

# CONTRACT TECHNICAL SPECIFICATION

## Technical Development Area for planning & design

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## REVISION RECORD

DATE	VERSION	STATUS	COMMENTS

**Note**

Within this document, the term “Consultant” applies to companies or individuals working in the capacity of consultant, contractor or supplier to RWM.

**KEY TO DOCUMENT STATUS**

**STATUS : DRAFT / APPROVED FOR TENDER / APPROVED FOR CONTRACT**

Approved for tender status means that approval has been given to the contents of this Contract Technical Specification for tender purposes only. It is not approved as the basis for entering into contractual commitments.

Approved for contract status means that approval has been given to the contents of this Contract Technical Specification for the purposes of entering into contractual commitments within the approved funding limits for this work.

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## Technical Development Area for planning & design

### 1. Introduction

As RWM's siting process progresses to forming several Working Groups, it will be important to have the capability to work with stakeholders to rapidly develop site-specific concepts and designs for candidate sites for a Geological Disposal Facility (GDF) in the communities with which it is engaged. A Technical Development Area (TDA) creates a dedicated space in which RWM can work collaboratively with its broad stakeholder base to develop and communicate plans and designs for delivering a GDF. This CTS seeks to attract a supply chain partner who can work with RWM to undertake the front-end planning and design work for a TDA.

The TDA will be highly versatile and equipped with a range of state-of-the-art, multidisciplinary modelling and visualisation facilities that initiate enduring interactions with community leaders, regulators, parliamentarians, supply chain partners, academics and young people. It will enable stakeholders and RWM staff to rapidly understand how we will work with local communities to deliver a GDF safely, cost-effectively and with a solution that is highly sympathetic to the environmental constraints of specific sites. Site-specific designs will test RWM's conceptual GDF designs (described in the 2017 generic disposal system safety case) against 'real' parameters presented by the details of local geology and surface characteristics. A TDA will be impressive visually and technologically, and it will build trust in RWM as competent developer.

As well as providing a facility in which RWM can develop bespoke designs and development concepts, the TDA will be an impressive space in which RWM can stimulate conversations with its many stakeholders. It will lead to much better understanding of why deep geological disposal represents the best solution to managing UK's higher activity waste legacy, and the role of GDF in Government's Clean Growth Initiative. The TDA will be designed to provide maximum versatility such that its limited space (up to 150m<sup>2</sup>) can be put to the widest range of uses.

RWM plans to deliver a TDA with initial operating capability end-FY 2010/21. This contract aims to develop solutions to the following questions.

- Who is the target group that will make use of a TDA?
- What facilities will go in the TDA and what will it look like?
- What are the main technical capabilities it will deliver?
- What are the benefits of a TDA for RWM and how should it be designed such that these benefits are optimized?
- How should the TDA be designed such that it maximises the opportunity to serve a secondary function as a place for influencing stakeholders using displays and exhibits to tell 'the story' of i) UK nuclear industry, ii) the need to dispose permanently of UK's radioactive waste inventory, and iii) role of GDF in Government's Clean Growth Initiative?

### 2. Objectives

1. Develop detailed plans for a suite of technical facilities that will work together to deliver the capability for RWM to develop site-specific concepts and designs, and to communicate its approach to communities and other stakeholders

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2. Produce a fully costed design for the TDA including details of layout, secure access, fittings and exhibits
3. Produce a TDA design that ensures maximum versatility thus ensuring it can easily be adapted according to RWM's evolving needs as the siting programme progresses
4. Define how the core function of the TDA as a high-tech modelling and visualization 'laboratory' can be used to influence stakeholders and support RWM's awareness-raising activities
5. Define the target usergroup both across RWM's stakeholder community, and internally as a facility that will be used to embed key messages and technical concepts among colleagues
6. Develop a plan for a suite of sustainable digital/social networking products that will complement the TDA e.g. website, Twitter, Instagram, etc.
7. Ensure that the TDA complies with modern standards of disabled access and that its construction, fitout and management complies with Construction, Design & Management Regulations (2015)
8. Ensure that public access to the TDA does not conflict with access restrictions in secure parts of the building in which the TDA will be housed
9. Ensure that the design and running of the TDA maximizes opportunities to deliver exemplary standards of environmental sustainability, such as a low-carbon footprint
10. Ensure that the TDA can deliver long-term value for money by producing a fully costed plan for the sustainable (financial and environmental) management of the TDA once it is up & running
11. Ensure that the TDA's digital technology (e.g. immersive 3D visualization, high-definition/large-scale projection, computing and numerical modelling capability, 3D printing) is fully compatible with RWM's evolving digital strategy and that the forward plan provides for its smooth running and maintenance
12. Articulate key messages, learning outcomes and the 'story' to be presented by the supporting exhibits and displays

### 3. Scope of work

- Startup meeting in Harwell including visiting the space that has been identified to house the TDA
- Appointment of a focus group (up to 10 participants) consisting of a representative cross-section of RWM colleagues who can provide ideas and feedback
- Fortnightly progress meetings both in Harwell and at contractor's offices, to include members of the focus group
- Presentation to RWM Executive prior to...
- Delivery of final report and designs
- Provision to work with RWM into FY2020-21 during the procurement, construction, fitout and delivery of the TDA

The table below gives alternative 1.5 year and 2.5 year delivery schedules for the TDA according to whether it needs to go through Cabinet Office controls to approve expenditure related to Advertising, Marketing & Communications and/or Digital & Technology. Given that RWM is currently in a live site selection process there is a need to deliver the TDA expeditiously thus a strong preference to design this project such that it falls within the constraints of Cabinet Office controls.

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	2019-20				2020-21				2021-2022			
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4
Engagement event												
ITT issue												
Contractor selection												
TDA design & planning												
Report												
Procurement of fit-out & installation contractor												
TDA fit-out & installation												
TDA inauguration & IOC												
Engagement event												
ITT issue												
Contractor selection												
TDA design & planning												
Report												
<i>Cabinet Office approval</i>												
Procurement of fit-out & installation contractor												
TDA fit-out & installation												
TDA inauguration & IOC												

### 4. Deliverables

Report providing details of different TDA options, to include plans of i) technical facilities with which the TDA will be equipped, ii) layouts, iii) illustrations of exhibits, iv) cost projections for fitout, and v) delivery and future management (projecting to 3 years following delivery and opening of the TDA).

### 5. 4.1 Transfer of Rights

Subject to any pre-existing rights, all information, reports, any other results and all Intellectual Property created or generated by you in the performance of the Services shall be our absolute property.

You grant us a non-exclusive, worldwide, perpetual, transferable royalty-free licence (including the right for us and any of our sub-licensees to sub-license) in respect of all Intellectual Property which does not belong to us but which is necessary to obtain the full benefit of the Services.

You agree (at our request and expense) to execute all such documents and do all such other acts or things as are necessary or desirable to transfer, vest in and/or confirm to us these rights.

You warrant that the Services will not infringe any Intellectual Property or other rights of any third party anywhere in the world.

The expression "Intellectual Property" means any inventions, know-how, trade secrets, trademarks, logos, processes, registered designs, design rights and all other designs (whether registerable or not), rights in databases, copyright, moral rights and all other rights or forms of protection (whether or not registerable and including applications for registration) of a similar nature or having a broadly equivalent effect anywhere in the world.

### 4.2 Deliverables Required

*This section should clearly identify the deliverables required.*

### 4.2 Format of Deliverables

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*Where the output of the contract is a report the following table may be used:*

CRITERIA	REQUIREMENTS
<b>Objective</b>	<i>{Specify the overall objective of the report, e.g., “provide an easily understood overview of...”}</i>
<b>Audience</b>	<i>{Specify the technical level of the intended readership, e.g., non-technical, technical, specialist}</i>
<b>Style</b>	<i>{Specify any particular style requirements, e.g., discursive, plenty of graphics}</i>
<b>Contents/Structure</b>	<i>{Specify any particular structure to be adopted}</i>
<b>Executive Summary</b>	<i>{Indicate whether an executive summary is required}</i>
<b>Introduction/Context</b>	<i>{Insert text or notes for Preface/Introduction}</i>
<b>Target length</b>	<i>{State approximate number of pages}</i>
<b>Special requirements</b>	<i>{State any special requirements or additional information.}</i>
<b>Review</b>	<i>The contractor should allow for a minimum of one review and amendment iteration.</i>

Guidance on the Radioactive Waste Management Limited’s (RWM) report requirements is contained in RWPR34-WI02 Contractors Reports to RWM – Guidance to Contractors, available from RWM.

### 6. Deliverables – electronic formats

The Contractor shall provide all text, graphics and drawing based document submissions, deliverables and records in a digital format to permit direct entry into the electronic document and record management system without the need for optical scanning, as well as one or more paper copies. Digital files should be provided in native Microsoft Word, MS Excel, MS PowerPoint, CorelDraw, Adobe Illustrator formats or preferably as Adobe PDF documents at print resolution. Such electronic files should be transmitted to RWM as attachments to Email messages or alternatively on standard magnetic, optical or NVRAM media. Documents carrying a protective security marking of OFFICAL - SENSITIVE or above must not be e-mailed. Irrespective of the acceptable application format used, all files should be presented such that they can be read by computers using a Microsoft Windows operating system. In addition, each item must be provided as a single file and this may constrain the way in which the Contractor provides the results. In these circumstances the Contractor shall inform RWM and agree an acceptable format before commencing work. The Contractor should contact RWM for advice should he wish to request a variation from any of these requirements, or to seek clarification of acceptable file types.

Engineering drawings must be submitted in an AutoCAD format that is supported by its publisher, and comply with the latest relevant British Standard for Technical Product Specification e.g. BS 8888 and/or its companion or European equivalent.

Additional formatting requirements specific to this work package are: **Insert additional requirements if required.**

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### 7. Technical and performance requirements

### 8. Specific requirements

### 9. Documentation, data or equipment to be supplied by the RWM

Contractor shall have full access to RWM's extensive suite of technical publications and public-facing information products.

### 10. Timescales

6 months from commencement of project start

### 11. Project management and progress reporting

### 12. Experimental work

*Consultants undertaking experimental or laboratory work are subject to the following requirements.*

#### 12.1 Identification and retention of samples

*The consultant must ensure that samples used or generated during the contract are uniquely and durably identified, in such a way that retains traceability to the relevant experimental work.*

*The original materials, samples generated and other materials that must be retained on completion of the work are specified in the table below.*

<i>Description of samples or material</i>	<i>Minimum retention time (years)</i>	<i>Storage conditions</i>	<i>Additional Comments</i>

*On expiry of the minimum retention time specified above, the consultant must inform the RWM in writing before destroying the samples or materials.*

#### 12.2 Records

*The consultant must maintain adequate and contemporaneous records of experimental work, sufficient to enable the work to be repeated in an identical manner. Laboratory logbooks will normally form part of these records and be subject to the requirements of paragraph 14.*

#### 12.3 Calibration of measuring equipment

*Equipment used for measurements that contribute to reported results must be calibrated, with traceability to relevant national standards, in compliance with an internationally recognised quality standard e.g. ISO 10012 or equivalent.*

#### 12.4 Wastes and liabilities

*The consultant will be responsible for the disposal of all wastes arising from the project, unless otherwise agreed with RWM. See also paragraph 13.*

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## 13. Quality assurance requirements

### 13.1 Quality System Requirements

*The work covered by this contract must be undertaken within the framework of a formal quality management system complying with an internationally recognised quality standard e.g. ISO 9001 or equivalent. The consultant must demonstrate compliance with this requirement in one of two ways:*

*Certification to ISO 9001 or equivalent*

*Consultants holding certification to ISO 9001 must provide a copy of their certificate of registration or other documentation, which confirms the following:*

- a) the quality system standard;*
- b) the certification body (must be UKAS accredited);*
- c) The scope of certification, which must be appropriate to the goods and/or services supplied.*

*Non-certificated consultants*

*Consultants which do not hold certification to ISO 9001 must demonstrate they operate an adequate quality management system by submitting appropriate documentation (procedures or quality plans) for review by the RWM Quality Department. This documentation should address the following:*

- a) Contract review;*
- b) Project management;*
- c) Document control;*
- d) Procurement, including the selection of sub-consultants;*
- e) Review and approval of deliverables;*
- f) Customer complaints;*
- g) Internal quality audits.*

### 13.2 Data and Models Quality Assurance

RWM operates specific quality assurance arrangements for the use of all data and models. The requirements for the handling of data and models are documented in the following RWM procedures:

- Data management procedure RWPR104
- Computer Modelling, Software Development and Calculation Checking procedure RWPR31

These procedures are designed to ensure that the provenance and quality of all data used for RWM technical work is documented and easily searchable and that all models used for RWM have been risk-assessed and are used in accordance with an approved Model Risk Assessment and Quality Plan.

The Contractor must comply with these RWM procedures or with their own equivalent procedures. If the work produces data that will be used by RWM, the data must be delivered in a format that complies with the Data Definition Form (DDF) requirements of procedure RWPR104. Any RWM data required for the work will be supplied to the Contractor as a DDF. Any input data sourced by the Contractor must be fully referenced with regard to its provenance and quality.

If the work involves the use, production or modification of models the Contractor must produce a quality plan that demonstrates adherence to appropriate quality assurance procedures around modelling, consistent with the requirements of RWPR31, and also

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demonstrates compliance with any additional requirements that may be supplied by RWM in the form of a Model Risk Assessment and Quality Plan.

### **13.3 Monitoring of the Consultant's Quality System**

*RWM reserves the right to undertake on-site, surveillance audits of the Consultant's quality system and the implementation of this contract. Any such audits will be notified in advance and the consultant will be expected to provide access to appropriate premises, personnel and records.*

### **14. Environmental requirements**

The consultant is responsible for complying with all applicable environmental legislation.

Consultants undertaking any practical work, i.e. other than desk-top research and report writing, must complete and return a copy of RWM's Environmental Assessment (Appendix A) and associated documentation, with their proposal or quotation.

### **15. Records**

The Consultant will maintain adequate records to demonstrate compliance with this Contract. These records will be identified and indexed such that they are easily retrievable. Records will be kept for a minimum of ten years after the completion of the contract. After this period the records will be offered to RWM. Records will not be destroyed without the permission of RWM.

## Appendix A

# RWM ENVIRONMENTAL ASSESSMENT

(To be returned with proposal/quotation)

<b>Contract title:</b>	
<b>Contractor</b>	

<b>1. Will the work involve the use of any radioactive substances?</b>	<input type="checkbox"/> <b>Yes</b>	<input type="checkbox"/> <b>No</b>
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If yes please give details:

Please attach copies of the following as applicable:

- Notification of the work required by regulation 6(2) or (5) of the Ionising Radiations Regulations 1999 (if available – must be provided before work commences).
- Risk assessment for the work required by regulation 7(1) of the Ionising Radiations Regulations 1999 (if available – must be provided before work commences).
- Certificate of registration for the premises granted under section 7(4) of the Radioactive Substances Act 1993

<b>2. Will the work generate any radioactive waste?</b>	<input type="checkbox"/> <b>Yes</b>	<input type="checkbox"/> <b>No</b>
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If yes, please give details:

Nature of waste(s)	Anticipated volumes	Disposal route

Please attach

- Copy of any certificate of authorisation granted under sections 13(1) or 14(1) of the Radioactive Substances Act 1993

<b>3. Will the work generate any hazardous or special wastes?</b>	<input type="checkbox"/> <b>Yes</b>	<input type="checkbox"/> <b>No</b>
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If yes, please give details:

Nature of waste(s)	Anticipated volumes	Disposal route

<b>4. Will the work generate any other controlled wastes?</b>	<input type="checkbox"/> <b>Yes</b>	<input type="checkbox"/> <b>No</b>
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If yes, please give details

Nature of waste(s)	Anticipated volumes	Disposal route to comply with Duty of Care regulations

Completed by (Print) \_\_\_\_\_ Date \_\_\_\_\_

Signature \_\_\_\_\_

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