



# PERSONAL PROTECTIVE EQUIPMENT

## OBJECTIVE & STRATEGY



The objective of this section is to protect worker safety and health by giving guidance on selecting Personal Protective Equipment (PPE) to be worn during site entry by properly trained oil spill response workers. Safety is always the first objective of any response. Either of the following two documents supersedes this guidance:

- Incident-specific Site Safety Plan
- Oil Spill Response Organization safety procedures and training for employees/responders



The following are recommended PPE guidance for crude oil/petroleum spill cleanup operations.

Personal Protective Equipment is designed to protect workers from safety and health hazards, and to prevent injury resulting from incorrect use and/or malfunction of equipment. In general, the greater the level of risk, the greater the level of PPE required.

## TACTIC DESCRIPTION

### *Personal Protective Equipment includes:*



- Respiratory protection with respirators: Self Contained Breathing Apparatus (SCBA), air-purifying respirator
- Skin protection: full body covering including protective clothing with appropriate gloves and boots
- Eye protection with safety glasses, goggles, and/or face shields
- Head injury protection with a hard hat
- Thermal protection, as required, with cold weather clothing, including steel-toed footwear or arctic boots
- Hearing protection with earplugs or earmuffs



PPE is divided into four categories based on the level of personal protection afforded:

- **Level A** provides the greatest level of skin, respiratory and eye protection.
- **Level B** offers the highest level of respiratory protection but lesser level of skin protection (e.g., skin protection is required for exposure to liquids but not vapor).

# Personal Protective Equipment



- **Level C** is used when concentrations and types of airborne substances are known and the criteria for using air-purifying respirators are met.
- **Level D** consists of work clothing affording minimal protection, used for nuisance contamination only.

Most spill site workers will use Levels C and D.

## Personal Protective Equipment Categories

**Note:** \* indicates optional equipment.

### LEVEL A – HIGHEST LEVEL OF PROTECTION

- SCBA or positive-pressure, supplied-air respirator with escape SCBA
- Totally encapsulating chemical-protective suit with vapor barrier
- Coveralls\*
- Long underwear\*
- Gloves - outer, chemical resistant\*
- Gloves - inner, chemical resistant
- Boots - chemical resistant, steel toe and shank
- Boot covers\*
- Hard hat (under suit)\*
- Disposable protective suit, gloves, and boots (may be worn over or under encapsulating suit depending on suit design)
- Hearing protection\*



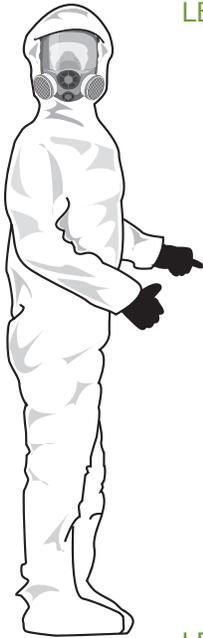
### LEVEL B

- SCBA or positive-pressure, supplied-air respirator with escape SCBA
- Hooded chemical-resistant clothing (overalls and long-sleeved jacket coveralls; one- or two-piece chemical splash suit; disposable chemical-resistant overalls). May also be encapsulating.
- Coveralls\*
- Gloves - outer, chemical resistant
- Gloves - inner, chemical resistant
- Boots- chemical resistant, steel toe and shank
- Boot covers\*
- Hard hat\*
- Face shield\*
- Hearing protection\*
- Personal Flotation Device (PFD)\*





# Personal Protective Equipment



## LEVEL C

- Full-face or half-face mask air-purifying respirators with appropriate cartridges
- Chemical-resistant clothing (coveralls; two-piece chemical-splash suit; disposable chemical-resistant overalls.)
- Coveralls\*
- Gloves - outer, chemical resistant
- Gloves - inner, chemical resistant
- Boots - steel toe and shank as appropriate to spilled product
- Boot covers\*
- Hard hat\*
- Face shield\*
- Hearing protection\*
- Personal Flotation Device (PFD)\*

## LEVEL D – LOWEST LEVEL OF PROTECTION

- Coveralls
- Gloves\*
- Boots/shoes - steel toe and shank as appropriate to spilled product
- Boot covers\*
- Safety glasses or chemical splash goggles
- Hard hat
- Hearing protection\*
- Face shield\*
- Personal Flotation Device (PFD)\*



## DEPLOYMENT CONSIDERATIONS AND LIMITATIONS

- Maintaining adequate supplies of PPE is often a logistical challenge; Team Leaders should provide the Supply Unit with anticipated PPE needs in advance and on a regular basis.
- Respiratory protection should only be worn by responders operating under respirator operating procedures (i.e., regular training, fit-testing, medical monitoring, inspection, cleaning, storage and periodic program evaluations) as required by OSHA 29 CFR 1910.134.

# Personal Protective Equipment



## REFERENCES TO OTHER TACTICS

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-  • SITE ENTRY CRITERIA
-  • SITE LAYOUT & CONTROL
-  • PERSONNEL DECONTAMINATION

