

ANNEX 21K**FIREFIGHTING IN A CHEMICAL ENVIRONMENT - BA PROCEDURES****1. General**

The protective clothing for firefighting in various CBRN environments is detailed in [Chapter 25](#). When a ships firefighting team is required to leave the citadel to fight a fire in a chemical environment (liquid or vapour) the following BA procedures should be adopted.

2. Before Leaving the Citadel

- a. The BA Controller is to carry the teams' respirators (in their haversacks).
- b. The Firefighting Team is to remain in the citadel, 'off air', until informed that all hoses are rigged.
- c. The Team is to be briefed before they go 'on air'.
- d. The Team and BA Controller are to exit the citadel under the control of HQ1.

If the ship is free from contamination within the citadel, then it may be possible for the team to exit the ship 'on air' (after undertaking the normal face seal check) and proceed directly to the fire (endurance of the BA set should be considered). However, if those inside the citadel are wearing respirators when the team is required to exit the citadel, then the following routines for changing from respirators to EDBA should be followed.

3. Changing from General Service Respirator to EDBA

The firefighter should change from respirator to EDBA in the following manner:

- a. Select a sheltered position (if on the upper deck).
- b. Put on the EDBA set, check the Demand Valve (DV) bypass valve is in the closed position and opens the bottle fully. To ease donning the facemask with the eyes shut, the straps should be folded around the front of the facemask and the facemask neck strap placed out of the way of the facemask. Firefighting gloves are placed, open end down, under the EDBA waist strap.
- c. Decontaminate the EDBA facemask and straps using Fullers Earth (DKP1).
- d. Remove headgear and anti-flash hood (firefighting hood remains in place around the neck) in a vapour environment. IPE suit hood is to be removed if in a liquid environment.
- e. Using the 'buddy system', open the EDBA DV bypass valve, take a deep breath and shut the eyes. The BA Controller then removes the Firefighters respirator and the Firefighter, bending forward, dons the firefighters hood and the EDBA facemask
- f. Ease the top of the facemask away from the forehead momentarily to allow the air to purge out of the mask. Tighten the head harness straps, open the eyes and continue to breathe. Take a deep breath to operate the first-breath positive pressure mechanism and then turn off the by-pass.

- g. Carry out a face seal check.
- h. Pull up the firefighters hood, don FFHBC and, if in a vapour environment, put on firefighting gloves. Using the 'buddy system' check each others dress.
- i. The BA Controller, on completion of filling out the control board, decontaminates the respirators, placing them in their haversacks and keeps them available for future use.

4. Changing from EDBA to General Service Respirator

- a. The four man Firefighting Team should change from EDBA to respirators in the following manner.

- (1) If dressed as required for a vapour hazard environment:
 - (a) Select a sheltered position on the upper deck.
 - (b) Remove FFHBC. The BA Controller then removes the firefighting gloves and rolls the firefighters hood down around the Firefighters neck.
 - (c) The BA Controller opens the Firefighters haversack and presents the respirator and DKP1 to the firefighter, who removes these items.
 - (d) The Firefighters decontaminate their respirators and the BA Controller decontaminates his gloves with Fullers Earth (DKP1).
 - (e) The Firefighter takes a deep breath and shuts his eyes. The BA Controller removes the EDBA facemask and the Firefighter dons his respirator in the normal manner, breathing out hard to clear any contamination inside.
 - (f) When the BA Controller has removed the EDBA facemask from the firefighter, he presses the DV re-set button.
 - (g) If necessary, the Firefighter, using the 'buddy system' carries out the personal decontamination drill (see BRd 2170(2)).
 - (h) The Firefighter replaces his firefighters hood and firefighting gloves and takes his haversack from the BA Controller.
 - (i) The Firefighter collects all items of firefighting clothing and equipment and proceeds to the weathering point on the upperdeck.
 - (j) EDBAs and firefighters' helmets etc are then hung up to weather.
 - (k) Firefighters (wearing the fire suit and respirator) then proceed to the Cleansing Station to enter the ship.
- (2) If dressed as required for a liquid environment:
 - (a) Select a sheltered position on the upper deck.

- (b) Decontaminate CBRN gloves using Fullers Earth (DKP1).
 - (c) Loosen and pull back the hood of the CBRN suit.
 - (d) The BA Controller opens the Firefighters haversack and presents the respirator and DKP1 to the Firefighter, who removes these items.
 - (e) The Firefighters decontaminate their respirators and the BA Controller decontaminates his gloves with Fullers Earth (DKP1).
 - (f) The Firefighter takes a deep breath and shuts his eyes. The BA Controller removes the EDBA facemask and the Firefighter dons his respirator in the normal manner, breathing out hard to clear any contamination inside.
 - (g) When the BA Controller has removed the EDBA facemask from the Firefighter, he presses the DV re-set button.
 - (h) Using the 'buddy system', the Firefighter carries out the personal decontamination drill (see BRd 2170(2)).
 - (i) The Firefighter replaces his CBRN hood and takes his haversack from the BA Controller.
 - (j) The Firefighter collects all items of firefighting clothing and equipment and proceeds to the weathering point on the upperdeck.
 - (k) EDBAs, etc are then hung up to weather.
 - (l) Firefighters then proceed to the Cleansing Station to enter the ship.
- b. The procedure for undressing and cleansing from a fire suit is detailed in BRd 2170(2).