

Preparatory discussion paper 2, for Record Keeping Scoping Workshop 1 - 02 May 2006

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SAFEGROUNDS Good Practice Guidance for Records and Record-Keeping – Scoping Workshop 2 May 2006

We have reviewed the range of issues that was dealt with in the Project Specification, noting that this is the result of initial discussions with SAFEGROUNDS members. Our view is that the list of issues is comprehensive, but that the challenge is to produce guidance that keeps to the member's specific needs and that provides clear practical advice that is accessible to a range of stakeholders, including the non-technical reader.

The purpose of this Workshop is to generate stakeholder involvement in order to refine the technical scope. The intention is to hold a later workshop to obtain information on current record keeping practice in the industry and to engage in the development of guidelines and rules for properly managing records and record-keeping to meet the future contaminated land management requirements of SAFEGROUNDS members.

The methodology proposed for this Workshop is to focus the technical scope of the guidance by identifying the aspects to be considered, answering the key questions and then agreeing the kinds of records that need to be kept.

The aspects can be considered under the following headings:

- The key stakeholders
- The types of site
- The stages in the life cycle of sites
- The contaminated land management process
- The objectives of contaminated land management

Stakeholders

- **Site Owners (NDA, MOD, BE)**
- **Regulators (HSE, EA, SEPA, Local Authorities)**
- **Site Operators**
- **Site Workers / Contractors / Visitors**
- **Site Neighbours**
- **Local Community**
- **General Public**
- **Site Purchasers / Investors / Developers / Advisors**

Site Types

- **Nuclear Licensed**
 - **Research**
 - **Production**
 - **Power Generation**
 - **Defence**
- **Non Nuclear Licensed Defence**

Site Life Cycle

- **Operational**
- **Decommissioning**
- **Care and Maintenance / Interim Use**
- **Final Site Clearance**
- **Redevelopment / Future Land Use**

Contaminated Land Management Process

- **Desk Study**
- **Site Investigation**
- **Assessment**
- **Decision Making**
- **Monitoring**
- **Management**
- **Remediation**
- **Validation**

Contaminated Land Management Objectives

- **Site Worker Safety**
- **Onsite Environmental Protection**
- **Regulatory Compliance**
- **Meeting Tier 1 Contractor/ Site Management Company Performance Requirements/ Standards /Contractual Obligations**
- **Leak / Spill Detection and Remediation**
- **Legacy Contamination Identification and Management**
- **Site Liability Estimation**
- **Cost Minimisation / Value Enhancement**
- **Waste Minimisation**
- **Off Site Contaminant Migration Prevention**
- **Planning, Layout and Design of New Buildings**
- **Setting, Planning and Achieving End Points**

- **Delicensing, Transfer, Sale and Development**
- **Confidence Building**

Key Questions (to bound the scope and provide the key drivers)

- *Does scope cover buildings, structures (above and below ground), waste, radioactive and chemical inventory? (IAEA?) munitions?*
- *Interface with decommissioning?*
- *Interface with safety management?*
- *Interface with environmental management and environmental discharges? (including IPPC Baseline and Validation/ Cessation Reports)*
- *Interface with QA requirements?*
- *What are the Regulatory requirements? (including guidance given by the HSE Nuclear Safety Directorate to its inspectors or formal and informal guidance from the EA or other international guidance eg US Long Term Stewardship programme?)*
- *What are the NDA, MOD and BE performance standards and requirements? (develop in response to / as part of this work?)*
- *What are the scope and aims of the NDA's national nuclear archive and the requirements it will place on NDA licensees?*
- *Confidentiality / secrecy / openness of records? (including public recording of land condition and remediation in the context of EPA90 Part IIA and the Planning regime?)*
- *How far to go down the brownfield development / sale scenario? (including associated National initiatives eg the SiLC scheme on Land Condition Records through IEMA, or SHIRE the proposed National Site History Register through EP or best practice guidance eg formal and informal guidance from the EA on Land Quality Assessment Reports and Land Quality Statements and Remediation Validation Reports ?)*
- *Does scope cover Land registry / Planning needs? (also European cadastre system and other land register systems, particularly for brownfield development of chemically contaminated land)*
- *Existing systems for geotechnical and contaminated land information management?*

Record Types

- **Site and building history**
- **Plans, Drawings and Photographs**
- **Operational environmental monitoring and incident records**
- **Geological and hydrogeological studies, including borehole logs and field / lab testing**
- **Results of contaminated land site investigations including factual reports, field and laboratory results (including methods and QA), assessments and interpretative reports**
- **Land quality information from areas not suspected as being contaminated**

- **Remediation / management 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**
- **Regulatory correspondence and approvals**

Content Options

The above is largely a contaminated land technical consideration that is essential to undertake and worthwhile for those directly involved, but which may have limited appeal to non-technical audiences. The emphasis between **technical content** (i.e. nuclear/ defence-specific) versus **generic guidance** (could be applied to any similar situation) needs to be explored through further discussion. The presentation of the technical considerations needs to be managed so as not to obscure a clear flow process through the Record keeping lifecycle to a wider audience.

An option would be to propose a prescriptive contents list for a contaminated land file to be kept for each site that would indicate the kind of record to be kept in each of its component sections, with associated QA, change control, referencing, reporting, archiving, etc then covered in a generic fashion that can be implemented in a way appropriate to the site concerned.

An issue this will expose is the gaps that are present in the contaminated land management process for a given site. Record keeping can only take place if records have been created in the first place, for example many sites do not have groundwater monitoring programmes. A consequent option could be to prescribe the contaminated land management activities that should be taking place at each type of site.

There are a whole host of issues and initiatives related to brownfield site redevelopment that appear in practice only likely to be of direct relevance to non-nuclear licensed defence sites. To avoid losing focus, we would benefit from help in understanding the relative significance of these brownfield redevelopment issues to the SAFEGROUNDS members so that the correct emphasis can be given. Options that could be considered include removing brownfield site redevelopment and/or non-nuclear licensed defence sites from the scope of work. One of the apparent difficulties with including the later is the wide variety of size and complexity represented by the large number of sites involved.

We propose that the list of indicative content given in the specification will only be touched on at a high level. An appropriate level of detail will be provided for the key drivers, particularly where steering group members indicate

specific interests, but in order to maintain the balance and size of the document there will be a need to not get bogged down. Although our knowledge covers most of the relevant areas, we are not experts in all the topics covered in the specification (eg IAEA, land registry...). We therefore need steering group members to sign-post us to some of the required information and documents to avoid having to “re-invent” things.

Next Steps

- **Identify any emerging constraints of timescale and budget (and potentially expertise)**
- **How to present in guidance (see draft contents attached) and how prescriptive to be**
- **Outline Scope and arrangements for next Workshop to obtain information on current record keeping practice in the industry (including case studies?) and to engage in the development of appropriate generic guidelines and rules for properly managing records and record-keeping.**

Draft Contents

Preface

Summary of the documents creation and development history

Acknowledgements

Executive Summary

One page non-technical overview

1 Introduction and Background

1.1 Introduction

- **Objective of document**
- **SAFEGROUNDS Context**
- **Approach to meeting the objective**
- **Consultation process**
- **Definitions**

1.2 Background to the Need

- **Key Stakeholders**
- **Description of the nature of contaminated land management and the current state of records and record keeping in the industry**
- **Existing guidance and cross reference to other SAFEGROUNDS documents**
- **Importance and benefits of good record keeping**

1.3 Scope

- **Contaminated land desk study, site investigation, risk assessment, monitoring, decision making, remediation, validation**
- **Site data, records, plans, incident reports**
- **Hard copy, electronic, drawings, photos, GIS, samples**
- **Recording of information (including spatial information)**
- **Setting up and maintaining the record**
- **Information about the record**
- **Accessing, archiving, preservation**
- **Quality assurance**
- **Existing record keeping schemes and initiatives**
- **Future reporting, data transfer and file format requirements**

2 Principles of Best Practice

Covering Drivers, Regulatory Requirements, Technical Difficulties & Practical Problems.

- **Why do you need best practices for record keeping?**
 - **Consistency**
 - **Integrity of data**
 - **Examples of Good & Bad Practice**
 - **Types of record**
 - **Formats**

- **Principles of Best Practice**
 - **Business Process Drivers**
 - Business Continuity & Succession Planning**
 - Risk Management**
 - Improved business processes**
- **Regulatory Drivers**
 - **Transparency**
- **Organisational & Evidentiary Drivers**
 - **Chain of Custody**
- **Technological Drivers**
 - **Format & Accessibility**
 - **Anticipating future needs & Integrating new solutions**
 - **Future Proofing & Flexibility**

Following is indicative content given in the specification, which will only be touched on at a high level if the overall balance and size of the document is to be maintained - feedback on this would be welcomed as well as contributions from any SAFEGROUNDS members who have a particular interest / involvement in the issues concerned:

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

3 Record Keeping Systems and Associated protocols

- Existing Systems
 - Strengths
 - Weaknesses
- Recommended Approaches
- Policies and Procedures
 - Records Management Life Cycle
 - Personnel Issues (Responsibilities)

Includes creation, organisation, management (active/inactive) and retrieval and disposition overview

- Indexing & Access
 - Metadata
 - Spatial Information
 - Classification

- Cross-Referencing
 - Record Ownership
 - Transfer of Ownership
 - Revisions & Addition
 - Version Control
- Retention
- Disposition
- Storage Environment (Physical & Electronic)
 - Different Media Types
 - Preservation
 - Security
 - Confidentiality
- Compliance & Accountability
- Records Management Steering Group
- Quality Control
- Reporting

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
 - for licensed sites - where restoration is to an interim end-point, or a de-licensable end-point; and
 - for defence 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?

This will require input from SAFEGROUNDS Members, possibly at a Workshop, aiming to highlight opportunities and pitfalls

4 Good practice guidance

Following is indicative content given in the specification, some of which will only be touched on at a high level (review of land registry systems, site changes, existing Brownfield site record formats) unless feedback

is received from any SAFEGROUNDS members who have a particular interest / involvement in the issues concerned:

- 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?).

5 References

Appendices

1. Checklists

1.1. Simple tools & utilities

1.2. Flow diagrams

1.3. Photographs

2. Existing Industry initiatives

3. Specific problems