

TENDER SPECIFICATION OF PERSONAL PROTECTIVE EQUIPMENT FOR CHEMICAL DISASTER RESPONSE TEAM (CDRT) (QTY: 03 LINE ITEMS)

1. **Name of the Item.** Personal Protective Equipment (PPE) of CDRT (Qty: 03 Line Items).
 - a. Chemical Protective Suit level A or Equivalent
 - b. Chemical Protective Suit level B or Equivalent
 - c. Chemical Protective Suit level C or Equivalent

2. **Purpose.** To shield or isolate the individual from Chemical, Biological and CWA agent.

3. **Quantity.** As follows:

Ser	Description	Number
1.	Chemical Protective Suit level A or Equivalent	08 in nos
2.	Chemical Protective Suit level B or Equivalent	06 in nos
3.	Chemical Protective Suit level C or Equivalent	10 in nos

4. **Year of Manufacture** : 2023 or later.

5. **Name of Manufacturer** : Name and full address including e-mail to be mentioned.

6. **Manufacturer Address and Website** : To be mentioned.

7. **Country of Origin** : USA, UK, Australia, Germany, Canada, Denmark, France, Finland, Italy, Japan, Netherland, Norway, Spain, Switzerland, Sweden, Austria, Brazil, Singapore, South Africa, South Korea, Turkiye & Bulgaria.

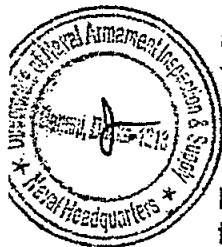
8. **Manufacturing Country** : USA, UK, Australia, Germany, Canada, Denmark, France, Finland, Italy, Japan, Netherland, Norway, Spain, Switzerland, Sweden, Austria, Brazil, Singapore, South Africa, South Korea, Turkiye & Bulgaria.

9. **Qualification of Bidder.**

a. Only an original Manufacturer (the Manufacturer) or an authorized dealer on their behalf, can submit quotation through their authorized agent (i.e. the Bidder) in Bangladesh. Offers from multiple manufactures might be allowed from such an authorized agent in Bangladesh.

b. **Certificate/ Document of Authentication.** The Bidder must provide following original certificate(s)/document(s) with the offer to authenticate genuineness of source and items(s) in order to establish chain of links from the original Manufacturer to the Bidder:

(1) 01(One) in on certificates/documents by the Manufacturer in favor of the Bidder (in case of Manufacturer as the Direct Source).



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(2) 02 (Two) in on Certificates/documents, 1st one by the Manufacturer to Authorized Agent and 2nd one by the Authorized Agent to the Bidder (in case of Manufacturer's Authorized Agent/ Seller as the Immediate Source.

(3) 03 (Three) in on Certificates/documents, 1st one by the Manufacturer to Authorized Agent and 2nd one by the Authorized Agent to Sub- Agent/ Seller and 3rd one by the Sub- Agent /Seller to the Bidder (in case Sub-Agent /Seller as the Immediate Source).

c. **Export License.** Obtaining 'Export License' for the sale of Personal Protective Equipment (PPE) for CDRT will be the responsibility of the Bidder (BN will provide 'End User Certificate'). The Bidder must mention this clearly in offer- except which the offer will be deemed incomplete and disqualified.

10. **Technical Specification.**

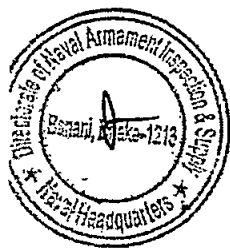
a. **Chemical Protective Suit Level A or Equivalent**

- (1) **Nomenclature** : Chemical Protective Suit Level A/To be mentioned.
- (2) **Year of Manufacturer:** Not before the Contracted Year.
- (3) **Purpose** : The suit shall provide top-of-the-line gas-tight and warfare agents protection.
- (4) **Key Application** : Key Applications as follows:
i. Work in explosive atmospheres.
ii. Hazmat Operation.
iii. Escape from contaminated environments.
iv. Chemical Handling.
v. Decontamination.
vi. Clandestine lab entry.
- (5) **Design** : Shall be encapsulating Level A design with visor, where the breathing apparatus is worn inside the suit and fitted with inside hump protection foam. Must have bat wing sleeve design. The visor of the suit must be made from a rigid 2 mm impact and chemical resistant PVC. Anti fog lens must be mounted on the inside of the visor and there must be a Visor LED Light System inside of the visor.
- (6) **Suit Material** : Details of the Suit material are as follows:
i. **Outer:** Shall be with strong, flexible and flame retardant agamid fabric coated on the outside with antistatic butyl rubber and an additional top layer of Viton rubber.
ii. **Inner:** Shall be a layer of chloroprene rubber and a multilayer barrier laminate.



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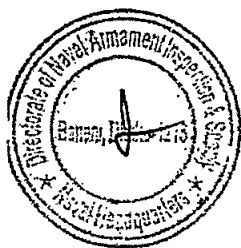
- (7) **Seams** : Shall be stitched with aramid thread for superior strength and durability. Covered on the outside with a Viton rubber tape and on the inside with a welded-on barrier laminate tape.
- (8) **Face piece** : Details of the Face Piece are as follows:
 i. High performance materials in the lens and bezel shall meet the rigorous.
 ii. Shall have Smaller, Kevlar head harness eliminates bunching and discomfort under helmets.
 iii. Shall have positioning tab assists with proper and quick donning.
 iv. Shall have Right or left communications bracket for maximum versatility.
 v. Shall have utilizes proven Sure Seal technology for enhanced comfort, fit and performance.
 vi. High performance lens and bezel for improved thermal performance.
 vii. With every suit, one set (10 pieces) tear off lens which protects the visor against scratches and admits easy cleaning after liquid splashes will be provided. Tear off lens material must be antistatic thermoplastic polyester and must be antistatic according to the ATEX Directive.
 viii. High visibility inhalation valves allow for easy inspection.
- (9) **SCBA** : Details of the SCBA are as follows:
 i. 5.5 Cylinder Technology is required.
 ii. Cylinder must be made of Aluminum.
 iii. Shall have "Buddy" lights to enable a 360° view of the firefighter's air pressure and PASS status.
 iv. Shall have a Snap-Change cylinder connection which provides rapid cylinder replacement and improves cylinder charging efficiencies.
 v. Shall have RFID-Enabled Bumper tracks cylinder fill history and monitors DOT compliance.
 vi. Shall have Easy-to-Remove Harness, Central Power Source and Universal EBSS.
 vii. Shall have Aluminum Alloy Back frame.
 viii. Shall have Proven Regulator Design.
- (10) **Glove Attachment** : The gloves shall be attached with a ring system for quick and easy exchange. The ring system must be with a triple sealing arrangement with an additionally safety locking pin. No tools must be required for exchange of gloves or operation of the ring system.
- (11) **Gloves** : The gloves sizes will be specified in the order stage.



- (12) **Zipper** : The suit must have durable gastight Highly Chemical Resistant zipper. The zipper must be on the front side of the suit for easy donning & doffing.
- (13) **Ventilation** : The suit must be equipped with the regulating valve which offers integrated suit ventilation for increased comfort and safety. The system must have a regulating valve and an inside hose system which distributes the air into sleeves, legs and hood. The Regulating valve flow rates of 0-2-30-100l/minute and must be fitted on the chest for easy handling by the wearer from the outside. Suit must have 2 piece over pressure valves.
- (14) **Footwear** : The suit shall be fitted with sewn-in socks made from the suit material. For suits delivered with socks, one pair of silicone coated over socks must be supplied together with the suit to ease the donning the safety boots.
- (15) **Boots** : With every suit one pair of Nitrile rubber firemen boots must be provided. Boots sizes will be Large 03 pairs, medium 05 pairs and short 02 pair as per international standard.
- (16) **Communication System:** To be mentioned.
- (17) **Color** : To be mentioned. White/ Silver/ Any less absorptive color will be preferable for inside color.
- (18) **Sizes** : Suit shall be available in XL size (Body height: 180-188 cm, Chest Girth: 110-118 cm)
- (19) **Standard Accessories:** To be mentioned.
- (20) **Certification (Shall attach with offer):** The offered item shall not be hazardous for human head, body, Skin or any other organ during operation.
- (21) **Usability** : It shall be Re-usable (At standard quality up to shelf life).

b. **Chemical Protective Suit level B or Equivalent**

- (1) **Nomenclature** : Chemical Protective Suit Level-B/To be mentioned.
- (2) **Year of Manufacturer:** Not before the contracted Year.
- (3) **Purpose** : The suit shall provide excellent protection against chemical, abrasion and flame.



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- (4) **Key Application** : Key Applications as follows:
i. Escape from contaminated environments.
ii. Chemical Handling.
iii. Decontamination.
iv. Clandestine lab entry.
- (5) **Design** : Non-encapsulating design type T (with face seal and without hump, BA worn outside the suit), suitable for work in confined spaces. Provides an outstanding barrier against a wide range of chemicals.
- (6) **Suit material** : Patented fabric system with chloroprene rubber on an aramid base fabric, providing excellent flame and abrasion resistance. Outer: Strong, flexible and flame retardant aramid fabric coated with chloroprene rubber. Inner: Chloroprene rubber and a multilayer barrier laminate.
- (7) **Seams** : Shall be stitched with aramid thread for superior strength and durability. Covered on the outside with a chloroprene rubber tape and on the inside with a welded-on barrier laminate tape.
- (8) **Face Seal** : Anatomically designed rubber face seal.
- (9) **Glove attachment** : The gloves shall be attached with a bayonet glove ring system, which offers quick and simple glove exchange.
- (10) **Gloves** : To be mentioned.
- (11) **Zipper** : A zipper shall include a barrier film for increased chemical resistance. The zipper will be closed downwards, for added safety, and is protected by a flap/splash guard.
- (12) **Ventilation** : A ventilation system must be included as standard. For the safety of the wearer, it shall provide a constant level of over pressure inside the suit.
- (13) **Face piece** : Details of the Face Piece are as follows:
i. High performance materials in the lens and bezel shall meet the rigorous requirements.
ii. Shall have Smaller, Kevlar head harness eliminates bunching and discomfort under helmets.
iii. Shall have positioning tab assists with proper and quick donning.
iv. Shall have Right or left communications bracket for maximum versatility.



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- v. Shall have utilizes proven Sure Seal technology for enhanced comfort, fit and performance.
- vi. High performance lens and bezel for improved thermal performance.
- vii. High visibility inhalation valves allow for easy inspection.

(14) SCBA

- : Details of the SCBA are as follows:
- i. 5.5 Cylinder Technology is required.
 - ii. Cylinder must be made of Aluminum.
 - iii. Shall have "Buddy" lights to enable a 360° view of the firefighter's air pressure and PASS status.
 - iv. Shall have a Snap-Change cylinder connection which provides rapid cylinder replacement and improves cylinder charging efficiencies.
 - v. Shall have RFID-Enabled Bumper tracks cylinder fill history and monitors DOT compliance.
 - vi. Shall have Easy-to-Remove Harness, Central Power Source and Universal EBSS.
 - vii. Shall have Aluminum Alloy Back frame.
 - viii. Shall have Proven Regulator Design.

(15) Footwear

: It shall be sewn-in socks/booties made of the suit material. The boots shall be fixed with an ergonomically designed ring attachment, for simplified boot exchange.

(16) Boots

- i. Material shall be Nitrile rubber enhanced PVC compound.
- ii. Boot design shall be Knee-high safety boot type D.
- iii. Liner shall be Textile.
- iv. Weight maximum 2 kg/4.7 lbs per pair.
- v. Boots sizes will be large-03 pairs, medium-07 pair and short-02 pair as per international standard.

(17) Communication System: To be mentioned.

(18) Color : To be mentioned. White/ Silver/ Any less absorptive color will be preferable for inside color.

(19) Sizes : Suit shall be available in XL size (Body height: 180-188 cm, Chest Girth: 110-118 cm)

(20) Usability : It shall be Re-usable (At standard quality up to shelf life).

(21) Certification (Shall attach with offer): The offered item shall not be hazardous for human head, body, Skin or any other organ during operation.

(22) Communication System: To be mentioned.



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c. Chemical Protective Suit Level C or Equivalent

- (1) **Nomenclature** : Chemical Protective Suit Level-C/To be mentioned.
- (2) **Year of Manufacturer:** Not before the contracted Year.
- (3) **Purpose** : The suit shall be splash protective cover all for protection against chemical spray and others in low-risk environments.
- (4) **Key Application** : Key Applications as follows:
 i. Offers protection against infective agents.
 ii. A versatile everyday work wear.
 iii. Shall be made from a soft and flexible fabric, ensuring wearer comfort.
 iv. Chemical Handling.
 v. Decontamination.
 vi. High-visibility material for added safety at the workplace.
 vii. Provides good protection against alkalis and acids.
 viii: Emergency team and first responders.
 ix. Petrochemicals.
- (5) **Design** : Coverall with drawstring hood. Suit Hood fitted with elastic drawstring and chin flap with Velcro and fits under a safety helmet.
- (6) **Suit material** : Material shall be polyester fabric, single coated with PVC. PVC is suitable for protection against alkaline chemicals in all concentrations, such as sodium hydroxide and ammonia, and against low to medium concentration acids, such as hydrochloric acid.
- (7) **Seams** : Shall be double welded.
- (8) **Glove attachment** : The gloves shall be open sleeves with hook-and-loop straps.
- (9) **Gloves** : With every suit one pair of Neoprene rubber gloves with cotton liner will be provided. The gloves size will be specified in the order stage.
- (10) **Footwear attachment:** Open legs with elastic.
- (11) **Boots** : With every suit one pair of PVC Safety boots with steel toecap, steel midsole and oil resistant sole will be provided. Boots size will be large -15 pairs, medium -30 and short -15 as per international standard.



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- (12) **Zipper** : The suit must have nylon zipper on the front protected by a double splash protective flap closing with press studs. The suit must have open sleeves with Velcro strap closing.
- (13) **Sizes** : Suit shall be available in XL size (Body height: 180-188 cm, Chest Girth: 110-118 cm).
- (14) **Other Accessories** : Hard Hat, Chemical Warfare Agent gas. Mask with two canisters.
- (15) **Usability** : It shall be Re-usable (At standard quality up to shelf life).
- (16) **Certification** (Shall attach with offer) : The offered item shall not be hazardous for human head, body, skin or any other organ during operation.

11. **Environmental Condition of Storing.**

- a. Ambient Temperature : 15°C to 30°C.
b. Relative Humidity : 60% to 70%.


12. **Environmental Condition of Operation.**

- a. Operating Temperature : 0°C to 50°C.
b. Relative Humidity : Up to 98%.

13. **Packing Details.** Equipment is to be packed in hermetically sealed condition and standard sea/ air worthy packing. Material and size of box, number of item per box, weight per box etc. are to be mentioned in the offer.

14. **Brochure/Catalogue.** 01 (one) copies of product brochure/catalogue in English are to be provided with the offer for evaluation of tender.

15. **Manuals.** Following manuals and documents (in English) are to be provided with the Personal Protective Equipment (PPE) of CDRT free of cost:

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- a. 02 (two) Sets of Operating Manual in English (Complete Procedure).
b. Technical/ Repair/ Service Manual in English.
c. Illustrated Parts Catalogue in English.
d. Any other essential document necessary for safe and easy operation and maintenance of equipment.

16. **Training.** After completion of satisfactory test/trial acceptance, the manufacturer expert will provide online practical training to CDRT staff under arrangement of supplier.

17. **Warranty.**

- a. Warranty is to be given for 01 year from the date of final acceptance by BN. If any defect/discrepancy of any item arises within the period of warranty, the specific

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period from the date of notification to the supplier up to the date of rectification of defect/ resolve of discrepancy will have to be extended from the warranty period for those particular items.

b. If any defect/discrepancy arises within warranty period, then the items are to be replaced free of cost including freight within 03 (three) months from the date of notification of the same to the supplier. In this regard, the supplier must furnish an undertaking with the offer by stating, "We do hereby assure that we take the liability to replace all items free of cost including freight within three months from the date of notification about the defect/discrepancy of the items by the buyer, if it occurs within the period of warranty". For warranty replacement, the supplier will collect the defective items from NSD Chattogram and re-supply the same to the collecting place.

C. Warranty certificate will be supplied with the offer.

18. **Manufacturer's Guarantee Certificate.** Certificate from the manufacturer is to be provided with the offer that the items are new, unused and produced by them in the year 2023 or later will be supplied. It is also to be certified that the offered items will comply with the technical specification mentioned in para 10.

19. **Guarantee for Warranty.** Guarantee is to be given that the each item will be suitable to meet the purpose mentioned in Para-2. Certificates are to be provided with the stores.

20. **Undertaking.** An Undertaking Certificate from the supplier must be attached with the offer by stating, "We do hereby assure that if the Personal Protective Equipment (PPE) of CDRT is found unsuitable for use in the mentioned in Para 2 used by Bangladesh Navy, the Personal Protective Equipment (PPE) of CDRT is to be taken back and changed with suitable one for which we shall bear all the cost of to and fro Bangladesh".

21. **Quality Assurance.** Quality Assurance certificate is to be provided by the appropriate Quality Assurance Organization of the manufacturer country.

22. **Shipment and Delivery.**

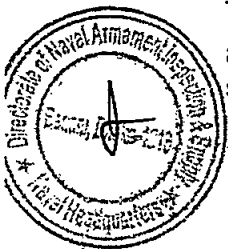
a. **Place of Delivery:** The supplier will arrange shipment of all the items by sea/air to Chattogram/Dhaka. Consignee address is as follows:

By Sea

THE COMMANDING OFFICER
NAVAL STORES DEPOT (NSD)
NEW MOORING
CHATTOGRAM, BANGLADESH.

By Air

THE OFFICER-IN-CHARGE,
NAVAL STORES SUB DEPOT, DHAKA
KHILKHET NAVAL AREA,
NAMAPARA KHILKHET, DHAKA-1229



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- b. Delivery Schedule. Items will have to be delivered (without import duties) 120 days from the date of signing of the contract.
- c. Port of shipment. Port of shipment will be in manufacturing country.
23. Final Acceptance. Final acceptance of the supplied Personal Protective Equipment (PPE) of CDRT will be given after satisfactory Joint inspection and Test/Trial by the Naval Armament Inspecting Organization (NAIO), Chattogram in presence of supplier's representative.
24. User List. List of users indicating year is to be mentioned.
25. Terms of Payment. Total (100%) payment will be made in local currency after satisfactory joint inspection, Final acceptance and Test/Trial by Bangladesh Navy.
26. Validity of Offer. Up to 30 June 2024.
27. Compliance Statement. A compliance statement fulfilling all the required information is to be mentioned with the offer for evaluation of tender. Any deviation from the specification is also to be mentioned in the offer. Mere mentioning of Yes/No or comply will not be enough; detail technical data/information of the offered item are to be provided. Incomplete compliance statement may attribute to cancellation of the offer.

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