NATIONAL QUALITY MARK SCHEME
FOR
LAND CONTAMINATION MANAGEMENT

(OVERVIEW)

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CONTENTS

1. INTRODUCTION TO THE NATIONAL BROWNFIELD FORUM'S NQMS

The National Brownfield Forum (NBF)(formerly Land Forum) provides a central point for governmental liaison across the contaminated land community and includes a representation, either in person, through direct correspondence or through indirect representation, with a range of organisations that are active in the contaminated land community. A list of members is available from the NBF website www.claire.co.uk/brownfieldforum

Past economic activities have left the UK with a substantial legacy of land which is contaminated, for example by past industrial, mining and waste disposal activities. Unless adequately addressed, this contamination can pose unacceptable risks to both people and the environment.

It has been estimated that there may be between 50,000 and 100,000 potentially contaminated sites across the UK affecting over 300,000 hectares of land.

Although standards in the contaminated land sector have improved greatly over the last decade it is acknowledged that the quality of individual reports on previously used land can still be quite variable, especially with respect to smaller projects. Members of the NBF (formerly Land Forum) believe that there is a need to improve the quality and compliance of work carried out by third parties to adequately address the risks posed by land contamination.

The National Quality Mark Scheme for Land Contamination Management is a better regulation initiative brought into existence and supported by the NBF for the benefit of its members and for the wider UK Environment Sector and contaminated land community as a whole.

2. OVERVIEW AND OBJECTIVES OF THE NQMS

The National Quality Mark Scheme for Land Contamination Management (NQMS) is a system designed by the NBF to ensure that land contamination management work meets the necessary technical and regulatory standards. It applies in particular to the presentation of environmental information to the regulator in the form of reports setting out both factual and interpretative information.

Reports[1] are prepared in line with good practice and signed off by a suitably qualified and experienced person registered under the NQMS who ensures that:

- The work has been planned, undertaken and written up by competent people who have relevant experience and/or qualifications in their respective disciplines
- The underlying data has been collected in line with established good practice procedures and its collection has been subject to control via established quality management systems.
- The data has been processed, analysed and interpreted in line with established good practice and any specific advice provided by the relevant regulatory authorities or regulatory bodies
- The reports set out recommendations or conclusions that are substantiated by the underlying data and are based upon reasonable interpretations.
- Any limitations in the data or uncertainties in the analysis are clearly identified along with the possible consequences of such limitations.

The scheme seeks to ensure that all legislative requirements connected to the management of land contamination have been met. Documentation that meets the scheme requirements should ensure that regulatory intervention to protect both the public and the environment under the Planning, Part 2A or Environmental Permitting regimes is highly unlikely.

The scheme is voluntary and the procedure is simple. It has been designed to operate alongside and within existing quality management systems and has the support in principle of both the Ministry of Housing, Communities & Local Government (MHCLG) and the Department for Environment, Food and Rural Affairs (DEFRA).[2]

In providing a "Quality Mark" to reports setting out land contamination management work the aim is to provide assurances to problem holders and regulators alike that such issues have been adequately managed. This should help speed up respective regulatory permissions or decisions on regulatory compliance resulting in savings to both public and private sector participants.

[1] such as risk assessments, site investigations, remediation option appraisals or remediation verification reports
[2] In his address to the EIC Annual Conference on 2/12/14 Lord de Mauley TD, Parliamentary Under Secretary of State for Natural Environment and Science, praised the Quality Mark Initiative aiming to achieve consistency across the sector.

3. APPLICABILITY OF THE NQMS

The scheme covers all reports concerning land contamination management that have been prepared by specialists for the purpose of establishing or managing environmental liabilities. These may typically include:

- Desk studies/Preliminary risk assessments
- Site Investigations, Generic or Detailed quantitative risk assessments
- Remedial options appraisals, remediation strategies
- Remediation verification and monitoring reports
- Or a combination thereof.

So for example, in the context of the Town and Country Planning Regime, it can cover reports submitted in support of a planning application or to assist the discharge of one or more specific planning conditions relating to land contamination management.

The scheme does not currently extend to the submission of information or advice that is not specifically related to land contamination management or to summary reports which may seek to repackage/represent the original quality marked information. Where the specialist report forms a part of an appendix to such a report the NQMS can only be applied to the specialist report itself.

The problems of historical contamination are most commonly dealt with via a combination of actions required by either conditions set under the Town & Country Planning Act (1990) in England or Part 2A of the Environmental Protection Act (1990) – sometimes referred to as the contaminated land regime.

The problems of any "new" contamination that may arise as a result of current activities are most commonly dealt with via the environmental permitting regimes (which aims to prevent pollution in the first place) and associated enforcement powers.

The following sections set out in more detail the role that the NQMS can play in satisfying the land contamination management requirements of the different regulatory regimes.

3.1 Town & Country Planning Regime in England

Land contamination, or the possibility of it, is a material consideration for the purposes of town and country planning. This means that a planning authority has to consider the potential implications of contamination both when developing plans and when it is considering individual applications for planning permission.

The current National Planning Policy Framework (NPPF) in England says that:

- Where a site is affected by contamination or land stability issues, responsibility for securing a safe development rests with the developer and/or landowner

The NPPF also says that planning policies and decisions should ensure that:

- Asite is suitable for its proposed use taking account of ground conditions and any risks arising from land instability and contamination. This includes risks arising from natural hazards or former activities such as mining, and any proposals for mitigation including land remediation (as well as potential impacts on the natural environment arising from that remediation);
- After remediation, as a minimum, land should not be capable of being determined as contaminated land under Part IIA of the Environmental Protection Act 1990; and
- Adequate site investigation information, prepared by a competent person is available to inform these assessments.

In addition to the planning system, the Building Regulations (made under the Building Act 1984) requires measures to be taken to protect new buildings, and their future occupants, from the effects of contamination.

The Planning and Building Control regimes together ensure that land is made suitable for the proposed future use.

The main regulators for the regime are the Local Planning Authorities who are in turn supported by a range of statutory and non-statutory consultees to the planning process (such as the Environment Agency (EA), Natural Resources Wales (NRW), Scottish Environment Protection Agency (SEPA), etc.).

Although the NQMS can be applied to the management of land contamination under a range of different regulatory regimes its primary focus is to improve the quality of work done to manage land contamination under the Town and Country planning system. The scheme has been designed to assist planning authorities in determining planning applications and discharging planning conditions. The aspiration being to speed up the overall planning process and limit the costs incurred by both public and private sector participants.

Within this context the NQMS should provide assurance to Developers (who retain the legal responsibility for adequately dealing with land contamination problems)[3] and to Regulator(s)[4] that the risks arising from land contamination have been adequately assessed and dealt with[5].

3.2 Part IIA Contaminated Land Regime

The main objective underlying the introduction of the Part IIA contaminated land regime was to provide an improved system for the identification and remediation of land where contamination is causing unacceptable risks to human health, property or the environment, assessed in the context of the current use and circumstances of the land. The regime places a responsibility upon the polluter, or if they cannot be found the owner/occupier of the land to address any problems.

The Part IIA regime ensures that land is suitable for its current use.

[3] NPPF Para 179 "*Where a site is affected by contamination or land stability issues, responsibility for securing a safe development rests with the developer and/or landowner*"
[4] (Local Authorities and the Environment Agency/NRW/SEPA)
[5] in line with established good practice (e.g.LC:RM)

The main regulators for the regime are usually the Local Authorities with the support of the Environment Agency/NRW/ SEPA who take over responsibility for Special Sites.

The NQMS can be applied to all land contamination management work done on behalf of those responsible for the contamination problems. It can also be applied to any work done on behalf of the regulatory authorities (e.g. via public sector contracts).

3.3 Environmental Permitting Regime & Associated Enforcement Powers

The main focus of the environmental permitting regimes (which differ depending upon which Country/Region the site is located) is to prevent pollution by controlling emissions from Industrial Manufacturing and Waste Management activities. Under these regimes there is an expectation that soil and groundwater quality will be protected at a site and that any accidental spillages will be cleaned up promptly. If pollution does occur, then the expectation is that the site will be remediated where possible to restore it to its prior condition and that reparations will be made for any damages that have been caused.

The environmental permitting regime is accompanied by a range of associated or complementary powers which give the regulator the ability to enforce remediation if required. An example in England would be the powers to require removal of illegally deposited wastes or to serve anti-pollution works notices to clean up water pollution.

The main regulators for the Environmental Permitting regimes are the “Environmental Regulators” such as the EA,NRW, SEPA and Environment Agency, Northern Ireland (EA NI).

The NQMS can be applied to all land contamination management work that arises as a result of a need to deal with any pollution that may have been caused as a result of a breach of permit conditions. It can also be applied to the gathering, analysis and presentation of soil or groundwater monitoring data which may be required by the permit or as part of the permit application process. A particularly relevant example would be the gathering of soil and groundwater quality data for a baseline site condition report, to satisfy the requirements of the Industrial Emissions Directive.

The scheme does not apply to the management, control or mitigation of emissions that may arise as a result of either the Industrial activity in question or the remediation process, which are controlled via the Environmental Permit itself.

4. THE OPERATION OF THE NQMS

4.1 Definitions of Roles and Responsibilities

The NQMS has defined roles for a number of individuals and organisations as follows:

"Scheme Administrator":

This is the organisation which administers the NQMS on behalf of the NBF.

The administration of the NQMS is currently carried out on behalf of the NBF by CL:AIRE (Contaminated Land Applications in the Real Environment).

The administering body is responsible for maintaining the NQMS website and accompanying online declarations system. It is also responsible for maintaining access to an up to date register of SQPs, an auditing and complaints procedure and holding records of individual declarations for auditing purposes.

"Suitably Qualified Person (SQP)":

This is the person who implements the requirements of the NQMS and applies the "Quality Mark" to the particular report/product in question. Their role is explained further in section 4.3.1 below.

"SQP Provider":

This is the organisation which examines the capabilities of prospective SQPs and compiles a register of their details.

The role of SQP provider under the NQMS is currently carried out on behalf of the NBF by SiLC (The Specialist in Land Condition Register).

The SQP provider will offer relevant induction training to prospective SQPs, carry out the examination and assessment process and maintain an up to date register of SQPs on behalf of the Scheme Administrator. In the case of SiLC as SQP Provider, this is a combined SiLC and SQP examination and assessment process. Being chartered by a relevant professional body is a pre-requisite of both SiLC and SQP.

"NQMS Steering Panel":

This is the group of individuals nominated by the NBF, and drawn from within its membership, who provide advice to the Scheme Administrator and SQP Provider on behalf of the NBF. The panel is responsible for making decisions regarding any prospective changes to the current or future operational arrangements put in place for the NQMS. This includes any prospective changes to the organisations delivering the roles of either Scheme Administrator or SQP Provider which will be kept under review. The NBF retains the right to add/change organisations as Scheme Administrator or SQP Providers if such action would be beneficial to the operation and overall aims of the scheme.

4.2 The NQMS Process

The quality mark scheme influences the way in which data on land contamination management is collected, processed and interpreted. It applies directly to the production of factual and interpretive reports setting out information about how land contamination has been managed.

A report produced under the scheme will be accompanied by a Declaration of Compliance (which must be referenced and included in the report) and will bear the NQMS logo or quality mark so it can be clearly identified.

The bullet points below present an overview of the NQMS process which ultimately results in a report bearing the quality mark.

- **Stage 1 – Preliminary Actions (Registration of Suitably Qualified Persons)**
- **Stage 2 – Verifying the Capabilities of the Project Team**
- **Stage 3 – Assuring the quality of the work as set out in the report**
- **Stage 4 – Issuing the Declaration**
- **Stage 5 – Process Review Arrangements**

Each stage of the process is set out and described in more detail in the following subsections.

4.3 Stage 1: Preliminary Actions (Registration of Suitably Qualified Persons (SQPs))

Both the Planning & Contaminated Land Regimes require information to be prepared by competent people, but in view of the inevitable specialist and technical nature of the documents, there has been a persistent difficulty for non-specialists to recognise what is competent, appropriate and correct, and what is not.

The NQMS relies heavily upon an auditing role performed by a Suitably Experienced and Qualified Person (SQP). It is the ultimate responsibility of the SQP to ensure the “quality” of the end product (i.e. the report). It is the SQP as a named and registered individual who is authorised by the Scheme Administrator to use the Quality Mark.

4.3.1 Responsibilities of the suitably qualified person (SQP)

The specific duties of the SQP are to:

a. Assess the capability of the team responsible for gathering, processing or interpreting the data with reference to The National Brownfield Skills Framework (NBSF). In doing so the SQP may rely upon any relevant capability assessments that may have been performed and verified by recognised institutions or organisations (e.g. SiLC, ROGEP, SoBRA, CL:AIRE).
b. Ensure that key aspects of the relevant reports are either checked/audited by themselves directly OR verify that these key aspects have been signed off by other delegated individuals with a requisite level of capability within the team.

c. Ensure that the regime under which the report has been produced has been considered and the objectives of the report understood.

d. Ensure that any conclusions or recommendations made within the reports are in line with and comply with the requirements of the NQMS regarding accuracy and reasonableness and that any limitations are clearly identified.

e. Sign a declaration form for each report to confirm that the relevant aspects of the scheme have been complied with. The declaration form must be incorporated into the report in question, which may then bear the Quality Mark.

4.3.2 Eligibility criteria for suitably qualified persons

A SQP is an experienced professional in the field of land contamination. The SQP must be capable of assessing whether a document meets the requirements of the scheme. Although the SQP may delegate the peer review process of individual components of the work to other individual specialists, they retain responsibility for ensuring that those individuals are capable to undertake those tasks.

SQPs must be:

- A Chartered person who has been assessed by a professional body/institution and is bound by the professional code of conduct of that professional body/institution
- Of sufficient experience in the sector to have a good overview of what is required to effectively assess a site and remediate it to a suitable condition (and thereby meet the requirements for regulatory signoff)
- Capable of recognising their own limitations and those specialist skills required of others in a multidisciplinary industry
- Aware of the requirements of the regulatory regimes under which the work is being undertaken.
- Bound by their professional bodies to undertake continuing professional development (CPD) and to maintain awareness of changing legislation, guidance and standards.

The competency of the SQP is measured in line with the definitions set out in the NBSF which describes a range of technical capabilities as summarised in Table 1 below:

TABLE 1 – NATIONAL BROWNFIELD SKILLS FRAMEWORK CAPABILITIES

CAPABILITY TYPE	CATEGORY
GENERIC	**Personal Effectiveness**: shows commitment to delivery of the requirements of the role in an organised, effective, proactive and professional manner and to ongoing personal development. **Communication and Interpersonal Effectiveness**: demonstrates effective interpersonal skills. Communicates effectively and professionally through oral and written channels. **Data and Information Management**: is able to use the tools (e.g. software) available to support the collation and presentation of data and information. **Management and Leadership**: provides leadership in a manner that shows their personal commitment and harnesses a team to deliver an optimal result for the organisation. **Finance and Commercialism**: identifies the key commercial drivers for the organisation and delivers on these in a pragmatic and professional manner taking into consideration all pertinent factors, including that of the financial viability and valuation of projects. **Project and Programme Management**: plans, organises and supervises resources to ensure project implementation in a professional, efficient and cost effective manner. **Health and Safety**: ensures that exhibited behaviours reduce the risks to the health and safety of yourself and others.
TECHNICAL	**Environmental Management**: appreciates the impact activities have on the environment and identifies ways to protect the environment sustainably for the future. **Legislation and Regulation**: understands and applies knowledge of all appropriate legislation, associated statutory guidance and processes. **Site Investigation**: preparation, implementation, testing and presentation of information detailing the ground conditions and extent of contamination on a site and the impact that this may have on human health and the environment. **Risk Assessment**: assessment of the probability, or frequency, of occurrence of defined hazards and the magnitude (including seriousness) of the consequences on site users or the wider environment. **Options Appraisal and Design**: understands the methods for remediation of a site, appraisal of options and the design of the solutions. **Remediation**: understands the requirements for effective remediation, on-going monitoring and the verification and validation of the process.

Capability is a combination of theoretical knowledge and practical experience. The NBSF describes 5 different levels of capability for each discipline which are summarised in Table 2 below:

TABLE 2 – NATIONAL BROWNFIELD SKILLS CAPABILITY LEVELS

LEVELS		DESCRIPTION SUMMARY
1	**Aware**	Has a knowledge of key principles. Would rely on procedures, manuals, other team members or manager for instruction and close supervision to deliver on routine tasks. May only need an awareness of this area of capability, or may be gaining experience to operate at a higher level.
2	**Basic**	Has a basic level of knowledge that allows a contribution in this area. Will require some supervision to deliver at a moderate level of capability in routine tasks.
3	**Proficient**	Has a level of knowledge and capability that allows delivery on routine tasks. Without supervision, can deliver day to day tasks within routine situations. For more complicated situations, will research further and then apply learning to less familiar situations.
4	**Accomplished**	Has a thorough and experiential understanding of the area and underlying principles. Can guide and advise others competently. Copes well with both routine situations and with new or complex situations. Can identify peripheral issues and ensure consideration of these.
5	**Expert**	Has extensive knowledge in the subject area. Widely regarded as a leading authority from whom others can learn. Consulted both internally and externally on pertinent matters. Delivers in all aspects of the area and is seen as a subject matter expert. Develops innovative approaches, stretches others' thinking and challenges them to excel by setting exceptional standards.

SQPs need to demonstrate that they are proficient (Level 3 capability) in a wide range of capabilities. In addition they need to demonstrate higher accomplished or expert level capability (Levels 4 & 5) in at least one of the activities directly associated with land contamination management. The key capabilities specific to a SQP are summarised in Table 3 below.

TABLE 3 – KEY CAPABILITIES FOR SUITABLY QUALIFIED PERSONS

Personal Effectiveness • Problem solving & decision making • Professionalism	**Communication and Interpersonal Effectiveness** • Written communications • Technical communications	**Environmental Management**
Data and Information management • Data management and analysis	**Legislation and Regulation** • Legislative knowledge • Regulatory compliance	**Site Investigation** • Design of SI. • Documentary research • Site recon. • Monitoring & sampling • Laboratory testing
Risk assessment • Chemical assessment • Numerical modelling • Toxicology	**Options Appraisal & Design** • Remedial options appraisal • Remediation design	**Remediation** • Process implementation

The SQP is assessed for competence by a process of examination and interview and must receive specific training in the implementation of the NQMS scheme. The assessment of generic technical capabilities takes place as part of the Chartership process administered by relevant professional bodies and institutions. The assessment of technical capabilities most relevant to operation of the NQMS (highlighted in red in Table 3) is carried out as part of a separate SQP registration process.

Although a SQP needs to be proficient in a wide range of capabilities, it is accepted that it is unrealistic to expect the SQP to be accomplished (Level 4) or be an expert (Level 5) in absolutely all aspects of land contamination management. Where the NQMS requires input beyond the SQP's particular expertise, they may take advice from persons with a higher capability level within the project team. However, the SQP retains ultimate responsibility for the quality of any product carrying the Quality Mark.

The examination and registration process for suitably qualified persons for the NQMS will be carried out on behalf of the NBF by SiLC (Specialist in Land Condition) organisation who will be operating in the role of "SQP Provider".

An initial fee will be payable by the applicant to the SQP Provider to cover the costs of examination, assessment and subsequent registration. An annual subscription fee will then apply to cover the costs of

maintaining the SQP register, assisting the scheme administrator in dealing with any issues associated with professional practice and providing continuing professional development services to the SQP community. Further details of the NBSF and the examination and registration process for SQPs under the NQMS can be obtained from the CL:AIRE (NQMS Page) and SiLC websites.

4.4 Stage 2 - Verifying the Competence of those involved in producing the Report

Just as the capability of the SQP is determined with reference to the NBSF, so the SQP will use the framework to assess whether key members of the project team collecting, analysing or reporting data have the requisite level of capability and/or supervision.

They will be greatly assisted in this task via the existence of other supporting assessment and registration initiatives which seek to recognise particular specialist or niche skills. The most obvious example of this is "The Society for Brownfield Risk Assessment (SoBRA) register of risk assessors".

Where members of the project team have been pre-assessed and registered by the above initiatives the SQP can conclude, subject to verification with the respective registers, that the individuals possess the relevant capabilities to the required levels. The same process may be applied if the individuals have achieved more general recognition (e.g. Chartership with respective professional bodies) that is accompanied by an audit trail demonstrating the technical speciality in which the individual was assessed.

In the absence of any specialist registrations, the SQP will apply the guidance set out in the NBSF in order to come to an opinion regarding the capability of the persons in question e.g. cross referencing in-house staff CVs with relevant capability requirements.

It should be noted that it is almost never possible for the SQP to be in a position to verify the capabilities of all staff outside of the project team who may have been involved in earlier phases of the land contamination management process. When dealing with data that has been provided by others the focus of the SQP will be on verifying its quality with reference to existing technical standards and industry led quality assurance schemes (e.g. ISO 9001, MCERTS etc.). Where there is a question mark around quality, the SQP will factor that into the process via consideration of uncertainties when drawing and reporting any conclusions.

4.5 Stage 3 – Assuring the Quality of the Work as set out in the Report

The aim of the NQMS is to ensure that the legislative requirements for managing land contamination are met. It relies upon the principle that relevant data will be collected, processed, analysed and interpreted in line with good technical practice taking account of any specific advice issued by the relevant regulatory authorities.

4.5.1 Good Technical Practice

The established Industry approach for managing land contamination is presented at Land Contamination: Risk Management (https://www.gov.uk/government/publications/land-contamination-risk-management-

lcrm) . These procedures present a structured framework for making decisions at each stage of the risk management process.

The framework involves three components namely risk assessment, options appraisal and remediation & verification. Within each component there are three stages as shown in the table below:

Component	**Stage 1**	**Stage 2**	**Stage 3**
Risk assessment	*Preliminary risk assessment*	*Generic quantitative risk assessment*	*Detailed quantitative risk assessment*
Options appraisal	*Identifying feasible remediation options*	*Detailed evaluation of options*	*Select the final remediation option*
Remediation & Verification	*Develop a remediation strategy*	*Remediation and verification*	*Long term monitoring and maintenance*

As well as setting out a structured framework for risk management, LC:RM also provides supporting information and signposting, directing the reader to more detailed technical guidance on every aspect of the process.

The procedures set out in LC:RM together with an up-to-date list of supporting key technical guidance, accessed via the WALL (Water & Land Library) established by CL:AIRE (www.claire.co.uk/wall) are the core technical references for work carried out under the NQMS.

In complying with the requirements for continuing professional development (CPD) imposed by their respective professional bodies the SQPs will ensure that appropriate up to date techniques are employed in land contamination management work carried out by themselves and their teams.

4.5.2 Legislative Requirements and Regulatory Advice

As the aim of the NQMS is to get the standard of work “right first time” it is necessary for those operating under the system to be aware of the legal requirements for the work in question and of any standing advice from regulators on achieving compliance.

Although a standard technical approach can be taken to managing land contamination, the legislation setting out the standards to be achieved differ across England, Northern Ireland, Wales and Scotland. A list of key regulatory references has therefore been prepared for each country. The references for England are set out in Table 1 below as an example.

Example:	ENGLAND
Regime	Town & Country Planning (Planning)
Lead Regulator	Local Planning Authority
Key References	NPPF – National Planning & Policy Framework Any "Guidance to Developers/Standing Advice" (LA specific) Any Site Specific pre-Application Advice provided (LA specific)
Regime	Environmental Protection Act 1990: Part 2A (Contaminated Land)
Lead Regulator	Local Authority
Key References	Contaminated Land Statutory Guidance (April 2012) Radioactive Contaminated Land Statutory Guidance (April 2012) EA Guidance on Significant Pollution (in prep) Any Site Specific pre-Application Advice provided (LA specific)
Regime	Water Resources Act 1990 (Anti-Pollution Works Notices)
Lead Regulator	Environment Agency and Local Authority
Key References	Guiding Principles for Land Contamination Management
Regime	Environmental Permitting & Waste Management
Lead Regulator	Environment Agency
Key References	Remediation Position Statements
Regime	The Building Regulations
Lead Regulator	Local Authority
Key References	Approved Documents

The types of documents set out above will be the core regulatory references for work carried out under the NQMS. SQPs will have regard to this guidance when assessing the needs of any project and the adequacy of any subsequent reports.

4.5.3 Interpretation and technical auditing

It is a fairly straight forward matter to ensure that data is factually correct and has been obtained in the right manner. It is more challenging to assure the quality of the interpretations and conclusions drawn from that data with confidence to inform the decision making processes and determine the most appropriate course of action.

Given the wide range of uncertainties and variables that exist in land contamination management there will always be a degree of subjectivity or professional opinion involved in interpreting data. This is why great reliance is placed upon the use of competent and experienced staff and why the final product is assessed for compliance by a suitably qualified person.

In order to have confidence in the conclusions that are presented within any report it is necessary for clients, regulators and stakeholders to know that the data has been audited in a way that ensures that it is fit for

purpose. To this end the SQP is directed to apply (as a minimum) a list of critical questions and challenges in using their experience to assess the suitability of any product and before signing off the declaration which accompanies any report. These questions are set out in detail within Appendix 1. For October 2022 onwards, Appendix 1 includes 'tick boxes' that must be completed and the form signed and dated where required.

The list of critical questions has been compiled by regulators and practitioners experienced in the peer review of land contamination management data. They are not meant to be exhaustive in their coverage, but they do focus attention on those aspects of submissions that tend to have the most influence on decisions made and regulatory acceptability. The lists are not meant to duplicate or replace other standard checklists or quality management and control measures that are also used to ensure the factual (as opposed to interpretative) content, accuracy or style of reports. The SQP retains ultimate responsibility for assuring the quality of the product in question and can introduce checks over and above the generic list provided.

Compliance with the technical, regulatory and auditing guidance highlighted in Appendix 1 should ensure common understanding and acceptance of work undertaken to manage land contamination.

4.6 Stage 4 – Issuing the Declaration and applying the Quality Mark to the report

Once a SQP has prepared the report in line with the requirements of the NQMS they will be required to complete a declaration form in order to be able to apply the Quality Mark to the report. The declaration form will be available online on the NQMS website. Once the form is completed and the SQP is satisfied that all the details are correct, they then will accept as final and a nominal fee will be paid to authenticate the declaration form. On confirmation of payment a copy of the authenticated declaration form will be available to download for the SQP. The authenticated form will contain a unique reference number that will be automatically inserted on the form and will be linked directly to the SQP that has created it. This form then shall be signed by the SQP and included in the relevant document that has been reviewed. Each unique reference number will be listed on the publicly available SQP register and assigned to the appropriate SQP on the NQMS website. Each SQP will be required to create an account on the Scheme Administrator's website (if they do not already have one) to allow tracking of the declaration forms to each SQP and to allow payments to be processed.

A copy of the declaration form is included as Appendix 2 to this document for information.

The Scheme Administrator maintains a record of all documents bearing the Quality Mark. Each declaration will have a unique reference number and will be linked to an individual SQP. An example of the summary information held is set out below:

Unique Declaration No.	Date of Declaration	SQP	Type of Report	Report Reference	Additional Comments/Reference
NQM160056	06/07/2015	SQP076	Remediation Plan	LBH 4132a Ver 2.0, 3/04/2015	S Borsetshire DC 13/0468/FUL

The purpose of the declaration form is to provide assurances to the client that each relevant aspect of the NQMS has been followed and that the SQP is prepared to approve that report accordingly. In making the declaration the SQP is vouching for the quality of the product by drawing attention to their professional status and reputation. The declaration form is submitted as part of the report in question and as such any statements made will be covered by relevant professional indemnity insurances.

The purpose of the nominal flat fee is to cover the administration of the scheme, maintenance of the website and maintenance of the technical information resource (WALL) used by the SQPs to ensure that their technical and legislative knowledge remains up to date.

4.7 Stage 5 - Process Review Arrangements

The NQMS is designed to improve the quality of factual and interpretative reports relating to land contamination management. It is not a product in its own right and as such offers no separate insurances or guarantees. The basic premise is that the companies offering environmental or engineering services (and the individuals they employ) do so with the benefit of public and professional indemnity insurance. Liability for reports (and any advice they may contain) remains with the producing company or individual and does not pass to the SQP solely as a result of the application of the NQMS.

However, if either the client or regulator wishes to provide feedback concerning the systems, quality of a particular product or the performance of individuals operating under the scheme, then the NQMS has procedures in place to allow them to do so.

The Scheme Administrator will ensure that both proactive and reactive mechanisms are in place to capture feedback with the aim of ensuring that the scheme is subject to continuous improvement over time. A structured feedback form is provided via the NQMS website to allow for reactive feedback and surveys of SQP practitioners and regulators also take place.

Further details of the arrangements put in place for “scheme auditing” and responding to feedback, including the range of sanctions available for non-compliance can be found in Appendix 3.

APPENDIX 1 – TECHNICAL AUDITING OF REPORTS

In order to have confidence in the conclusions that are presented within any report it is necessary for clients, regulators and stakeholders to know that the data has been audited in a way that ensures that it is fit for purpose. To this end the SQP is directed to apply the following list of critical questions and challenges in using their experience to assess the suitability of any product and before signing off the declaration which accompanies any report.

The lists below have been compiled by regulators and practitioners experienced in the peer review of land contamination management data. They are not meant to be exhaustive in their coverage, but they do focus attention on those aspects of submissions that tend to have the most influence on decisions made and regulatory acceptability. The lists are not meant to duplicate or replace other standard checklists or quality management and control measures that are also used to ensure the factual (as opposed to interpretative) content, accuracy or style of reports.

The audit templates are available in PDF and Word format and are available to download directly here:

Appendix 1 Audit Template – PDF format

Appendix 1 Audit Template – Word Version

For all Land Contamination Management Reports
• Are the aims and objectives of the project and the purpose of the report clearly set out? • Has all information been presented and summarised in a clear and understandable way? • Have relevant uncertainties been highlighted together with their implications for any conclusions drawn? • Are the overall conclusions and recommendations robust and justified by the supporting data being presented? • Are the next steps appropriate and clearly justified? • Has the approach adopted for the site followed best practice and up-to-date guidance?
For Reports dealing with RISK ASSESSMENT (Stage 1)
Preliminary Risk Assessment (PRA) • Given the nature and size of the development, has a reasonable desk and site based study been presented to establish the land use history and environmental setting of the site and identified relevant contaminants, pathways and receptors? • Has a representative conceptual site model (CSM) been presented which identifies and assesses all relevant pollutant linkages having regard to the current and/or future site use (as appropriate)? • Have the limitations/uncertainties in the PRA and their effects on conclusions/recommendations been considered? • Has the basis of the decisions for the proposed next steps (e.g. no action, remediation or further risk assessment) been clearly presented and justified?

For Reports dealing with RISK ASSESSMENT (Stages 2 & 3)

Generic Quantitative Risk Assessment (GQRA)

- Is the site investigation design robust enough to gather the necessary site data, having regard to the aims and objectives of the project, the site setting and the CSM? In particular,
  - Have appropriate generic assessment criteria and tools been identified to enable risk estimation and evaluation and have their data requirements been incorporated into the design?
  - Are the choices of investigatory techniques appropriate?
  - Are the number, nature and locations of samples, testing and monitoring regimes sufficient?
- Has the collected site data been analysed and risks estimated appropriately using the right tools, techniques or methods. In particular,
  - Have the right substances been quantified with appropriate limits of detection?
- Have the pollutant linkages and risks to human health/controlled waters/other receptors been evaluated using appropriate generic assessment criteria and assumptions in line with the latest technical or regulatory guidance on compliance?
- Have the limitations/uncertainties in the GQRA and their effects on conclusions been considered?
- Has the basis of the decisions for the proposed next steps (e.g. further action, no action, remediation or further risk assessment) been clearly presented and justified?

Detailed Quantitative Risk Assessment (DQRA)

- Is the site investigation design robust enough to be able to gather the necessary data, having regard to the aims and objectives of the project, the site setting, the CSM and other parameters to develop site specific risk estimation models and site specific assessment criteria? (as per GQRA list above)
- Has the collected site data been analysed and risks estimated appropriately using the right tools, techniques models or methods. In particular,
  - Have the right substances been quantified with appropriate limits of detection?
  - Do the data/parameters used in any model adequately reflect actual site conditions?
  - Has any modelling been subject to sensitivity analysis and are the consequences of adopting more/less conservative data adequately expressed?
- Have the pollutant linkages and risks to human health/controlled waters/other receptors been evaluated using appropriate site specific assessment criteria and assumptions in line with the latest technical or regulatory guidance on compliance?
- Have the limitations/uncertainties in the DQRA and their effects on conclusions considered?
- Has the basis of the decisions for the proposed next steps (e.g. further action, no action, remediation or further risk assessment) been clearly presented and justified?

For Reports dealing with OPTIONS APPRAISAL

Identification of Feasible Remediation Options

- Have site specific remediation objectives been clearly identified for each relevant pollutant linkage?
- Are the remedial objectives appropriate including (where relevant) remedial target concentrations and compliance points having regard to the latest technical or regulatory guidance on those matters?
- Have other relevant site management objectives or constraints been identified that could influence the choice of feasible remedial options?
- Has a short list of feasible remediation options been identified for all relevant pollutant linkage?

- Has the basis of the decisions for the proposed next steps (e.g. chosen remedial option or further detailed evaluation) been clearly presented and justified?

Detailed Evaluation of Options

- Are the remediation evaluation criteria clearly presented? Sufficient site data and remediation option information should be presented to assess the merits and limitations of each option against the evaluation criteria.
- If sustainable remediation is an important attribute in the selection process, is it evident how the options appraisal has been consistent with the SuRF-UK framework?
- Have appropriate remediation options been identified for all pollutant linkage that are capable of meeting the required remediation objectives?
- Has the rationale for the preferred remediation option(s) for each pollutant linkage been clearly presented?

Developing the Remediation Strategy

- Has a remediation strategy been clearly described and presented to include:
  (i) how it will meet the objectives for individual pollutant linkages and the site as a whole.
  (ii) any relevant assumptions and caveats; and
  (iii) how unexpected contamination will be dealt with including procedures and contingency measures.

For Reports dealing with the IMPLEMENTATION OF REMEDIATION STRATEGY

Preparation of Implementation Plan

- Has an implementation plan been presented that clearly details all aspects of the remediation project in a systematic and effective manner? This implementation plan should translate the remediation strategy into a clear set of activities (e.g. design, preparation, implementation, verification etc) that will deliver the objectives for the site in accordance with client and regulatory requirements.

Design, Implementation and Verification of Remediation

- Pre-Implementation: Does the final form of the remediation design include design drawings, specifications and other relevant contract documents sufficient to demonstrate how the project will be executed in order to fulfil the relevant remedial objectives?
- Pre-Implementation: Has the requirement for any necessary environmental permits or permissions been adequately assessed?
- Pre-Implementation: Are all necessary H&S plans and site risk assessments in place and detailed within the design for remediation?
- Pre-Implementation: Are the measures set out in the Verification Plan sufficient to demonstrate achievement of the remedial objectives? In particular:
  - Have appropriate indicators and methodologies for measurement been chosen?
  - Is the frequency of testing and/or the duration of monitoring adequate?
- Post-Implementation: Has the remediation been undertaken in line with the approved remediation methodology, if not, have the variations been clearly documented and justified?
- Post-Implementation: Is there sufficient evidence in the verification report to demonstrate that remediation has performed in accordance with the agreed remediation design and has met the agreed remedial objectives and criteria for the regime in question?
- If any risks have not been effectively managed are suitable contingency measures in place to manage these residual risks?

Long term Monitoring and Maintenance

- If there is there a need for further monitoring and maintenance work has a suitable monitoring and/or maintenance plan been provided?
- Will any long term monitoring and/or maintenance adequately meet and/or demonstrate compliance with the defined remedial objectives?

APPENDIX 2 – EXAMPLE OF DECLARATION FORM

https://www.claire.co.uk/component/phocadownload/category/34-nqms?download=570:nqms-sample-declaration

APPENDIX 3 – SCHEME AUDITING ARRANGEMENTS

Reactive Auditing:

Land contamination management reports bearing the quality mark will undoubtedly be the subject of detailed technical review by relevant regulatory bodies. The number of reports reviewed in detail is expected to be higher in the first year or two of operation of the scheme as individual regulatory bodies are introduced to the scheme and build confidence in its application. It is the feedback of the reviewers within the respective regulatory authorities that will form the backbone of the reactive auditing process for the NQMS.

Feedback regarding the adequacy of individual Quality Marked reports will be passed in the first instance to the scheme administrator, who will seek to identify whether the matter pertains to the operation of the scheme itself and its attendant infrastructure and guidance, or whether it concerns the performance of an individual SQP.

Issues connected to the operation of the NQMS process will be investigated and dealt with directly by the scheme administrator. Where feedback relates to the performance and/or professional integrity of the SQP, the Scheme administrator will engage the SQP Provider to assist in investigating and resolving the issue, reporting to and taking advice from the NQMS Steering Panel as necessary.

As has been highlighted it is a fairly straight forward matter to ensure that data is factually correct and has been obtained in the right manner. It is more challenging to assure the quality of the interpretations and conclusions drawn from that data. In assessing whether a complaint regarding interpretation is upheld, the Scheme Administrator will be advised by the SQP provider as to the strength of any case using the list of critical questions and challenges contained within Appendix 1. Any recommendations will be referred to the NQMS Steering Group for a decision. Complaints will only be upheld if the decisions made by the SQP is considered to be incorrect, unreasonable or any statements and conclusions made were misleading.

If a complaint is upheld then a range of corrective actions can be taken depending on the facts of the case. Actions can range from making improvements to the procedures and guidance published in support of the scheme, to highlighting areas of improvement in capability of individual SQPs via CPD (continuing Professional Development) through to removal of a SQP from the register (for the most serious cases). There is also the ability to refer the details of the complaint through to the professional body awarding the Chartership status of respective SQPs for further action.

Further details of the disciplinary procedures and sanctions available under the NQMS are published separately by the SQP Provider and can be found at [NQMS/SiLC websites].

However it should be remembered that the NQMS is designed to improve the quality of factual and interpretative reports relating to land contamination management. It is not a product in its own right and as

such offers no separate insurances or guarantees. The basic premise is that the Companies offering environmental or engineering services (and the individuals they employ) do so with the benefit of public and professional indemnity insurance. Liability for reports (and any advice they may contain) remains with the producing company or individual and does not pass to the SQP.

Proactive Auditing:

In many cases either the client or the regulator may not wish to provide reactive feedback direct to the scheme administrator via the NQMS website. This may be because the NQMS is performing satisfactorily or any unsatisfactory issues with its application were considered minor in nature. It may also be because they did not have the opportunity to do so at the time due to other workload pressures.

In order to capture as much constructive feedback as possible the scheme administrator will liaise with SILC to undertake audits. Further details of how the audits will be undertaken will be detailed in the audit report.