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Planning

## **H3AT Atmosphere Detritiation System**

United Kingdom Atomic Energy Authority

F01: Prior information notice

Prior information only

Notice identifier: 2024/S 000-014857

Procurement identifier (OCID): ocds-h6vhtk-045860

Published 9 May 2024, 3:49pm

### **Section I: Contracting authority**

#### **I.1) Name and addresses**

United Kingdom Atomic Energy Authority

Culham Campus

Abingdon

OX14 3DB

#### **Contact**

Nicola Adams

#### **Email**

[nicola.adams@ukaea.uk](mailto:nicola.adams@ukaea.uk)

#### **Telephone**

+44 1235465379

## **Country**

United Kingdom

## **Region code**

UKJ14 - Oxfordshire

## **National registration number**

N/A

## **Internet address(es)**

Main address

<http://www.gov.uk/government/organisations/uk-atomic-energy-authority>

Buyer's address

<https://uk.eu-supply.com/ctm/Company/CompanyInformation/Index/72814>

## **I.3) Communication**

The procurement documents are available for unrestricted and full direct access, free of charge, at

[https://uk.eu-supply.com/app/rfq/rwentrance\\_s.asp?PID=81531&B=UKAEA](https://uk.eu-supply.com/app/rfq/rwentrance_s.asp?PID=81531&B=UKAEA)

Additional information can be obtained from the above-mentioned address

## **I.4) Type of the contracting authority**

Body governed by public law

## **I.5) Main activity**

Other activity

Fusion Research

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## **Section II: Object**

### **II.1) Scope of the procurement**

#### **II.1.1) Title**

H3AT Atmosphere Detritiation System

Reference number

T/NA069/24

#### **II.1.2) Main CPV code**

- 44610000 - Tanks, reservoirs, containers and pressure vessels

#### **II.1.3) Type of contract**

Supplies

#### **II.1.4) Short description**

UKAEA are looking for partner organisations to deliver the ADS for the H3AT project as an in-kind contribution. UKAEA wishes to engage with potential prime contractors, SMEs, system designers and manufacturers of equipment for the Atmosphere Detritiation System (ADS) within the Tritium Plant located in the new H3AT Facility in Culham site, to process tritium-bearing gases and liquid mixtures. The ADS equipment package would be located on and split between all four floors of the H3AT building. Below is a list of the key components in the ADS Equipment Package.

- Inlet high-efficiency particulate air (HEPA) filter
- Low temperature recombiner (LTR) and high temperature recombiner (HTR) inlet heaters
- LTR and HTR Recombiners
- Chiller
- Blowers
- Scrubber Columns
- Buffer tanks

- Demineralized water tank
- Valves and pumps
- Process stream and tank monitoring equipment including flow, temperatures, pressures, fluid levels and pH
- Incorporation of components in skid

### **II.1.6) Information about lots**

This contract is divided into lots: No

## **II.2) Description**

### **II.2.2) Additional CPV code(s)**

- 09310000 - Electricity
- 09320000 - Steam, hot water and associated products
- 09343000 - Radioactive materials
- 09344000 - Radio-isotopes
- 24111000 - Hydrogen, argon, rare gases, nitrogen and oxygen
- 24111600 - Hydrogen
- 31161400 - Primary water systems
- 38340000 - Instruments for measuring quantities
- 38420000 - Instruments for measuring flow, level and pressure of liquids and gases
- 38424000 - Measuring and control equipment
- 38570000 - Regulating and controlling instruments and apparatus
- 38930000 - Humidity and moisture measuring instruments
- 42120000 - Pumps and compressors

- 42122100 - Pumps for liquids
- 42131100 - Valves defined by function
- 42131140 - Pressure-reducing, control, check or safety valves
- 42990000 - Miscellaneous special-purpose machinery
- 42993000 - Chemical industry machinery
- 44610000 - Tanks, reservoirs, containers and pressure vessels
- 45255400 - Fabrication work
- 45262670 - Metalworking
- 45262680 - Welding
- 45300000 - Building installation work
- 51100000 - Installation services of electrical and mechanical equipment
- 51110000 - Installation services of electrical equipment
- 51120000 - Installation services of mechanical equipment
- 51810000 - Installation services of tanks
- 51820000 - Installation services of reservoirs
- 71242000 - Project and design preparation, estimation of costs
- 71320000 - Engineering design services
- 71323200 - Plant engineering design services
- 71335000 - Engineering studies

### **II.2.3) Place of performance**

NUTS codes

- UKJ1 - Berkshire, Buckinghamshire and Oxfordshire

## II.2.4) Description of the procurement

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ADS (pipework, equipment, and instrumentation) shall comply with the UKAEA tritium and quality standards. The leak rate for tanks and pipework for gas shall be 10<sup>-9</sup> mbar.L/s or better. (Figures provided are to assist in interpreting information provided, and not intended to constitute a specification or design). The purpose of the ADS is to remove and recover tritium, in all foreseen chemical forms, from gaseous effluents arising in other sub-systems prior to discharge to the atmosphere via the stack. In this way, the sub-system contributes to the reduction of tritium release via the stack to as low as reasonably practicable (ALARP).

Gaseous effluent enters the ADS system via a manifold. Downstream of the manifold, constant flow of compressed air is added to the gas stream before passing through low and high temperature recombiners. The purpose of the recombiners is to convert free and

chemically bonded hydrogen isotopes to water vapour.

### **II.3) Estimated date of publication of contract notice**

2 September 2024

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## **Section IV. Procedure**

### **IV.1) Description**

#### **IV.1.8) Information about the Government Procurement Agreement (GPA)**

The procurement is covered by the Government Procurement Agreement: Yes