objectives (**risk assessment objectives**)

Identify hazards (**desk study and site reconnaissance**)

Assess hazards (**site investigation**)

Undertake hazard assessment (**site conceptual model**).

Phase 2 - Risk Management

State the effects of the nature and extent of hazardous conditions (**risk estimation and evaluation**).

State risk management objectives (**risk management objectives**)

Review available data from risk assessment above

Identify potential remedial options

Carry out a detailed analysis of each remedial option.

Select preferred strategy (**risk management strategy**).

Design and procure the remediation process (**remediation method statement**)

Validation

State verification objectives (**verification objectives**)

Record the implementation and verification of the remediation process (**remediation report**).

Record ongoing monitoring and maintenance (**monitoring report**)

APPENDIX 2: Standard Planning Conditions for Land Which May Be Contaminated

Condition: Contaminated Land

No works pursuant to this permission shall commence until there has been submitted to and approved in writing by the Local Planning Authority the following:

(a) Desk top study

In accordance with current guidance; a desk top study documenting all previous and existing land uses of the site and adjacent land, an assessment of the potential contamination and a description of potential risks to local receptors.

(b) Risk estimation and evaluation

Where the desk top study indicates land uses which may have resulted in soil and/or groundwater contamination a site investigation will be required. The site investigation shall be undertaken in accordance with current guidance to determine the nature and extent of contamination and the presence of pollutant pathways to local receptors. The results of the investigation shall be reported in the form of a quantitative risk assessment. The site investigation should take into account historical land use information and include intrusive site investigations as necessary and where appropriate make reference to adjoining land.

(c) Remediation

Where the site investigation reveals that contamination is present and there exists a significant possibility of significant harm being, or likely to be caused to:

- Humans
- Living organisms or ecological systems
- Property (including crops) produce grown domestically or on allotments for consumption, livestock etc. or;
- The pollution of controlled waters,

The applicant shall submit a remediation strategy for approval in writing by the local planning authority. The remediation strategy shall detail how risks identified during the risk estimation and evaluation process will be dealt with in respect of the permitted use of the site, local receptors and other local factors. The strategy shall include where necessary, subsequent management and monitoring activities.

(d) Verification and monitoring

Any approved remediation works shall be fully implemented, completed, and verified by a suitably experienced person before the development hereby approved is occupied. Verification of the completed remediation works shall be by way of a remediation report submitted for approval by the Local Planning Authority. Unless otherwise agreed in writing by the LPA, such verification shall include:

- (i) 'As built' drawings of the implemented works
- (ii) Photographs of remediation works in progress
- (iii) Site progress reports and other site documentation completed during the course of remediation
- (iv) Details of variations in the remediation works due to site conditions etc.

- (iv) Certificates signed by a suitably experienced person verifying that specific remedial measures were undertaken and that imported material is free of contamination
- (v) On-going monitoring records

Thereafter the approved remediation works shall, if required as part of the remediation strategy, be monitored and maintained to the satisfaction of the LPA.

Variations to this condition shall only be permitted with the written approval of the LPA.

Reason: In order for the local planning authority to be satisfied that the proposed development hereby approved is in accordance with the Council's planning policy concerning contaminated land.

Reason for Refusal: Contaminated Land

This application is hereby refused because it has not been demonstrated to the satisfaction of the Local Planning Authority that risks associated with potential contamination on this site have been properly addressed and contrary to Policy RIM 3.4 of the adopted UDP and Policy ENV7 of the Second Deposit Consultation UDP.

Informative

The application cannot be determined until such time as the applicant has carried out a desk top study and if necessary, intrusive site investigations, to assess the potential nature and extent of contamination on the land and the desk top study has been submitted for approval by the Local Planning Authority. The desk top study and any site investigations should be carried out in accordance with current guidance. Where the desk top study indicates potential risks to local receptors from contamination, the applicant shall provide sufficient information to the Local Planning Authority to indicate how risks identified from the desk top study and/ or the site investigation will be addressed having regard to the proposed use(s) of the site and other local factors.

References

DETR Industry Profiles	Detailing potential soil contaminants associated with industrial activities
Guidance for the Safe Development of Housing on Land Affected by Contamination (National House Building Council and Environment Agency) R&D publication 66	Model procedures for developing contaminated land
Defra, CLR 1 A framework for assessing the impact of contaminated land on groundwater and surface water.	Volumes 1 & 2. DoE, 1994.
Defra, CLR 2 Guidance on preliminary site inspection of contaminated land.	Volume 1, DoE1994. Volume 2. DoE, 1994.
Defra, CLR 3 Documentary research on industrial sites.	Report by RPS Group plc. DoE, 1994.
Defra, CLR 4 Sampling strategies for contaminated land.	DoE, 1994.
Defra, CLR 5 Information systems for land contamination.	DoE, 1994.
Defra, CLR 6 Prioritisation & categorisation procedure for sites which may be contaminated.	DoE, 1995.
Defra; CLR 8 Priority Contaminants for the Assessment of Land	Identifies priority contaminants or families of contaminants related to past industrial activities
Defra; CLR 9 Contaminants in Soils	Toxicological data and acceptable intake data for humans
Defra; CLR 10 Contaminated Land Exposure Assessment Model (CLEA)	Software tool for exposure assessment
CLR 12 A quality approach for contaminated land consultancy.	.DoE, 1999
Defra; "Tox" series	Collation of toxicological data and intake values for humans
Defra: Soil Guideline Values (SGV)	Values for soil contaminated with contaminants for which toxicological data has been determined
Communicating Understanding of Contaminated Land Risks (SEPA, SNIFFER, Environment Agency)	Guidance on communicating risk to the public

These documents can be obtained from Defra or the Environment Agency;
www.defra.gov.uk/environment/landliability
www.environment-agency.gov.uk/subjects/landquality

Other documents referred to:

BS 10175: Investigation of potentially contaminated sites, code of practice, 2001	Available from British Standards Institute (tel. 0208 996 9001).
CIRIA Remedial Treatment for Contaminated Lands, Volume IV: Classification and Selection of Remedial methods (SP104)	This volume is one of an extensive series on contaminated land remediation. (Construction Industry Research and Information Association; 0207 549 3300; www.ciria.org/bookshop)