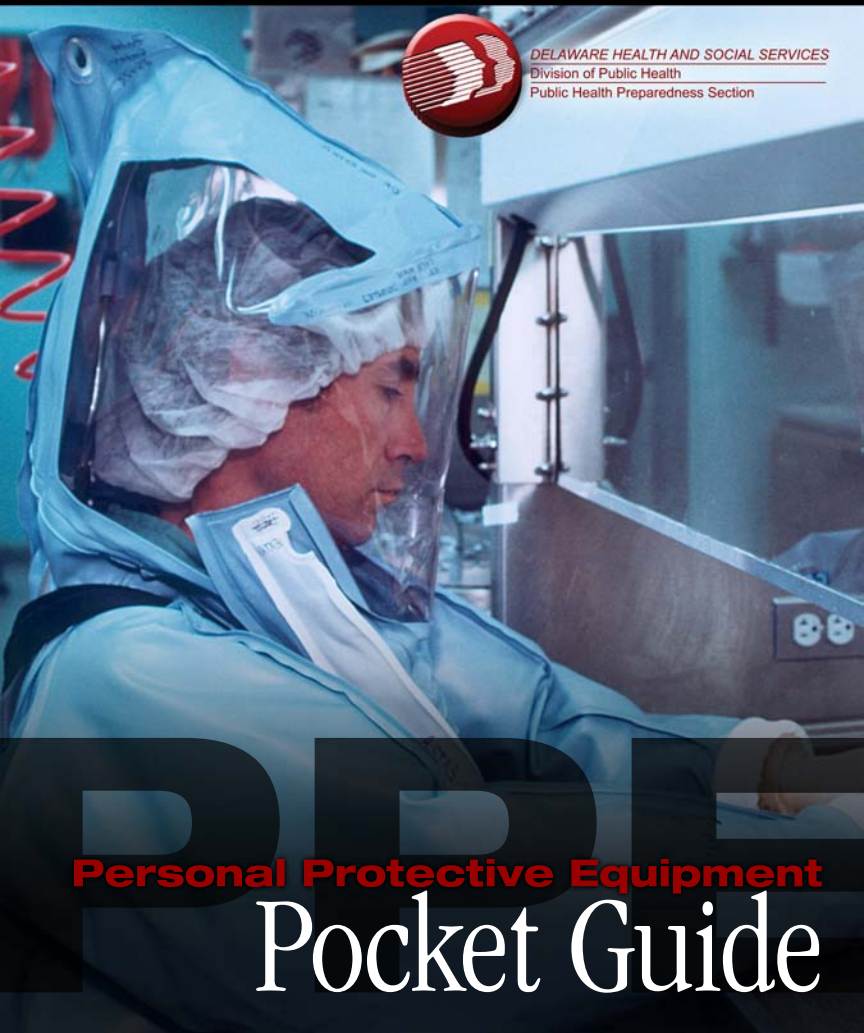




DELAWARE HEALTH AND SOCIAL SERVICES

Division of Public Health

Public Health Preparedness Section



Personal Protective Equipment

Pocket Guide

Purpose	2
PPE Levels	3
Contamination Zones	7
Agent Specific PPE Levels	8

The Division of Public Health (DPH) has developed this Personal Protective Equipment (PPE) Pocket Guide to help protect Delaware's emergency response community from exposure to potentially hazardous agents, including chemical, biological and radiological (CBR) agents. This guide includes PPE Levels, Contamination Zones, and Agent Specific PPE Level recommendations for emergency responders.

Emergency response personnel should adhere to their respective agency's pre-existing, hazard specific PPE plans (i.e., Fire Services, DNREC (HazMat)). This pocket guide is intended to be used in conjunction with the Division of Public Health's PPE and Respiratory Protection Program Standard Operating Guideline.

This pocket guide is intended to be used as a guide and does not replace sound judgment nor anticipates all situations, hazards or contingencies.

Level A: Personal Protective Equipment

Level A protection is required when the greatest potential for exposure to hazards exists and when the greatest level of skin, respiratory and eye protection is required. When the agent is “unknown”, Level A PPE will be worn unless otherwise determined by the Incident Commander based on the event. Level A protective equipment/clothing includes:

- Positive-pressure, full face piece self-contained breathing apparatus (SCBA) or positive pressure supplied air respirator (PAPR) with escape SCBA (NIOSH Approved)
- Totally encapsulated chemical and vapor-protective suit (impermeable material)
- Chemical resistant inner and outer gloves
- Disposable protective suit, gloves and boots. (depending on suit construction, may be worn over totally-encapsulating suit)



Level B: Personal Protective Equipment

Level B protection is required when the highest level of respiratory protection with a lower level of dermal (skin) protection is needed. Level B protective equipment/clothing includes:

- Positive-pressure, full face piece self-contained breathing apparatus (SCBA) or positive pressure supplied air respirator (PAPR) with escape SCBA (NIOSH Approved)
- Face shield
- Outer chemical resistant boots
- Under-clothing: Chemical resistant overalls and long-sleeved jacket or disposable chemical resistant coveralls
- Over-clothing: Hooded two-piece chemical splash suit or hooded chemical resistant clothing (coveralls) made of impermeable material
- Chemical resistant inner and outer gloves



Level C: Personal Protective Equipment

Level C protection is required when the concentration and type of airborne substance is known and the criteria for using air purifying respirators are met. Level C protective equipment/clothing includes:

- Full face or half mask air purifying respirator (APR) (NIOSH Approved) with appropriate cartridge
- Chemical resistant clothing: (Such as one piece coverall, hooded two piece chemical splash suit, chemical resistant hood and apron or disposable chemical resistant coveralls)
- Inner and outer chemical resistant gloves
- Escape mask (Optional)
- Chemical resistant boots (Disposable outer boots may also be worn)



Level D: Personal Protective Equipment

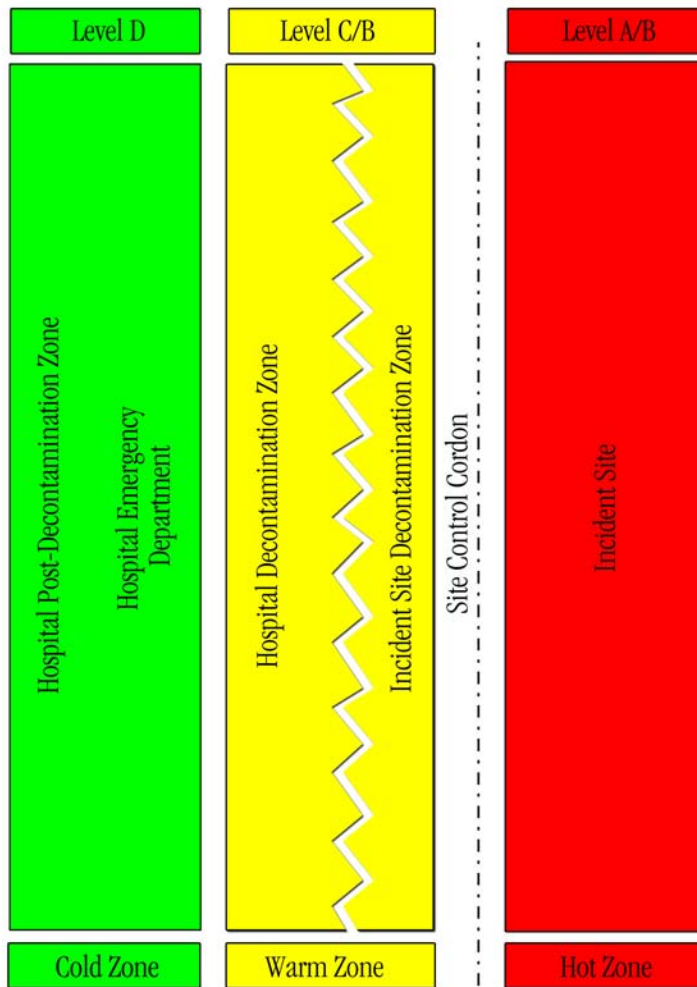
Level D PPE provides limited respiratory protection and minimal skin protection. This level may be sufficient when no contaminants are present, work operations preclude splashes, immersion, the potential for unexpected inhalation or contact with hazardous agents. Level D protective equipment/clothing includes:

- Standard work clothes (Such as coveralls, long sleeve shirt, trousers)
- Shoes or boots

Based on hazard exposure, PPE precautions may also include:

- Contact Precautions (CP):
Gloves, gown
- Droplet Precautions (DP):
Face shield or safety glasses, surgical mask, shoe covers, surgical cap, gloves, gown
- Airborne Precautions (AP):
N95 mask







Agent Specific PPE Levels

Biological	Decon Yes/No	Hot Zone	Warm Zone	Cold Zone
Unknown	Y	A	C	D/DP,AP
Anthrax	Y	B	C	D
Botulism (toxin)	Y	B	D/DP	D
Brucellosis	Y	B	D/DP,AP	D
Campylobacteriosis	N	D	D	D
Chagas Disease	N	D	D	D
Cholera	N	D	D	D
Cryptococcosis	N	D	D	D
Cryptosporidiosis	N	D	D	D
Cyclosporiasis	N	D	D	D
Cysticercosis	N	D	D	D
Dengue Fever	N	D	D	D
Diphtheria	N	D	D	D
Epsilon toxin	N	D	D	D
E. coli O157:H7	N	D	D	D
Glanders	Y	B	C	D/DP,AP
Hantavirus	N	B	D/DP,AP	D/DP,AP

• **CP** - Contact Precautions • **DP** - Droplet Precautions • **AP** - Airborne Precautions

Biological	Decon Yes/No	Hot Zone	Warm Zone	Cold Zone
Hendra Virus	N	B	D/DP,AP	D/DP,AP
Hepatitis A	N	D	D	D
Hepatitis B	N	D	D	D
Hepatitis C	N	D	D	D
Histoplasmosis	N	D	D	D
HIV/AIDS	N	D	D	D
Influenza	N	D	D	D
Legionnaires' Disease	N	D/DP,AP	D	D
Leptospirosis	N	D	D	D
Listeriosis	N	D	D	D
Lyme Disease	N	D	D	D
Mad Cow Disease	N	D	D	D
Malaria	N	D	D	D
Measles	N	D/DP,AP	D/DP,AP	D/DP,AP
Meningitis	N	D	D	D
Melioidosis	Y	B	D/DP,AP	D
Monkeypox	N	B	D/DP,AP	D/DP,AP

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Agent Specific PPE Levels

Biological	Decon Yes/No	Hot Zone	Warm Zone	Cold Zone
MRSA	N	D	D	D
Nipah Virus	N	B	D/DP,AP	D/DP,AP
Norovirus	N	D	D	D
Pertussis	N	D	D	D
Plague	Y	B	C	D/DP,AP
Polio	N	D	D	D
Psittacosis	Y	B	D/DP,AP	D
Q Fever	Y	B	D/DP,AP	D
Rabies	N	D	D	D
Ricin (toxin)	Y	B	C	D
Rift Valley Fever	N	D	D	D
Rotavirus	N	D	D	D
Salmonellosis	N	D	D	D
SARS	N	D/DP,AP	D/DP,AP	D/DP,AP
Shigella	N	D	D	D
Sleeping Sickness	N	D	D	D
Small Pox	N	B	D/DP,AP	D/DP,AP

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Biological	Decon Yes/No	Hot Zone	Warm Zone	Cold Zone
Staphylococcal enterotoxin B	Y	B	D/DP	D
Tuberculosis	N	D/DP,AP	D/DP,AP	D/DP,AP
Tularemia	Y	B	D/DP,AP	D
Typhoid Fever	N	D	D	D
Typhus Fever	Y	B	D/DP,AP	D
Valley Fever	N	D	D	D
Variant Creutzfeldt-Jakob Disease	N	D	D	D
Varicella Zoster Virus	N	B	D/DP,AP	D/DP,AP
Viral Encephalitis	N	B	D/DP,AP	D/DP,AP
Viral Hemorrhagic	N	B	D/DP,AP	D/DP,AP
VISANRSA	N	D	D	D
West Nile Virus	N	D	D	D
Yellow Fever	N	D	D	D

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Chemical	Decon Yes/No	Hot Zone	Warm Zone	Cold Zone
Unknown	Y	A	C	D
Ammonia	Y	A	C	D
Arsine	N	B	D	D
Benzene	Y	A	C	D
Chlorine	Y	A	C	D
Cyanide	Y	A	C	D
Hydrogen Fluoride	Y	A	C	D
Hydrogen Sulfide	Y	A	C	D
Mustard Gas	Y	A	B	D
Nerve Agents	Y	A	B	D
Phosgene	Y	A	C	D

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Radiological	Decon Yes/No	Hot Zone	Warm Zone	Cold Zone
Unknown	Y	A	C	D
Cobalt-60	Y	B	C	D
Strontium-90	Y	B	C	D
Iodine-125 or 131	Y	B	C	D
Cesium-137	Y	B	C	D
Iridium-192	Y	B	C	D
Uranium-235 or 238	Y	B	C	D
Plutonium-239	Y	B	C	D
Americium-241	Y	B	C	D

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