CLAIMS:

1. An NBC filter unit for use in a safe room NBC filtration system, comprising: a casing; at least one inlet port; at least one outlet port; a particulate filter; and a gas adsorption filter; wherein said NBC filter unit further comprises an integral ventilation bypass and air flow direction means selectively operated to direct air flow internally from said at least one inlet port to said at least one outlet port, either through said bypass, constituting a ventilation mode, or through said particulate filter and gas adsorption filter constituting an NBC filtration mode, wherein said NBC filter unit further comprises an internal shell encapsulating said particulate filter and said gas adsorption filter, and said air flow direction means are operated by an axial movement of said internal shell in relation to said casing, or
wherein said NBC filter unit further comprises a hollow member sealingly passing trough said casing, said particulate filter and said gas adsorption filter and said air flow direction means are operated by an axial movement of said casing in relation to said hollow member.
2. An NBC filter unit as claimed in claim 1, further comprising four volumetric compartments, a primary inlet compartment adjacent said at least one inlet port, a primary outlet compartment adjacent said at least one outlet port, a secondary inlet compartment upstream said particulate filter and a secondary outlet compartment downstream said gas adsorption filter.
3. An NBC filter unit as claimed in claim 2, wherein said primary inlet compartment and said primary outlet compartment are air flow communicated through said integral ventilation bypass, when said air flow direction means are set to said ventilation mode.
4. An NBC filter unit as claimed in claim 2, wherein said secondary inlet compartment and said secondary outlet compartment are air tight sealed from ambiance by said flow direction means when said flow direction means are set to said ventilation mode.
5. An NBC filter unit as claimed in claim 2, wherein said primary inlet compartment and said secondary inlet compartment are air flow communicated; said primary outlet compartment and said secondary outlet compartment are air flow communicated; and said primary inlet compartment and said primary outlet compartment are air flow disconnected; when said air flow direction means are set to said NBC filtration mode.
6. An NBC filter unit as claimed in claim 1, wherein upon reaching an end of life period or in case of NBC contamination, said NBC filter unit including said integral ventilation bypass and said air flow direction means is replaced as a single disposable unit.

7. An NBC filter unit as claimed in claim 2, wherein said internal shell further encapsulates: said secondary inlet compartment upstream said particulate filter; and said secondary outlet compartment downstream said gas adsorption filter.

8. An NBC filter unit as claimed in claim 7, wherein said air flow direction means comprises a peripheral gasket and seat combined with radial perforations located around said primary inlet compartment and radial perforations located substantially centrally at the secondary outlet compartment, and wherein selecting between said ventilation mode and said NBC filtration mode is performed by axially moving said internal shell in said casing, fully forwards or fully backwards respectively.

9. An NBC filter unit as claimed in claim 8, wherein said ventilation bypass is constructed as a peripheral gap located between said internal shell and said casing.

10. An NBC filter unit as claimed in claim 8, wherein moving said internal shell is performed by axially pushing or pulling at least one handle protruding through a slot made to said casing wall.

11. An NBC filter unit as claimed in claim 2, wherein said casing is axially movable in relation to said hollow member, sealingly passing, substantially centrally, through said secondary inlet compartment, said particulate filter, said gas adsorption filter and said secondary outlet compartment, said hollow member comprises said primary inlet compartment adjacent said inlet port, and said primary outlet compartment adjacent said outlet port, and wherein said air flow direction means comprises radial perforations made to said hollow member around said primary inlet compartment, radial perforations made to said hollow member around said primary outlet compartment, radial perforations made to an internal wall of said secondary outlet compartment, combined with a circular channel surrounding said hollow member.

12. An NBC filter unit as claimed in claim 11, wherein selection between said ventilation mode and said NBC filtration mode is performed by axially sliding said casing in relation to said hollow member, fully backwards or fully forwards respectively.

13. An NBC filter unit as claimed in claim 11, wherein said ventilation bypass is constructed as said radial perforations made to said fixed hollow member and said circular channel surrounding said hollow member.

14. An NBC filter unit as claimed in claim 7 wherein at least one of said casing and said shell is composed of two segments permanently joined to each other using a rim crimping process.

15. An NBC filter unit as claimed in claim 14, wherein said gas adsorption filter is composed of a packed layer of activated carbon granulates, said carbon granulate layer is

tightened by a perforated plate fitted on top of said carbon granulate layer.

16. An NBC filter unit as claimed in claim 15, wherein said perforated plate fitted on top of said carbon granulate layer is loaded by at least one spring fitted thereon to apply pressure on said perforated plate when said casing segments or said shell segments are joined.

17. An NBC filter unit as claimed in claim 1, wherein a pressure equalizing vent passage is provided between said ventilation bypass and said safe room space.