

REVISION OF SAFEGROUNDS GUIDANCE FOR SITE CHARACTERISATION
FIRST CONSULTATION ON SCOPE AND OUTLINE CONTENTS
CONSULTATION DOCUMENT

1. INTRODUCTION

This is the first consultation about the revision of the SAFEGROUNDS guidance on site characterisation. The consultation covers the scope and outline contents proposed for the second version of the document.

The site characterisation guidance requires revision because it predates the primary SAFEGROUNDS Land Management Guidance (LMG) and its supporting documents, and is not entirely consistent with them. It is also nearly seven years since the first version of the document was published, and it is appropriate to take account of developments in this period.

The overall aim of the revision is to recast the guidance as a largely technical supporting document to the revised LMG (LMGv2). The specific aims of the update are to:

- support and be consistent with LMGv2;
- update with new legislation, methodologies, technologies, and techniques;
- fill gaps, incorporate changes requested by stakeholders, and emphasise issues considered important by stakeholders;
- remove duplication of material that is now, or will be in other SAFEGROUNDS documents; and
- move case studies to the web site.

2. BACKGROUND

In the period from autumn 2006 to summer 2008 SAFEGROUNDS will be revising all its existing guidance documents and adding some new ones. The guidance documents currently under review or development include:

- the second version of the primary SAFEGROUNDS Land Management Guidance (*LMGv2*);
- a new *citizens' guide* to the management of contaminated land;
- a new guidance document on *comparisons of options* for the management of contaminated land, to support LMGv2;
- a revised guidance document on *site characterisation*, to support LMGv2;

The development of the first three of these documents began in autumn 2006, and consultations have taken place on their scope, form, function and outline contents. To view the results of these consultations please visit http://www.safegrounds.com/current_consultations.htm.

3. SCOPE

3.1 Focus

The existing site characterisation document includes the following chapters:

1. Introduction
2. Radioactivity in the Environment
3. Health, Safety and Environmental Protection
4. Objectives of the Site Characterisation
5. Planning the Site Investigation
6. Characterisation Methods
7. Waste Management and Transport of Radioactive Materials
8. Data Management
9. Current Capabilities and Lessons for Practice (without case studies).

The existing document provides both specific guidance on site characterisation (e.g. chapters 4, 5 and 6) and associated practical information on topics such as health and safety, waste management and transportation of wastes (e.g. chapters 3 and 7). There is also information in the existing document which is, or will be, covered in other SAFEGROUNDS documents where it sits more appropriately.

It is proposed that the revised site characterisation guidance focus far more on providing specific guidance on the process of site characterisation. Other sections would be reduced by referencing to other guidance and/or SAFEGROUNDS documents where the information is now held. This approach would enable important considerations in site characterisation to be dealt with in depth. It would also be consistent with the scope of other SAFEGROUNDS documents, which do not repeat information available elsewhere. However, it is recognised that the resulting document would represent less of a “one-stop” manual for those involved in site characterisation.

Question 1: The first version of the site characterisation guidance has been one of the most downloaded SAFEGROUNDS documents. What aspects of the guidance have proved most useful?

Question 2: Do you agree with the proposal that the revised document focuses on providing specific guidance on the process of site characterisation, with overlaps with LMGv2 being removed and other guidance documents being signposted for information on associated topics e.g. waste management?

3.2 Consistency with LMGv2 – Reference to Regulator’s Model Procedures for the Management of Land Contamination

As part of the consultation on the outline contents of LMGv2 consultees were asked about how the environmental regulator’s statutory guidance on model procedures for the management of contaminated land (referred to as CLR11) should be treated in the guidance. Different views were voiced. It is therefore proposed that alternative texts be included in the first draft of LMGv2 to reflect these different views:

1. Recommend that one approach should be used when radioactive and non-radioactive contamination is present (the approach recommended in the LMG) and note that if the CLR11 approach is used there be stakeholder involvement throughout.
2. Recommend the use of the CLR11 approach for non-radioactive contamination and point out the similarities between it and the regulatory and SAFEGROUNDS approaches for radioactive contamination.

The decision on which to use will be made following consultation on the 1st draft in autumn 2007. This decision is likely to have some impact on sections of the revised site characterisation guidance and so it may also be necessary to prepare elements of the first draft of this guidance with alternative texts.

4. OUTLINE CONTENTS

This section considers each of the chapters from the existing guidance in turn, summarising the proposed approach to its revision as well as providing a brief section-by-section commentary.

Chapter 1: Introduction

Material addressed by other SAFEGROUNDS documents will be removed, the text updated to ensure consistency with LMGv2 and a general introduction added to cover: (i) the aims of the document, (ii) the audience (iii) the other SAFEGROUNDS documents.

Section No.	Section title	Comment
1.1	Scope of the document	Text on sites covered by the guidance updated for consistency with LMGv2
1.2	The SAFEGROUNDS learning network	To describe the guidance revision process
1.3	Sites addressed by this guidance	Much of the information covered here will now be addressed in LMGv2. Summary information will be included in section 1.2
1.4	Regulatory aspects	Update (e.g. with reference to SAPs, EGG01, EPA 1990 revision/circular01/2006) or Refer readers to the SAFEGROUNDS regulatory framework paper
1.5	List of key available site investigation guidance	update

Question 3: Is it sufficient to reference the SAFEGROUNDS regulatory framework paper or should the revised document include an updated section on the regulatory aspects relevant to site characterisation?

Chapter 2: Radioactivity in the environment

It is proposed that material addressed by other SAFEGROUNDS documents be removed and that the text be updated to ensure consistency with LMGv2. The remaining information is quite general in nature, and likely to be familiar to most of those using the document. It will also be covered to some extent in the Citizens'

Guide. However, it is recognised that the section provides the opportunity to present important contextual information on radioactivity in the environment.

2.1	Radiation and radioactivity	
2.2	Principal radionuclides of relevance to contaminated land	
2.3	Background levels of radioactivity	
2.4	References	

Question 4: Do you think that the revised document should continue to provide basic information on radioactivity in the environment? If yes, which aspects are most important?

Chapter 3: Health, Safety & Environmental Protection

If retained, this section will require considerable review to ensure that it reflects current regulation and practice in relation to health, safety and environmental protection during site characterisation. It is also noted that the general regulatory regime is covered in the SAFEGROUNDS paper on the UK regulatory framework for contaminated land on nuclear-licensed and defence sites.

Whilst the section provides useful practical information, it is noted that:

- guidance is available elsewhere;
- most sites will have site specific procedures that will need to be applied anyway; and
- much of the readership will be familiar with the issues.

Views are therefore invited as to whether the section is retained.

3.1	Introduction	
3.2	Summary of key safety legislation of relevance to contaminated land	
3.3	Radiological safety :IRR 1999	
3.4	Key radiological safety principles	
3.5	Staff and competency training	
3.6	Radiological monitoring	
3.7	Safety management arrangements	
3.8	Personal protective equipment	

3.9	Environmental protection	
3.10	References	

Question 5: Do you think that the document should continue to provide information on health, safety and environmental protection? If yes, which topics would you like to see addressed?

Chapter 4: Objectives of site characterisation

The existing site characterisation guidance contained considerable discussion of the fundamental objectives for site characterisation. This is more appropriately dealt with in relation to the more general process for the management of contaminated land, covered in LMGv2. It is therefore proposed that this section discusses the more specific objectives of site characterisation (in terms of providing information on the nature and context of the contamination itself) to be used in the process of deciding how to manage the land.

4.1	Reasons for site characterisation	<p>The information on the evaluation of liabilities will be expanded upon, particularly with reference to defining volumes and working out remediation strategies for decommissioning.</p> <p>The link will be made to the SAFEGROUNDS options comparison guide i.e. site characterisation will provide key information in terms of the nature, characteristics and environmental context of the contamination.</p>
4.2	End-points	<p>This topic will be addressed primarily in LMGv2. However, it is proposed that the site characterisation guidance include summary information on end state strategies for nuclear sites.</p> <p>Again there is a link to the SAFEGROUNDS options comparison guide, at least where the options under consideration are strategic rather than implementation options.</p>
4.3	Comparison of the management of chemically contaminated and radioactively contaminated land	<p>Much of the information contained in the existing guidance will now be addressed in LMGv2. The focus in the revised document will be on the comparison of characterisation methods.</p>
4.4	References	update

Chapter 5: Planning the Site Investigation

This section will be updated to reflect the latest guidance and experience in relation to planning the site investigation, and to place more emphasis on stakeholder involvement.

5.1	Identification of key roles	Update CDM
5.2	Communication with stakeholders	Update to ensure consistency with the guidance on stakeholder involvement included in LMGv2
5.3	Framework of activities in a site characterisation	Update and consider CLR11 & BS10175 approach
5.4	Key issues for survey design	Update with emphasis on defining liabilities. Use CIRIA guidance particularly on gas surveys – Assessing risks posed by hazardous ground gases to buildings – revised C665
5.5	References	Update

Chapter 6: Characterisation Methods

New guidance and techniques are available, as indicated in the table below. This section would be updated to include relevant information.

6.1	Non-intrusive radiological surveys	Update legislation
6.2	Geophysics	Extend range on non-radioactive non-invasive surveys
6.3	Intrusive investigations	Update references and legislation (particularly soil probing in light of CIRIA guidance - Assessing risks posed by hazardous ground gases to buildings – revised C665)
6.4	Chemical and radiochemical analysis	Update - particularly quality, limits of detection and MCERTS
6.5	References	Update

Question 6: Are there any site characterisation practices and techniques contained in the existing guidance that are now considered redundant and are no longer best practice, or have previously unrecognised limitations?

Question 7: Are there evolving site characterisation practices and techniques that have proved successful, which should be included?

Question 8: Have any changes in policy or regulation affected your approach to site characterisation?

Chapter 7: Waste Management and Transport of Radioactive Materials

Like Chapter 3, this section provides information on a practical issue that may arise during site characterisation, should any material be generated that is classified as radioactive. This is useful information for the practitioner, but is not central to the guidance on site characterisation itself, and the same issues noted for Section 3 apply.

Views are therefore invited as to whether the section is retained.

7.1	Waste management	If retained this would need updating
7.2	Off-site road transport	If retained this would need updating
7.3	References	If retained this would need updating

Question 9: Do you think that the document should continue to provide information on waste management and the transport of radioactive materials? If yes, which aspects are most important?

Chapter 8: Data Management

This section will be revised to be consistent with, and reference to, the SAFEGROUNDS guidance on record keeping, and to ensure that appropriate information gathered during site characterisation is available to the land management process described in LMGv2.

8.1	Reporting	Update as above
8.2	Corporate memory	Update as above
8.3	Evaluation of Data	Expand on data quality objectives
8.4	References	Update

Question 10: What guidance should be given regarding the management of uncertainties and the fact that sites can never completely characterise contamination and need to infer the extent and magnitude from a few measurements?

Chapter 9: Current Capabilities and Lessons for Practice

In the existing document, this section provides a summary of practical experience and lessons learned. It is proposed that case studies will not be included; instead these will be provided via the SAFEGROUNDS website. Appendix 1 is also not regarded as an important part of the document and it is proposed that it be removed.

Given that the rest of the document is based on practice and experience, it is proposed that this section be retained but only as a short summary highlighting key issues.

9.1	Current capabilities	
9.2	Lessons from experience	
9.3	Possible future improvements to site characterisation best practice	
9.4	References	

Question 11: Do you agree that case studies and associated discussion is best provided via the SAFEGROUNDS website?