Radioactive Waste Management

CONTRACT TECHNICAL SPECIFICATION

Provision of Advanced Waste Management Organisation (WMO) Knowledge and capability transfer to RWM

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16/04/19	3	final	Final version incorporating comments from procurement

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 / <u>APPROVED FOR TENDER</u> / 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.

(Provision of Advanced Waste Management Organisation (WMO) Knowledge and capability transfer to RWM)

1. Introduction

Knowledge and capability transfer from Waste Management Organisations (WMOs) that are at a more advanced programme stage than RWM is a fundamental activity that RWM is committed to. Cooperation with our 'sister' WMOs has been highlighted as a corporate strength by our regulators and raised as a positive aspect of our programme by numerous key RWM stakeholders.

In 2017 RWM developed a detailed Geological Disposal Technical Programme (GDTP). Along with siting, waste management and business support activities, GDTP will ultimately deliver Radioactive Waste Management's mission of delivering a geological disposal facility and providing radioactive waste management solutions. It will do this by delivering the construction, operation and closure of the Geological Disposal Facility (GDF) along with any support capabilities that are required to underpin delivery such as a research facility.

RWM is interested in exploring the possibility that a number of these GDTP activities could be delivered, quicker, to a better standard, cheaper or in a more optimised manner, if RWM can benefit from co-operation with a WMO with a more advanced programme. We primarily see this as access to information and people.

As well as access to information and people RWM also has a need to access and utilise international underground research laboratories (URLs) as part of our technical programme. This is because our 2009 position paper on 'Planning for Underground Investigations' [1] concluded that there are significant benefits in integrating underground investigation activities and disposal facility construction activities. This decision means that RWM is not planning to develop a stand-alone URL, as part of the UK GDF programme. Based on current programme/siting assumptions, we are 15-20 years from construction, therefore, this gives RWM a window of over 20 years without access to a UK URL. Such access is nevertheless necessary to support both our technical development and demonstration programme as well as our siting and engagement activities. For this reason RWM remains committed to maintaining our links and co-operation with a network of URL's located in rock-types of relevance.

This contract technical specification therefore seeks to support RWM's mission and delivery of the GDTP, by procuring access to information, expertise, capability, data and the facilities of a more advanced waste management organisation.

Objectives

The high levels objectives sought from this contract are as follows:

1. Improve confidence in the UK GDF programme by obtaining information, data, evidence and demonstrations showing GDF being successfully implemented abroad
2. Help to optimise the UK programme duration and minimise UK programme risks
3. Identify opportunities to improve value for money of the UK GDF Programme. For example, mature technology transfer into the UK programme (where possible and appropriate)
4. Provide capability development opportunities for RWM staff in specific identified areas that require strengthening

[1] NDA-RWMD Position paper on 'Planning for Underground Investigations' October 2009.

5. Access state-of-the-art facilities and capabilities that may be unavailable in the UK, in particular underground research/demonstration facilities and container manufacturing laboratories
6. Learn from the experiences of another more mature disposal programmes, in particular in the areas of siting, site characterisation and effective stakeholder engagement
7. Support RWM to construct a meaningful and realistic UK stakeholder engagement plan of activities

2. Scope of work

The scope of this proposed WMO knowledge and capability transfer contract can be broken down into three broad task areas, these are:

1. RWM access to proprietary information from a more advanced WMO/GDF programme
2. RWM access to the personal expertise and staff of a more advanced WMO/GDF programme
3. RWM access to the data and ongoing experiments from a more advanced WMO/GDF programme and their underground rock laboratory/demonstration facility

2.1 Task 1 RWM access to proprietary information from a more advanced WMO

The intended purpose of this first task is to allow RWM and the more advanced WMO to work together to define and plan areas of cooperation (i.e. develop a 5-10 year programme of activities) and then provide for RWM to access any proprietary information required to deliver the planned areas of cooperation. It is anticipated that this programme of activities could be arranged under the following geological disposal facility programme topic areas:

- Awareness Raising and Stakeholder Engagement
- Siting (including evaluation and selection)
- GDF Technology (including Design, Construction and Engineered Barrier Systems/disposal concepts)
- Safety Case (including transport operational and post-closure)
- Environmental Impact Assessment
- Other/Miscellaneous

The second focus of task 1 is to develop a framework of general terms to facilitate the cooperation planned in the above activity and allow the necessary access to proprietary information i.e. establish the legal framework for future technology transfer into RWMs GDF programme. This task will also need to facilitate RWM access to facilities of the advanced WMO (e.g. GDF, interim stores, container laboratory, etc.)
This legal framework should also include the definition of hourly rates for a range of WMO staff grades, for example Senior Expert, Expert and Administrative Assistant.

It is anticipated that RWM and the advanced WMO, based on this agreement, could then define and agree (on an annual basis) the specific projects that comprise the above mentioned programme of work. These individual projects might need to be the subject of a separate proposal from the advanced WMO and a separate financial order, or alternatively they could be delivered via use of the above suggested pre-agreed grades and rates and the below proposed Task 2 call-off contract (see Section 3.2).

RWM envisages that this task would likely comprise a fixed annual fee.

2.2 Task 2 Access to the personal expertise and staff of a more advanced WMO

The intention of Task 2 is to allow RWM to access capability and expertise (i.e. people) from an advanced WMO programme to help deliver the annual programme activities (in the specific areas of interest that have been agreed between the two parties) developed within task 1 (see above).

RWM envisages that this task would be executed under an approach of RWM reimbursing agreed allowable costs of the supplier in working with RWM on the programme activities agreed, therefore allowing the flexibility to manage the specific annual activities undertaken on a year-by-year basis and in accordance with annual budgets and company priorities.

2.3 Task 3 Access to data and ongoing experiments from a more advanced WMO and their underground rock laboratory/demonstration facility

In this third task RWM is seeking access to results and data from an underground rock laboratory and the scientific and demonstration experiments contained within. RWM's interest mainly involves data and experiments relating to the following scientific and demonstration topic areas:

- Geoscience
- Natural barriers
- Engineered barriers
- Mechanical and system engineering
- Measurement techniques

The successful organisation shall provide RWM with information and results from the experiments that are demonstrated to be relevant to the UK geological disposal programme.

It is envisaged that this information could be shared with RWM via annual technical meetings and a range of more targeted topic-specific meetings, workshops or activities.

RWM is also interested in obtaining written reports related to any relevant experiments and also, in particular instances, raw data pertaining to experiments or site characterisation activities.

RWM envisages that this task would likely comprise a fixed annual fee.

3. Transfer of Rights

All Information and Results would remain the property of the advanced WMO.

The copyright and all other intellectual property rights to and related to any shared reports made available under this Agreement shall be and remain with the advanced WMO.

RWM shall have a non-exclusive irrevocable right to use Information and results within its own radioactive waste management programme.

4. Deliverables Required

The Waste Management Organisation should propose a series of deliverables that meet the scope outlined in Section 3 above.

RWM envisages that this might comprise:

- A 5-year programme of engagement activities (that is updated annually following an annual planning meeting with RWM)
- Topic specific workshop or activity reports (typically around 3 per year)
- An annual progress report detailing the years activities and summarising the benefits to RWM

4.1 Format of Deliverables

The format of deliverables is to be agreed on a case-by case basis, however the main principle is that these deliverables should be in a format that enables easy distribution, while also being compliant with Data protection legislation.

Further 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.

4.3 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.

Technical and performance requirements

The forward programme will be agreed by RWM on an annual basis.

5. Specific requirements

The contractor must demonstrate that it has advanced its GDF programme to an advanced state, as exemplified by the presence of a supportive local community, a well characterised disposal site, the availability of a large-scale experimental and technology demonstration focussed underground facility and the submission of a comprehensive Safety Case.

6. Timescales

The project will last for an initial period of five years (April 2019- April 2024) with an option of extending for a further three and then a two years at RWM's discretion (i.e. a 5+3+2 year contract, 10 years in total).

7. Project management and progress reporting

Project management and progress reporting
The Work Package Manager (WPM) for this task will be:

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Building 58
Curie Avenue
Harwell Oxford
OX11 0RH

Progress on the work should be reported monthly. The report should be sent by email and contain the following information:

1. A brief statement (one or two sentences) describing the work undertaken during the previous month
2. An indication of the financial value of this work
3. A statement reporting the progress with respect to the project plan on a task by task basis
4. Any risks to the delivery of this work and proposed mitigation actions
5. Any other information which would be relevant to the WPM, e.g. periods of absence (business or other) of key staff

The contractor should liaise with the RWM responsible officer as, and when, any issues arise during the course of the work.

8. Quality assurance requirements

8.1 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 9001or 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.

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

8.3 Monitoring of the Contractor's Quality System

RWM reserves the right to undertake on-site, surveillance audits of the contractor'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.

9. Environmental requirements

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

10. Records

The Contractor 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)

Contract title:	
Contractor	

1. Will the work involve the use of any radioactive substances?	☐ **Yes** ☐ **No**

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

2. Will the work generate any radioactive waste?	☐ **Yes** ☐ **No**

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

3. Will the work generate any hazardous or special wastes?	☐ **Yes** ☐ **No**

If yes, please give details:

Nature of waste(s)	Anticipated volumes	Disposal route

4. Will the work generate any other controlled wastes?	☐ **Yes** ☐ **No**

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 _____