



KOZLODUY NPP EAD Kozloduy

Bulgaria, Phone 0973 7 35 30, fax 0973 7 60 27

**TO ALL
INTERESTED PARTIES**

INVITATION FOR MARKET CONSULTATION No. 41205

Dear Sir or Madam,

Kozloduy NPP EAD hereby informs all interested parties that in connection with the preparation for a public procurement contract and determination of estimated cost, as per Article 44 of the Public Procurement Act, it now calls for indicative offers for "Supply of equipment for cleaning the Spent Fuel Storage Pool (SFSP) in SFSF".

The offers shall include the following:

- detailed description of the offered equipment in compliance with the Technical Specification enclosed below by separate positions;
- unit price and total cost w/o VAT for separate position;
- price for training on operation, maintenance and repair of the devices;
- information about the manufacturer of the equipment;
- information about date and terms of delivery, warranty period of the equipment and validity of the consumables;
- goods delivery documentation;
- exact address and contact person, phone number, fax, e-mail, internet address.

Enquiries in relation to the market consultations performed may be sent up to 4:00 PM on 07.06.2019 to e-mail: commercial@npp.bg, and clarifications will be published in the buyer's profile – Market Consultations section.

Deadline for submitting indicative offers: 4:00 PM on 21.06.2019, e-mail: commercial@npp.bg

The indicative offers and any other information exchanged in relation to the market consultation performed will be published in the buyer's profile – Market Consultations section.

By submitting indicative offers each participant in the market consultations agrees that the offer and any other information provided as a result of the market consultations will be made publicly available at the website of Kozloduy NPP EAD.

The Customer reserves the right to use indicative offers, received in the course of market consultation, for awarding public procurement contracts to the cost limit as per Article 20, paragraph 4 of the Public Procurement Act.

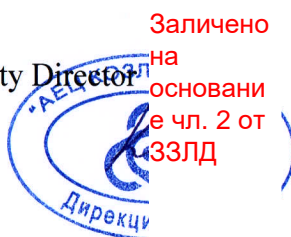
For any additional information, please contact Iliyan Iliev – Marketing specialist, tel. +359 973 7 66 47, e-mail: INiliev@npp.bg

Attachments:

1. Technical Specification
2. Indicative offer template

Legal and Commercial Activity Director

Katya Rusaliyska





KOZLODUY NPP EAD Kozloduy

Bulgaria, Phone 0973 7 35 30, fax 0973 7 60 27

TECHNICAL SPECIFICATIONS

for supply of equipment for cleaning the Spent Fuel Storage Pool (SFSP) in SFSF

General description, designation, technical parameters and characteristics of the equipment subject to delivery and the necessary consumables (bags/filters)

Separate position No. 1 – one device for capturing foreign materials under water, complete with 25 filters/bags

General description, purpose

The aim of the device for capturing side materials is to remove small materials that have fallen incidentally in the fuel storage pool (FSP). The device shall include a vacuum pump that can be hung on a crane to position it in the required location. Foreign materials shall be trapped in a filter or a filter bag. Considering the design of the FSP and the impossibility for the vacuum pump to be positioned under the segment cover, the device shall be equipped with a flexible connection providing access to the foreign materials. The end of the flexible connection with the suction head shall be able to be positioned in the required position by means of rods, the rods being able to form an angle of up to 45 degrees. In the case that a part of the device is positioned above the FSP, be aware that the construction of the segment cover is dimensioned for a payload $p = 400 \text{ kg/m}^2$ and a concentrating force $p=200 \text{ kg}$.

Equipment shall be qualified to operate under water (chemically demineralized water at pH ~ 5.7) at a depth up to 15 meters and at temperature up to 50 °C and to be made of stainless steel allowing for its decontamination. Equipment shall retain its working capacity with working fluid activity of up to $3,7 \cdot 10^5 \text{ Bq/l}$.

Technical parameters and features of the equipment

Size of the foreign material	Up to 10 mm.
Weight of the foreign material	Up to 30 grams

Device size	Maximum 1750 mm width
El. power supply	220/380 V/50 Hz
Protection grade	IP 68
Length of the flexible connection between the vacuum pump and the suction head	Minimum 3 meters (provided the vacuum pump is under water); A minimum of 15 meters * (provided the vacuum pump is over the FSP)
Length of rods to position the flexible connection to the foreign material	At least 15 meters * with a possibility to form an angle of up to 45 degrees
Diameter/Size of the connections between the cleaning device and the place above the FSP	Maximum 200 mm.

*Note: * It is desirable to be of several segments for the convenience of staff at work at a depth less than the maximum.*

The device shall be fitted with a control board.

Separate position No.2 – one vacuum cleaner operating under water, complete with 25 filters

General description, purpose

The purpose of the underwater FSP cleaner is to remove the slime and sludge accumulated on the bottom during operation. They are sucked in under water and held in a filter, as the water returns to the pool. The device can be suspended on a crane to be positioned in the required location. Taking into account the construction of the FSP and the impossibility of the device to be positioned under the segmented coating it needs to be equipped with a flexible connection providing access to the accumulated slime and sludge. The end of the flexible connection with the suction head shall be able to be positioned in the required position by means of rods, the rods being able to form an angle of up to 45 degrees. In the case that a part of the device is positioned above the FSP, be aware that the construction of the segment coating is dimensioned for a payload $p = 400 \text{ kg/m}^2$ and a concentrating force $p=200 \text{ kg}$. It shall be possible to replace the filter under water and to provide a secure container for the exhaust filters.

Equipment shall be qualified to operate under water (chemically demineralized water at pH ~ 5.7) at a depth up to 15 meters and at temperature up to 50 °C and to be made of stainless steel allowing for its decontamination. Equipment shall retain its working capacity with working fluid activity of up to $3,7 \cdot 10^5$ Bq/l.

Technical parameters and features of the equipment

Size of cleansed slime and sludge	Up to 5 mm.
Device size	Maximum 1750 mm width
El. power supply	220/380 V/50 Hz
Flow rate (recommended)	$15 \div 75 \text{ m}^3/\text{h}$
Protection grade	IP 68
Length of the flexible connection between the device and the suction head	Minimum 3 meters (provided the vacuum pump is under water); A minimum of 15 meters * (provided the vacuum pump is over the FSP)
Diameter/Size of the connections between the cleaning device and the place above the FSP	Maximum 200 mm.
Length of rods to position the flexible connection to the accumulated slime and sludge	At least 15 meters * with a possibility to form an angle of up to 45 degrees

*Note: * It is desirable to be of several segments for the convenience of staff at work at a depth less than the maximum.*

The device shall be fitted with a control board.

Separate position No. 3 – one device for cleaning the surface layer of the water in the FSP, complete with 25 filters.

General description, purpose

The purpose of the surface water purification device in the FSP is to provide better and safer operating conditions by:

- Removing floating dirt and foam from the surface of the FSP and maintaining the necessary transparency of the water;

- Removal of surface radioactive contamination to protect personnel and containers.

The device can be suspended on a crane to be positioned in the required location. Pollutants shall be trapped in a filter. The device shall float on the surface to be cleaned.

Equipment shall retain its working capacity with working fluid activity of up to $3,7 \cdot 10^4$ Bq/l and to be made of stainless steel allowing its decontamination. Equipment shall be qualified to operate under water (chemically demineralized water at pH ~ 5.7) at temperature of up to 35 °C.

Technical parameters and features of the equipment

Maximum overall dimensions	Maximum 1800 mm diameter
Flow rate	Minimum 12 m ³ /h
Filter – absolute filtering level by ISO4572	10 µm (micron)
El. power supply	220/380 V/50 Hz
Protection grade	IP 68

The device shall be fitted with a control board.

Equipment shall have a life time at least 10 years and a warranty period of at least 2 years.

The delivery of the equipment shall be accompanied by the means, required for maintenance and repair for 3 years, as well as non-standard/specialized parts, spare parts and tools, required for the normal operation of the devices (if any).

The delivery shall include specified consumables and filters. At the date of delivery of consumables and filters, not more than 10% of their lifetime set by the manufacturer shall have passed.

Contractor shall ensure that the consumables (filters/bags) and spare parts required for normal operation of the devices for at least 10 years from the date of delivery are available.

At least 10 people from the Spent Fuel Storage Department shall be trained by the Contractor on operation, maintenance and repair of the devices. The training shall be delivered according to a preliminary submitted programme, on site at the SFS Department.

Appendix No. 2 -
Template

Indicative offer as per market consultations performed No. 41205
with subject "Supply of equipment for cleaning the Spent Fuel Storage Pool in SFSF"

from
/participant's name, UIC, address, phone number, e-mail, contact person, job position/

Item No.	Description and technical specifications of the equipment offered	UOM	Qty	Unit price w/o VAT	Cost w/o VAT	Currency
Separate position No.						
Total cost w/o VAT						
Separate position No.						
Total cost w/o VAT						
Separate position No.						
Total cost w/o VAT						
Training of 10 people minimum						
Total cost w/o VAT						

Delivery date
Terms of delivery
Warranty period/ Validity
Delivery documentation
Information about equipment manufacturer

Signature, seal