

## Research Project Specification

### *SAFEGROUNDS good practice guidance for record-keeping*

**Document No: SPEC PROP2333**

**30 November 2005**

**Revision:** -

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*Red = Magnox Electric*

*Blue = UKAEA*

*Green = Defence Estates*

*Purple = Gloucester City Council*

*Black = Jeff Kersey*

*Yellow = Jeff Kersey notes*

#### **VERSION CONTROL**

DOCUMENT TITLE:	<b>Record keeping specification (draft 1)</b>
VERSION AND DATE:	<b>Draft 1, 30 November 2005</b>
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PREPARED FOR:	<b>SAFEGROUNDS Project Steering Group</b>
HISTORY:	<b>First draft, based on responses to online form</b>

## 1 OBJECTIVE

To produce a guide to inform contaminated land managers of good practice in record-keeping. This should provide practical support for the short-term, whilst anticipating future developments in the harmonisation of systems. A consistent approach is required across the variety of nuclear and defence sites and be appropriate to the circumstances of multi-decade land management and decommissioning programmes.

## 2 BACKGROUND

Contaminated land documentation exists in different media and tends to be complex and voluminous. It is difficult to store in secure media and it is not always obvious which key documents need to be retained for the long term. Furthermore, contaminated land investigations can tend to be managed as a series of short-duration 'projects' spread over several years. There are subsequent problems associated with continuity of oversight and effective hand-overs of information from one project manager or sponsor to the next. These problems exist in other fields of nuclear decommissioning. Change of site use, ownership and the associated transference of liabilities add to the pressure for appropriate record-keeping systems.

SAFEGROUNDS members have indicated the specific problems that can be experienced with regard to contaminated land record-keeping and they are seeking clear information within the guide on how to deal with these in practical ways which are consistent across different types of sites. The general problem is one of inadequate records which contain insufficient information. This can apply to records of both quantitative information and qualitative information relating to such things as decisions and assessments.

Poorly stored, poorly categorised and poorly filed records make them difficult to access. Lack of metadata (ie lack of summary information indicating what the record contains) can hamper navigation and effective use of records. Inadequate maintenance of records can lead to them becoming unreadable over time through, for example, degradation of the record-keeping media (including electronic systems and paper and ink) or through obsolescence of the media.

There can also be poor tracking of revisions. Further problems relate to poor contextualisation (ie not being able [to use] a record for purposes other than for those for which it was created [UKAEA to check]) and also to centralisation of site records in a national archive [UKAEA to clarify]. Experience also shows that problems arise when references to specific parts of a record do not point to the particular part being referred to. This makes it difficult to audit or to follow how particular assertions are made [UKAEA to clarify].

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. 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.

All of the member organisations of the SAFEGROUNDS steering group have a stake in accurate records and effective record-keeping systems. Site owners (NDA and MOD) 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. They need to inform an understanding of how these are likely to change over time. They are also likely to be required to handover information to sub-contractors and any successors that are appointed to manage site contamination after their contracts come to an end.

The regulators (HSE, EA and local authorities) 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.

Other stakeholders (NGOs and community based organisations) need to trust 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. They are concerned with community impacts but will rarely have the knowledge required to interpret very technical information. For them therefore some records will need to be in non-technical language.

Other owners of land, consultants and property lawyers (due diligence) will also have a stake in the project and its outputs.

Policy makers ....?

Others .....?

### 3 SCOPE OF PROJECT

#### 3.1 Definitions of terms

For the purposes of this project, a *record* is a piece of historical information which supports the management of contaminated land on nuclear and defence sites. The record may be categorised as written, computer, electronic, photographic, model, video, drawing or map. Record-keeping is the system used for creating, storing and otherwise managing records.

#### 3.2 Nature of the guide

The aim is to produce a 25 – 30 page well referenced document that provides comprehensive guidance and contains easy to follow diagrams and simple tools such as checklists. Some choice site photographs could also be incorporated into the document to provide some visual interest. The document should be clear, logically set out and well-written. It should contain a small number of effective examples drawn from industry experience.

It should be written in a style that is reasonably accessible to the non-technical reader and it should incorporate a clear four page synopsis which is suitable for reproduction as a standalone document.

In producing the guidance document 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 aim will be to achieve full endorsement of the group in order to enable the document to receive the SAFEGROUNDS icon.

general good practice review v highly standardised formats and electronic data systems

### 3.4 Scale of the project

The project is expected to require approximately 60 days of effort split roughly into CIRIA and technical consultancy time, spread across appropriate skills, levels of seniority and day rates to maximise value for money for the project.

### 3.5 The guidance should clearly address the following questions

#### *Terms of reference*

- what is meant by ‘record-keeping’ for contaminated land and its remediation?
- what are the distinctions between ‘record-keeping’ and ‘information management’?

#### *Context of why good systems are required*

- what are the existing mandatory arrangements for record-keeping and how do these inter-relate?
- what are the implications of a national archive?
- what pressures are likely to come from the EC and UK Government (eg Eurocodes on data management)
- what other drivers and benefits are there for keeping records?
- what records should be kept and over what timescales? (H&S, environment, community issues, litigation and evidence requirements etc?)
- what issues should the guidance refer to in relation to change of site use, ownership and the associated transference of liabilities?

#### *Principles of good practice*

- what insights are there from examples of existing good and bad practice?
- what general lessons can be learned from current good practice and what principles could usefully be adopted?
- what good practice record-keeping methods and systems should be implemented?

#### *Cross referencing to project stages, SAFEGROUNDS and decommissioning*

- what stages of contaminated land management should the guidance refer to?

- how does guidance on record-keeping cross reference to existing SAFEGROUNDS guidance?
- how does the guidance cross reference to decommissioning stages (including post-closure and de-licensing) and NDA reporting stages (LCBL and NTWPs)?

#### *Form of the guidance*

- what key headings could be used to set out the guidance information?
- what types of checklist questions should be considered as aides memoir to assist the practitioner?
- what other devices such as standard templates for record-keeping are appropriate to be used?

#### *Content of the guidance*

- how does the guidance relate to different media such as written, computer, electronic, photographic, model, video, drawing, map?
- what metadata should the guidance put forward as being useful?
- how should records be stored, protected (commercial and confidentiality issues), categorised, filed, maintained (to avoid degradation) and referenced?
- what system should be used for tracking revisions to records?

#### *Personnel issues*

- who should have responsibility for creating and managing records?
- what instructions need to be provided on using records?
- how can internal 'buy-in' to good practice be achieved?

### **3.6 Examples of record-keeping areas that are likely to be relevant to the study (list not exhaustive)**

- site and building history
- 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

### **3.7 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 – what is its scope?

- Emerging experience in public recording of land condition and remediation in the context of EPA90 Part IIA and the Planning regime
- Experience of how contaminated land records are being managed under Nuclear Site Licence Conditions
- IAEA Guidance on records, including decommissioning records
- US Long Term Stewardship programme which includes information on records in the UK the SILC scheme on Land Condition Records (through IEMA)
- European cadastre system and other land register systems, particularly for brownfield development of chemically contaminated land
- Standardised documents such as the Land Condition Record already exist and their role needs to be considered together with documents such as Land Quality Assessment Reports and Land Quality Statements for which no standard format has been agreed though the EA does produce internal guidance of report formats for the assessment of potentially contaminated land under Part IIA.
- 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)
- Although CLR11 includes a procedural guide to Completion/Validation reporting - I think some specific guidance would be welcome
- E-Government Initiative
- it's worth noting that regulators are now subject to increasing FoI legislation and Electronic access requirements from Government - most LAs, for example, are required to have online access for a variety of searches in the near future
- 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 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 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"> <li>plan first working group meeting</li> <li>create website submission form to obtain initial steering group input and collate responses</li> <li>prepare agenda and papers (draft specification) and hold meeting</li> </ul>
obtain expressions of interest from technical consultants	CIRIA	-	<ul style="list-style-type: none"> <li>publicise the project and obtain expressions of interest from prospective technical consultants</li> </ul>
finalise project specification	CIRIA	steering group	<ul style="list-style-type: none"> <li>finalise the specification to take account of first working group meeting and any steering group comments</li> </ul>
select technical consultants	CIRIA	selection panel drawn from steering group members	<ul style="list-style-type: none"> <li>issue invitation to tender against the specification</li> <li>short-list prospective candidates</li> <li>set up selection panel meeting</li> <li>select technical consultant</li> </ul>
<i>Report drafts</i>			
1 outline structure and contents page	technical consultant	steering group	<ul style="list-style-type: none"> <li>each drafting stage will involve a common pattern in line with the SAFEGROUNDS document consultation process:               <ul style="list-style-type: none"> <li>technical consultants will develop the drafts progressively, passing to CIRIA when ready</li> <li>CIRIA will circulate to various sets of stakeholders and comments will be returned to CIRIA</li> <li>CIRIA will collate and log all comments and forward to consultant who will incorporate them, briefly noting reasoning</li> <li>all comments will be placed on the members' section of the</li> </ul> </li> </ul>
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)	

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

## 5 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	-	-



## 7 BUDGET SUMMARY

Project stage	JRK*	MB	JF	PC	SS	TC1	TC2	T&S	other costs	total
	13 days 740	8 days 540	5 days 390	1 day 540	5 days 660	25 days 700	13 days 550			
1. Preparatory work	4,440	1,080	0	540	0	0	0	600	350	7,010
2. Report drafts	4,440	3,240	1,560	0	0	16,100	6,600	1,000	3,000	35,940
3. CIRIA editing	740	0	390	0	3,300	1,400	550	0	0	6,380
4. Dissemination	0	0	0	0	0	0	0	0	0	0
Total cost (1 – 4)	9,620	4,320	1,950	540	3,300	17,500	7,150	1,600	3,350	49,330

Both take account of possible workshop costs and NGO participation costs

CIRIA staff time 19,730

Technical consultant 24,650

Total expenses 4,950

**Total cost 49,330**

## 8 SUGGESTED REPORT STRUCTURE

A suggested report structure can be included here – if so, probably only a brief outline of a possible report structure to encourage tenderers to consider and propose their own.

## 9 PRODUCTION AND HAND-OVER OF TECHNICAL CONSULTANT'S REPORTS

This section could include guidance on report formats (reference to CIRIA or SAFEGROUNDS examples/ guide/ template) and note on importance of delivery dates for the formal deliverables of the project

## 10 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](http://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 (above) - the technical consultant should be available to attend these meetings as required
- the technical consultant will be required to prepare an agreed number of copies of all their drafts and other reports for circulation to the steering group a minimum of 10 working days in advance of each meeting
- the technical consultant will be required to prepare regular progress reports (e.g. monthly or for each steering group meeting) 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.

## 11 ANY OTHER REQUIREMENTS

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## SAFEGROUNDS document consultation process

