

AGREEMENT

Attending the Trial Run of Final Disposal of Posiva

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Posiva
Solutions

Client reg. number: SO2023-047

Attending the Trial Run of Final Disposal (TRFD)

between

Contracting parties

Client: **Česká republika – Správa úložišť radioaktivních odpadů**

Registeres office: Dlážďená 6, 110 00 Praha 1, Czech Republic

Represented by: RNDr. Lukas Vondrovic, Managing Director

ID: 66000769

Banking details:

Name of Bank: ČNB, Na Příkopě 28, Praha 1

Account No.: 35-64726011/0710

Not a payer of VAT

(hereinafter referred to as the "**Client**") and

Name of the company: **Posiva Solutions Oy**

Registered office: Olkiluoto, FI-27160 Eurajoki, Finland

Represented by: Mika Pohjonen, Managing Director

ID: 2765436-2

Tax ID:FI27654362

Name of the Bank: Nordea (NDEAFIHH)

Account No.: FI 28 1660 3001 1003 98

(hereinafter referred to as the "**Supplier**")

Project Manager from SÚRAO: Ing. Markéta Dohnálková

Project Manager from Posiva Solutions OY: Sanna Mustonen

ATTENDING THE TRIAL RUN OF FINAL DISPOSAL (TRFD)

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Distribution

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1 BACKGROUND

Posiva Oy ("Posiva"), which is the parent company of Posiva Solutions, is responsible for the final disposal of radioactive waste and spent nuclear fuel from nuclear power plants operated and owned by its shareholders in Finland.

Posiva has received a construction license for the construction of the deep repository for spent nuclear fuel in 2015 and is finalizing the construction of underground and aboveground final disposal facilities in early 2024. Posiva has submitted an application for operating license of the said facilities and is aiming at starting the final disposal in 2025.

Before the start of the final disposal Posiva is going to implement the **Trial Run of Final Disposal ("TRFD")**; a full-scale final disposal trial, the only deviation to real operations being that instead of spent fuel, mock-fuel assemblies will be used.

The TRFD verifies the whole chain of encapsulation plant and final disposal facility operations. The TRFD is carried out with the facilities, machinery, organisation and procedures, which will be used in the operation phase. It consists of the following main parts:

- description of the planning, design and construction of the disposal tunnel (*finished in 2020*) and holes (*to be finished in 2023*) for TRFD
- fuel transports
- encapsulation of four canisters
- final disposal in a 70-meter deposition tunnel and plugging it
- retrieval of a damaged canister

The Trial Run is thus not only technology and process test, but the operating organization and procedures are in place and tested as well. Qualified personnel operate the process using the QA/QC procedures and documentation required for a nuclear facility and taking into account safeguards.

The TRFD verifies the whole chain of encapsulation plant and final disposal facility operations.

2 SCOPE OF SERVICES

Posiva Solutions hereby offers a possibility for the Client to closely follow the TRFD, interact with the experts involved as well as receive information produced in this project as described below.

The services package includes one webinar, three 3-days workshops in Olkiluoto and a set of documents of the TRFD as described below. The workshops include ONKALO® & encapsulation plant visits. Maximum number of participants is four (4) per Client organisation due to safety-based limitations for visits to underground and aboveground facilities. These four persons do not need to be the same ones in every workshop.

The number of participants to the introductory webinar is not limited.

In addition, all workshops will be recorded and a possibility for additional participants of the Client organisation to view these is available.

Whenever employees of the Client are on site at Olkiluoto, the Client shall, at its own expense, acquaint itself with and comply with applicable safety legislation and other safety rules and regulations applicable for the Olkiluoto site. The Client shall comply with any safety instructions given by Posiva Solutions and/or Posiva.

2.1.1 Introduction webinar

The webinar programme will consist of:

- 1) Description of the TRFD
- 2) Purpose of the TRFD
- 3) Interactions with both internal and external stakeholders
- 4) Organization of the TRFD
- 5) Timetable of the TRFD
- 6) Requirements for readiness to start the TRFD: instructions, machinery, systems, materials, etc.

Due to big time differences the introduction webinar can be arranged two times to suit all participants' working times.

2.1.2 Workshop 1: Transport, tunnels & holes and encapsulation processes

The workshop programme will consist of the following topics:

- 1) Design of disposal tunnels and holes
- 2) Excavation of the tunnels
- 3) Boring of the disposal holes
- 4) Design and construction of the encapsulation plant
- 5) Verification of the facilities
- 6) Preparation works to initialize the encapsulation plant
- 7) Spent nuclear fuel transportation
- 8) Receiving final disposal canister components and canister assembly
- 9) Encapsulation
- 10) NDT inspections and verification of the canister
- 11) Canister transportation and storage
- 12) Interaction with authorities
- 13) An update of the present situation of Posiva's overall project including encapsulation plant construction work, construction and research work in ONKALO etc.

In addition, the workshop will include visits to both the encapsulation plant and underground facilities to familiarize with the current and past phases of the TRFD.

The preliminary workshop timing is February 2024.

2.1.3 Workshop 2: Disposal processes and retrieval

The workshop programme will consist of the following topics:

- 1) Buffer material, buffer installation and installation machinery
- 2) Canister installation and installation machinery
- 3) Backfill material, backfill installation and installation machinery
- 4) Plug materials, design and construction
- 5) Retrieval plan
- 6) Experiences from the retrieval
- 7) Interaction with authorities

In addition, the workshop will include visits to both the encapsulation plant and underground facilities to familiarize with the current phase and progress of TRFD since the previous workshop.

The preliminary workshop timing is April 2024.

2.1.4 Workshop 3: Lessons learned from TRFD

The workshop programme will consist of lessons learned on following topics:

- 1) Construction of the encapsulation plant and underground facilities
- 2) Encapsulation and disposal machinery and materials
- 3) Operation processes
- 4) Experiences from the operating organisation and personnel
- 5) Interaction with authorities
- 6) Plan to incorporate lessons learned to disposal operation processes and practicalities

In addition, the workshop will include visits to both the encapsulation plant and underground facilities to familiarize with the current phase and progress of TRFD since the previous workshop.

The preliminary workshop timing is June 2024.

2.1.5 Documents

The participants will get a series of documents describing the planning, organisation, implementation, and lessons learned from the TRFD:

- 1) Planning of the TRFD
- 2) Planned and realized functioning of tunnelling and hole boring

- 3) Planned and realized functioning of both cask and canister transport, encapsulation processes and retrieval
- 4) Planned and realized functioning of disposal processes
- 5) Lessons learned from TRFD and impacts on the disposal operation processes and practicalities
- 6) Workshop presentations

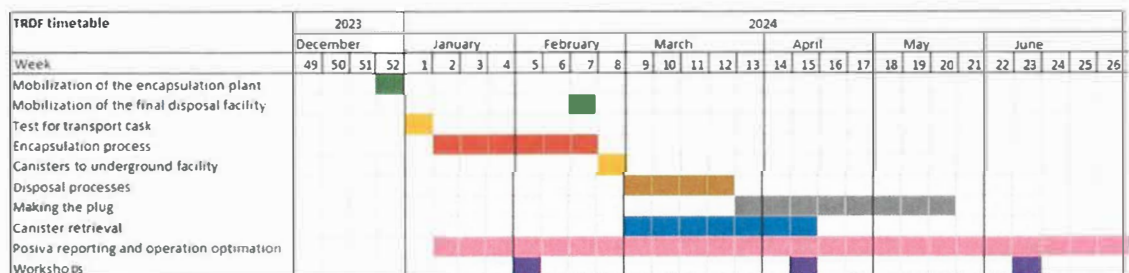
The abovementioned documents are anticipated to be ca. 100 – 200 pages reports describing the abovementioned phases 1 – 5 of the TRFD. Comments and questions of Clients during the workshops will be taken into account when compiling the documents. However, the documents will not for instance include detailed design like drawings, safeguards or security-related details.

3 SCHEDULE

The starting date is preliminarily at 1.10.2023. An introduction webinar will be held soon after that. Despite that the TRFD itself is planned to last approximately 7 months, the total duration of the TRFD participation project is approximately 12 months due to reporting.

Posiva Solutions shall have the sole right to make changes to the scope and time schedule of the services described in chapter 2 without having any liability to the Client. The Clients will be informed of possible changes as soon as possible.

Figure 1. Preliminary schedule of TRFD and the workshops.



4 DELIVERY ORGANISATION

4.1 Posiva Solutions Oy and Posiva Oy

Posiva Oy is responsible for the final disposal of used nuclear fuel of its owners Teollisuuden Voima (TVO) and Fortum Power and Heat in Finland. Posiva is in charge of R&D work regarding the final disposal of used nuclear fuel as well as the design, construction and operation of the encapsulation plant and deep geological repository. Posiva is finalizing the first phase of construction of its Deep Geological Repository and aims to start the final disposal as the first organisation in the world in 2025. For more information, please see www.posiva.fi.

Posiva Solutions (PSOY) is a subsidiary of Posiva Oy focusing on the sales of Posiva's knowhow accumulated in the final disposal of used nuclear fuel during the last 40 years. PSOY works as an expert in final disposal projects in Canada, China, Czech Republic, Denmark, Finland, France, Japan, Korea, Lithuania, Norway, Sweden, Switzerland, Taiwan and UK. For more information, please see www.posivasolutions.com.

Posiva and Posiva Solutions are certified according to ISO 9001, ISO 14001 and ISO 45001.

4.2 Delivery team

The core team consists of the following experts from Posiva Oy and Posiva Solutions Oy. In the following a brief description of their previous experience and competences of the team members is presented.

Ms. Sanna Mustonen, project manager. She joined Posiva Oy in 2003 and has worked for as a Research Coordinator with databases, machine development, EDZ and as project manager in various projects, like as a deputy project manager of FISST. Currently she works as a Senior Project Manager in Posiva Solutions. She will be responsible for this project.

Mr. Pasi Rantamäki, operation manager. He joined Posiva Oy in the year 2009 working with EBS components (clay components) and later as programme manager in the field of operation preparations. He also worked as a project manager in FST experiment.

Mr. Ari Maarni, programme manager. He is responsible for operation preparations, including TRFD. Before that Ari acted as a programme manager for canister development in Posiva Oy.

Ms. Marianna Hanni, system specialist. She joined Posiva Oy in 2016 to work as a project engineer with prototypes of EBS installation machines. Since then she has worked in Full-scale in situ implementation test (FST) managing the installing of EBS components and managing the planning and interfaces for operating facilities of Posiva specific machinery.

Ms. Reetta Ylöstalo, project specialist. Ms. Ylöstalo joined Posiva Oy in 2018, and her main responsibilities have been processing and reporting of hydrogeochemical measurement data, and Posiva's safety classified materials protocol. Since 2022 she has been working as a project specialist in Posiva Solutions.

In addition, numerous **Posiva's experts** related to the current topic and work phase (*design, excavation, modelling, authorization, EBS installation, machine development, QC, etc*) will be involved in preparations and giving the presentations in workshops. They are also available for discussions of special topics with the Client.

5 PRICE, INVOICING SCHEDULE AND TERMS OF PAYMENT

Participation fee (*includes 4 representatives/client. VAT to be added, if applicable*).

- ~~1 client: 675 000 € / client~~
- ~~2 clients: 600 000 € / client~~
- 3 or more clients: 520 000 € / client

The transport to and from Finland, local transport in Finland (*between Helsinki airport, Rauma and Olkiluoto*), accommodation and other similar direct expenses are not included in the fee.

All prices given by the Consultant are exclusive of any kind of direct or indirect taxes, withholding, duties, bank charges or other similar dues applicable outside the domicile of the Consultant. Any such taxes, withholdings, charges and dues shall be reimbursed by the Client in addition to the prices payable to the Consultant pursuant to this agreement.

The following invoicing schedule will be followed:

- Invoice 1: 30% after the introduction webinar
- Invoice 2: 30% after Workshop 1
- Invoice 3: 30% after Workshop 3
- Invoice 4: 10% after final report (lessons learned) delivery

Option to receive recordings of the workshops and related visits

Additionally, the Client can receive the recordings of the all the workshops and visits above ground and underground as described in Chapter 2 for 25 000 € / client. This amount will be added to the Invoice 4.

The Client is requested to inform Posiva Solutions of its commitment to use this option 6 months before the first workshop in Olkiluoto. This commitment is binding.

6 VALIDITY OF THE PROPOSAL

This proposal is valid until 30st September 2023.

7 TERMS AND CONDITIONS

7.1 Disclaimer

Posiva and/or Posiva Solutions do not give any warranties on the outcome of the TRFD. Thus, the Client accepts that the TRFD could also fail in meeting all or some of its targets and that Posiva and/or Posiva Solutions shall not in any

circumstances be liable for possible failure or any other outcome of the TRFD towards the Client or any third party.

The scope of work and deliverables agreed to be delivered by Posiva Solutions to the Client are provided on an "as is" basis with no guarantees whatsoever. The Client is aware that the TRFD has been developed solely for Posiva's use. The Client solely bears the risk of using the information from the workshops and documents ("Information") or part thereof for its own purposes.

Neither Posiva nor Posiva Solutions makes any express or implied warranties regarding the Information from the workshops and documents provided. Accordingly, Posiva and/or Posiva Solutions do not give any warranty regarding their correctness, accuracy, completeness, usefulness, merchantability, or fitness for any purpose.

7.2 Ownership to information from the workshops and in the documents and trademarks

- 1) All Information received under this Agreement shall be and remain as the sole property of Posiva and/or Posiva Solutions. Posiva Solutions, however, grants the Client with a non-transferrable and non-sublicensable license and right to use Information as specified in Chapter 2, provided by Posiva Solutions to the Client solely for the Client's internal use.
- 2) The copyright and all other intellectual property rights to and related to Information as well as to any other Posiva's and/or Posiva Solutions' final disposal activities, databases, reports and in any other forms of material or information shall be and remains with Posiva and/or Posiva Solutions.
- 3) The Client may not apply for patents or claim any other intellectual property right to Information. The Client may not use Information for any commercial purposes e.g. to sell, sub-license or otherwise provide it to third parties.

To avoid doubt, the Client can freely use the documentation for Client's project purposes, e.g. share it with its Suppliers. However, the Client or its Suppliers are not allowed to sell or give the documents forward and the Suppliers are not allowed to use those in other projects than those of the Client's. This should be mentioned in Client's contracts with the Suppliers when sharing these documents.

Additionally, the Client can allocate its places in workshops to its Suppliers personnel, but in that case those companies and/or persons must sign similar commitments as in this contract. Posiva Solutions will provide contract for this.

- 4) The said obligation of confidentiality shall survive termination of this Agreement.
- 5) Posiva's trademarks may not be used or registered by the Client.

7.3 Liability limitations

- 1) Neither Party shall under any circumstances whether as a result of breach of contract, negligence or otherwise be liable for any loss of profit, loss of use, losses by reason of plant shutdown, opportunities, revenues or business of the other Party, cost of capital or any special, punitive, indirect, incidental, collateral, or consequential damage or other similar indirect damage, incurred by the other party, and/or arising under or in connection with this Agreement.
- 2) The maximum aggregate liability of Posiva Solutions/Posiva for damages arising under this agreement is limited to hundred percent (100%) of the Purchase Price.
- 3) The limitations of liability set forth in this Agreement shall not apply to:
 - a) willful misconduct, or gross negligence
 - b) breach of confidentiality and/or intellectual property rights.
- 4) Neither Posiva nor Posiva Solutions shall assume any liability whatsoever for consequences of the use of the Information, including infringement of any third party's patents or other intellectual property rights. Any and all use of the Information shall be at the sole risk of the user. Posiva and/or Posiva Solutions shall thus in no case be liable for any damage of any kind related to the Information or the use thereof.
- 5) The Client shall ensure that its employees are fully insured against injury (including death) in accordance with law and established practice relevant to such employees.
- 6) Posiva Solutions nor Posiva shall not assume any kind of nuclear liability. The Client shall hold Posiva/Posiva Solutions harmless and fully indemnify Posiva/Posiva Solutions and its subcontractors from any nuclear liability and against any claims by third parties including the insurers of the Client.

7.4 Confidentiality

- 1) In the course of performing the obligations laid down in this Agreement or even before the date of this Agreement the parties may disclose information which may be considered to be the other party's trade secrets or otherwise confidential. All Information which has been disclosed to the other party orally, in writing or in electronic form shall be deemed confidential. Both parties shall agree that all the information mentioned above shall be treated as confidential, and that
 - a) it shall not use information it has received for other purposes than as stated in this Agreement, and that
 - b) it shall not disclose Information it has received to a third party without the prior written consent of the other party.

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- 2) The non-disclosure obligation will not, however, be applied to information that the other party can prove:
 - a) to have been publicly known or generally available at the time of disclosure,
 - b) to have become publicly known or generally available after disclosure not as a result of a breach of contract by the party to the contract receiving the information,
 - c) to have been in the possession of the party at the time of disclosure,
 - d) it has received from a third party without a non-disclosure obligation,
 - e) it has developed independently.
 - 3) The non-disclosure obligations shall remain valid forever despite the termination and expiration of this Agreement.

7.5 Force Majeure

Neither Party shall be liable for failure to meet contractual obligations under this Agreement due to Force Majeure.

Force Majeure is taken to mean unforeseeable events which occur after the signing of this Agreement and are outside the control of the Parties or against which the Parties could not have reasonably made provision, such as but not limited to general strikes or lockouts and other strikes or lockouts in the event they are initiated by a recognized trade union and are of national interest, not just related to the facility concerned and not arising as a result of breaches by either Party of applicable labour agreements or laws or similar causes, blockade, war (whether declared or not), mobilization, revolutions or riots, targeted cyberattacks, terrorist attack, natural disasters, floods, fire, government restrictions due to outbreaks of disease, epidemics, pandemics or quarantines, acts of God, insofar as such an event prevents or delays either Party from fulfilling any of his obligations under this Agreement.

8 APPLICABLE LAW

This Agreement shall be governed by the laws of Finland, with the exception of its conflict of laws provisions. The parties agree that the application of the United Nations Convention on Contracts for the International Sale of Goods (CISG) shall be excluded.

9 DISPUTE RESOLUTION

The parties undertake to solve any disputes regarding this Agreement amicably. If an amicable solution cannot be achieved, any dispute, controversy or claim arising out of or relation to this Agreement, or the breach, termination, or validity

thereof, shall be finally settled by arbitration in accordance with the Arbitration Rules of the Finnish Chamber of Commerce. The number of arbitrators shall be one. The seat of arbitration shall be in Helsinki, Finland. The language of the arbitration shall be English.

10 CONTACT INFORMATION

Our contact persons in issues concerning this proposal are Managing Director Mika Pohjonen (phone +358 40 525 1417) and Project Manager Sanna Mustonen (+358 40 505 1366), e-mail: firstname.lastname@posiva.fi.

Yours sincerely,

POSIVA SOLUTIONS OY

Date:

Mika Pohjonen
Managing Director

Sanna Mustonen
Project Manager

By signing this Proposal without any changes and during the validity period of the Proposal, the Client accepts all the terms and conditions in the Proposal, and the Proposal will automatically turn into an Agreement between Posiva Solutions Oy and the Client, which will become effective from the date of signature by the Client.

SÚRAO

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SÚRAO

SPRÁVA ÚLOŽIŠT
RADIOAKTIVNÍCH
ODPADŮ

(4)

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Lukas Vondrovic
Managing Director