

Research Project Specification

SAFEGROUNDS good practice guidance for records and record-keeping

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Contents:

- 1 Objective
- 2 Background
- 3 Scope of project
- 4 Production and handover of technical consultant's draft reports
- 5 Management of the research project
- 6 Method
- 7 Outputs from the project
- 8 Programme of work
- 9 Budget
- 10 Appendix

VERSION CONTROL

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1 OBJECTIVE

To produce a good practice guide on records and record-keeping for contaminated land and land quality which addresses the knowledge requirements of nuclear and defence sites and their related stakeholders.

2 INTRODUCTION AND BACKGROUND

2.1 Introduction

Tenders are invited from suitably qualified technical consultants to write the above good practice guide. In carrying out the work the appointed technical consultants will work under contract to CIRIA. CIRIA's standard terms of contract are attached. CIRIA will manage the project. The SAFEGROUNDS steering group will oversee the production of the outputs. For more information about SAFEGROUNDS see: www.safegrounds.com

2.2 Timescales

Deadline for submission of tenders	4:30pm 30 January 2006
Notification of shortlisted candidates	3 February 2006
Selection panel presentations at CIRIA offices	10 February 2006
Commencement of work	13 February 2006
Completion of work	31 August 2006

2.3 Four copies of your completed tenders submission should be returned to:

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2.4 Background to the need

Contaminated land and land quality documentation exists in different media and can be overly complex and voluminous. It is often difficult to store in secure media and it is not always obvious which key documents need to be retained for the long term, and indeed how long the long term needs to be. Furthermore, contaminated land investigations/ remediation can tend to be managed as a series of short-duration phases that may involve 'projects' spread over several years, sometimes with prolonged periods of relative inactivity.

There are consequent problems associated with continuity of oversight and effective hand-over of information from one project manager or sponsor to the next. Change of site use, ownership and the associated transference of liabilities add to the pressure to adopt appropriate record-keeping systems.

SAFEGROUNDS members have indicated the specific problems that can be experienced with regard to records and record-keeping and they are seeking clear information within the guide on how to deal with these in practical ways which are relevant to different types of sites.

As well as a general lack of clarity on the drivers to create records, the following list is representative of the kinds of issues identified:

Inadequate recording of information (including spatial information):

- records with insufficient information (quantitative information and qualitative information relating to such things as decisions and assessments)
- inadequate spatial information so that records associated with a particular area of land may be difficult to locate in the future

Setting up and maintaining the record:

- poorly stored/ filed/ categorised records
- poor tracking of revisions or the reasons for the revisions
- poor identification of such things as who the record “custodian” is
- inadequate protocols for maintenance/ amendments/ destruction/ retention (particularly where records may be needed for purposes other than the original purpose)
- degradation/ corruption/ obsolescence of the record-keeping media (paper or electronic)

Information about the record:

- poor detail about the record (for example, information on the purpose for which the record was originally collected)
- poor cross-referencing to other records making it difficult to track back to the relevant part of a specific reference
- poor prioritisation of the record in terms of its importance within the context of land condition, site restoration and site end points

Clear guidance is needed in these areas as well as on the type of records to be kept, how regularly they should be updated and how long they should be kept after closure or remediation of a site.

Existing SAFEGROUNDS information on record-keeping is somewhat basic and limited in extent (see: http://www.safegrounds.com/other_guidance.htm). This leaves a significant gap in an important area where SAFEGROUNDS might be expected to provide a lead for its stakeholder community. The fact that site de-licencing, end-point consultation and decommissioning activities are all now progressing means that guidance needs to be available in the short term.

Records inform many important decisions on future land use with respect to the impact of contaminated land on people and the environment. All of the member organisations of the SAFEGROUNDS steering group, as well as other stakeholders, have a stake in effective record-keeping systems being used and accurate and appropriate records being kept. For example:

Site owners (NDA, MOD and others) have ultimate responsibility for liabilities. They require ready access to accurate records on land conditions to inform strategies for land management. Records will generally be required well into the future.

Contractors and agents for the site owners (Tier 1 contractors, DE etc) rely on good site knowledge to be able to provide an effective service for their client organisations. They also need to be able to maintain and update records to provide to the site owners an on-going picture of site liabilities and to hand over

records if there is a change in ownership of the site. They need to inform an understanding of how liabilities are likely to change over time. They may also be required to hand over information to sub-contractors and any successors that are appointed to manage site contamination after their contracts come to an end.

Regulators (HSE, EA and local authorities) need site licence holders to meet certain legal obligations. They need to have confidence that records are accurate and up-to-date and their storage systems are robust. This will enable important decisions to be made quickly on the level of scrutiny and regulatory intervention required on particular sites. Having consistency of approach for different sites, including some standard record formats where appropriate, will make site enquiries easier and less time-consuming for the regulators.

Local authorities will have certain information requirements relating to the planning regime, existing Part IIA regulations and the extension of those to cover radioactively contaminated land.

NGOs and community based organisations need to be confident that the records being used by site owners, contractors and agents and regulators are accurate and up-to-date and that record-keeping systems are robust and access to them is not unduly restricted. They are concerned with community impacts but may not have the knowledge required to interpret very technical information. For them some records will need to be in non-technical language.

Policy makers (for example DEFRA and DTI) need accurate information and data in order to develop effective policy.

Consultants and property lawyers (due diligence) will also have a stake in the project and its outputs. Interest extends to land adjacent to sites.

Former site owners who may retain some contingent liability for contamination hazards on land that has been sold off or transferred to another public body in the past.

3 SCOPE OF PROJECT

3.1 Definitions of terms

For the purposes of this project, a *record* is a piece of information which supports the management of contaminated land on nuclear and defence sites. A record can take many forms: written, computer, electronic, photographic, physical model, video, drawing, map. *Record-keeping* is the system used for creating, storing and otherwise managing all aspects of the record including the ability to access the record now and in the future.

3.2 Main output

The main output will be a 25 – 30 page guide. The technical consultant will be required to produce this, through various drafting stages. This will have the following features:

- provides comprehensive guidance on both records and record-keeping systems, including a set of fundamental principles of good practice
- is clear, logically set out, well-written and well-referenced
- incorporates easy to follow flow diagrams where appropriate
- contains simple tools such as checklists
- includes illustrative spatial information using maps or diagrams and also perhaps some choice site photographs for visual interest
- is written in a style that is reasonably accessible to the non-technical reader
- incorporate a clear four page synopsis which is suitable for reproduction as a standalone document

In producing the guidance document, buy-in should be sought from all key players. There should be transparent use of the SAFEGROUNDS document consultation process that is shown in the appendix. Furthermore, the completed document should contain a short description of this process and indicate the level of “sign-off” that has been achieved amongst steering group members. The target will be to achieve full endorsement of the group in order to enable the document to receive the SAFEGROUNDS icon.

3.3 Scale of the project

The project is expected to require approximately 50 days of effort from the technical consultant, with time spread across appropriate skills, levels of seniority and day rates to maximise value for money. In addition the project will require approximately 35 days of management time which will be supplied by CIRIA. Areas of responsibility between CIRIA and the technical consultant are indicated in sections 6 and 7. In helping to shape the guide, there are likely to be significant contributions-in-kind provided by SAFEGROUNDS steering group members and other consultees.

3.4 Indicative content of the guide

Once produced, the guide will be practically applicable to immediate, medium-term and inter-generational land management and decommissioning programmes (and their related stakeholders). Future reporting, data transfer and file format requirements and practices should be anticipated and taken account of.

The guide should demonstrate the importance of record-keeping to stewardship throughout all of the stages of land management. It should therefore cover the start of the land management process, including site investigations and characterisation, and address all stages up to and after land has been released from control

The following is a list of the range of issues to be dealt with in the guide. This list is a product of a brief exploration with SAFEGROUNDS members and is therefore not intended to be exhaustive nor dictate too firmly the structure of the guidance document. Tenderers are invited to draw on their own knowledge to demonstrate how they would approach the topic.

Introductory sections

- Brief outline of the SAFEGROUNDS context and reference to the consultation process
- Clear indication of the purpose of the guide
- Definitions of: record, record-keeping, information management (use simple box)
- Reader interest - why the guide is relevant to each stakeholder (use simple box: stakeholder - interest - responsibility)
- Synopsis of the guidance

Pressures, drivers and specific requirements for good record-keeping

- General need and pressures/ drivers for record-keeping as a whole:
 - national and international
 - land registry systems
 - standards - BSS, ISO etc
 - IAEA
 - long term stewardship
 - growing need for transparency and accessibility
- Specific obligations, needs and tasks:
 - HSE/ EA site licence conditions and other existing mandatory requirements for record-keeping
 - ensuring data quality assurance, integrity, adequacy, completeness
 - storage, preservation, management, retention requirements
 - how record-keeping obligations extend to materials leaving site
 - land registry/ planning needs
 - MOD and NDA (national archive) requirements
 - legal requirements to keep records in particular forms
 - relevant initiatives in the harmonisation and accessibility of data transfer (systems should have the potential to align with any significant future mandatory requirements)
 - need to make information readily accessible so it is retrievable for stakeholders
- Formats:
 - storage media
 - safety/ readability
 - future proof
 - project/ multiple storage
 - legal requirements
- Accessibility:
 - custodianship
 - durability
 - degree of centralisation of the system
 - metadata
 - spatial references
 - searchability
 - indexing
 - contextualisation
 - categorisation

Description of record-keeping systems

- New systems and improving/ incorporating existing systems
- Different systems for different sites

- Handling site-wide and project specific levels
- Types of records required: factual, interpretive, decisions
- What records should be kept and over what timescales? (H&S, environment, community issues, litigation and evidence requirements etc)
- Cross referencing to project stages, SAFEGROUNDS and decommissioning
- How records and records management feature in restoration and the post restoration stages of the life cycle of a site (this should be illustrated with flow diagrams and should consider:
 - for licensed sites - where restoration is to an interim end-point, or a de-licensable end-point; and
 - for defense sites or non-licensed nuclear sites - where restoration is to a point where land can be reused by the current owner, or divested for other use
- Personnel issues
 - who should have responsibility for creating, managing and retrieving records?
 - what instructions need to be provided on using records?
 - how can internal 'buy-in' to good practice be achieved?

Good practice guidance

- Good practice principles
- Specific good practices approaches
- Checklists and recommendations
- Review of land registry systems in the UK, Europe and the USA
- Issues in relation to change of site use, ownership and the associated transference of liabilities
- Application/ integration of existing record formats such as the Land Condition Record, Land Quality Assessment, EA B20 Report Format and associated guidance for voluntary inspections under Part IIA
- Insights from examples of existing good and bad practice
- The use of different media for record keeping such as written, computer, electronic, photographic, physical model, video, drawing, map
- Use of information about the record (metadata)
- How records should be stored, protected (commercial and confidentiality issues), categorised, filed, maintained (to avoid degradation) and referenced
- Systems for tracking revisions to records
- Other devices such as standard templates for record-keeping
- Creation of flow diagrams/decision trees to sign post the reader to the relevant advice
- Conclusions

The SAFEGROUNDS steering group will need to be involved in discussion to determine the extent of record-keeping being advocated (do records need to be kept for everything or is some prioritisation based on cost/ benefits appropriate?).

3.5 Examples of record-keeping areas that are likely to be relevant to the study

- Site and building history
- Environmental records
- Geological and hydrogeological contexts
- Results of site investigations such as sources, types, amounts and concentrations of contaminants
- Land quality information from areas not suspected as being contaminated

- Remediation records including records of decisions such as why a particular option was chosen, which stakeholders and what regulatory interactions were involved in decisions
- Safety cases
- Post-remediation verification surveys of land condition
- Monitoring records such as groundwater, including long term monitoring
- Maintenance records associated with remediation schemes such as use of physical barriers and caps etc

3.6 Existing initiatives to be aware of or take account of

- Guidance should be provided on the relevant scope and aims of the NDA's national nuclear archive and the requirements it will place on NDA licensees
- Emerging experience in public recording of land condition and remediation in the context of EPA90 Part IIA and the Planning regime
- National initiatives eg the SILC scheme on Land Condition Records (through IEMA),
- Other national requirements eg formal and informal guidance from the EA on Land Quality Assessment Reports and Land Quality Statements, Remediation Validation Reports, IPPC Baseline and Validation/ Cessation Reports
- Guidance given by the HSE Nuclear Safety Directorate to its inspectors (see HSE Nuclear Safety Directorate Guidance for Inspectors on the Management of Radioactive Materials and Radioactive Waste on Nuclear Licensed Sites, Appendix 7: Records for Radioactive Waste Management and Decommissioning, 13 March 2001)
- IAEA and other international guidance (eg US Long Term Stewardship programme) including decommissioning records
- European cadastre system and other land register systems, particularly for brownfield development of chemically contaminated land
- E-Government Initiative
- Any relevant BS or ISO standards that may apply
- FoI legislation and Electronic access requirements from Government
- Eurocodes, high level European initiatives on harmonisation of data management and transfer, existing and emerging guidance on metadata, AGS formats and XML formats
- Existing systems for geotechnical and contaminated land information management

4 PRODUCTION OF REPORTS

Technical consultants are required to indicate their capability in producing high quality draft reports in appropriate formats, and in a prompt manner, whilst working within the demands of the stakeholder consultation process shown in the appendix. Examples of previous SAFEGROUNDS guidance documents can be seen by looking at documents carrying the SAFEGROUNDS icon (follow this link: http://www.safegrounds.com/other_guidance.htm).

5 MANAGEMENT OF THE RESEARCH PROJECT

- the project will be managed by an appointed CIRIA Project Manager
- CIRIA shall use the SAFEGROUNDS Project Steering Group who will oversee the project and sign-off drafts (see www.safegrounds.com for details of the composition of the group)

- steering group and other meetings will be arranged by CIRIA and will be held as noted in the programme (below) - the technical consultant should be available to attend these meetings as required
- the technical consultant will be required to prepare all their drafts and other reports in a timely manner so that consultation and meeting schedules can be met
- the technical consultant will be required to prepare regular progress reports (timing to be agreed with CIRIA) and prepare detailed work programmes for each period of the project
- the Project Manager shall be the principal contact between the technical consultant and the steering group
- CIRIA will have the option to organise for the final draft report to be edited and the technical consultant will be responsible for incorporating any comments noted by the editor and CIRIA senior staff.

6 METHOD

The suggested method below shows how the deliverables could be prepared with reference to the role of the SAFEGROUNDS steering group and the document consultation process included in the appendices. From the technical consultant's perspective the main research method will be literature review supported by discussions with SAFEGROUNDS stakeholders, either through steering group or other project meetings or workshops. The literature review should include existing relevant initiatives (examples are provided above) and, where it can be obtained quickly, some overseas experience. The review will not necessarily be limited to contaminated land. If practical experience can be distilled from other industries, this should be taken into consideration.

main tasks		responsibility	consultees	methodology and sub-tasks
<i>Preparatory work</i>				
draft project specification		CIRIA	working group	<ul style="list-style-type: none"> plan first working group meeting create website submission form to obtain initial steering group input and collate responses prepare agenda and papers (draft specification) and hold meeting
obtain expressions of interest from technical consultants		CIRIA	-	<ul style="list-style-type: none"> publicise the project and obtain expressions of interest from prospective technical consultants
finalise project specification		CIRIA	steering group	<ul style="list-style-type: none"> finalise the specification to take account of first working group meeting and any steering group comments
select technical consultants		CIRIA	selection panel drawn from steering group members	<ul style="list-style-type: none"> issue invitation to tender against the specification short-list prospective candidates set up selection panel meeting select technical consultant
<i>Report drafts</i>				
1	outline structure and contents page	technical consultant	steering group	<ul style="list-style-type: none"> each drafting stage will involve a common pattern in line with the SAFEGROUNDS document consultation process: <ul style="list-style-type: none"> technical consultants will develop the drafts progressively, passing to CIRIA when ready CIRIA will circulate to various sets of stakeholders and comments will be returned to CIRIA CIRIA will collate and log all comments and forward to consultant who will incorporate them, briefly noting reasoning all comments will be placed on the members' section of the
2	first full draft	technical consultant	steering group + wider consultation (possible workshop)	
3	advanced full draft + synopsis (synopsis also suitable as standalone)	technical consultant	steering group + wider consultation + technical working group (if required)	

4	final draft for steering group circulation (25 – 30 pages excl. appendices)	technical consultant	steering group	<p>SAFEGROUNDS website</p> <ul style="list-style-type: none"> the final draft will undergo a ‘sign-off’ process
5	edited publication for website	CIRIA (technical consultant supports final amends such as references if required)	-	<ul style="list-style-type: none"> there is the option for the final draft guide to be passed to the CIRIA publication department for a final professional edit prior to publication consultants would need to address any editorial issues that arise at this stage
<i>Dissemination</i> <i>(not costed but may be considered for future funding if deemed necessary - would cost approx. £5k)</i>				
	press release	CIRIA	-	<ul style="list-style-type: none"> there will be some on-going activities to raise awareness of the project and the guide
	article	CIRIA	-	
	website publicity	CIRIA	-	
	seminar (including Powerpoint slides)	CIRIA + technical consultant	-	<ul style="list-style-type: none"> this is optional, if it goes ahead the consultant will be required to prepare a brief presentation and participate

7 OUTPUTS FROM THE PROJECT

output	responsibility	consultees	use CIRIA style guide	
<i>Preliminary work</i>				
draft project specification	CIRIA	working group	yes	
finalised project specification	CIRIA	steering group	yes	
Note to steering group on selection decision	CIRIA	-	-	
<i>Report drafts</i>				
1	outline structure and contents page	technical consultant	steering group	yes
2	first full draft	technical consultant	steering group + wider consultation (possible workshop)	yes
3	advanced full draft + synopsis (synopsis also suitable as standalone)	technical consultant	steering group + wider consultation + technical working group (if required)	yes
4	final draft for steering group circulation (25 – 30 pages excl. appendices)	technical consultant	steering group	yes
5	edited publication for website	CIRIA (technical consultant supports final amends such as references if required)	-	yes
<i>Dissemination</i>				
press release	CIRIA	-	-	
article	CIRIA	-	-	
website publicity	CIRIA	-	-	
seminar (including Powerpoint slides)	CIRIA + technical consultant	-	-	

APPENDIX

Framework for SAFEGROUNDS Document Consultation Process

