



PPE Recommendations for County Agricultural Commissioner and Department of Pesticide Regulation Staff When Entering a Potentially Pesticide-Contaminated Cannabis Grow Site

Depending on the potential exposure to pesticides anticipated, the following PPE should be available for personnel entering a cannabis cultivation site suspected of illegal pesticide use, including registered and unregistered materials:

- Eye protection [ANSI Z87-approved] as defined in Title 3 CCR § 6738.2
- Gloves of a minimum 6 mil thickness made from any of the following materials: butyl rubber, nitrile, neoprene [unless potential exposure to unknown liquid for greater than 10 seconds, in which case only laminate or 14 mil Viton is acceptable]. If the pesticide is a well-known registered material, follow glove recommendations on label, once again using a minimal glove thickness of 6 mils (1 mil = one thousandth of an inch).
- Closed toed boots/shoes, preferably waterproof with safety toe protection
- Work clothing (as defined in Title 3 CCR § 6000), unless contact with foliage is anticipated, then coveralls (cotton or synthetic) over work clothing (especially if the foliage appears wet or covered in dust/powder)
- Bump cap (or hard hat if potential for objects falling from height)
- Hearing protection if in an environment with loud noises present (>90 dB: power tools, heavy equipment in operation nearby, or difficult to understand someone speaking a few feet away)
- For voluntary use in non-toxic environments, particulate respirators (filtering facepieces) can also be nuisance level organic vapor filtering. Environments with pesticide-contaminated atmospheres should be entered by fitted and trained personnel using the proper elastomeric respirator with appropriate cartridges. **Atmospheres that are immediately dangerous to life or health (IDLH), or those with unknown atmospheric hazards, should not be entered by DPR/CAC personnel and should be dealt with by trained HAZMAT personnel.**

If entry into a room filled with hazardous material (e.g. smoke from combusted pesticide/wood particulate mix; “burn can”) is necessary and respiratory protection is unavailable, the room should be ventilated to at least 10 complete air exchanges*. Ideally a push/pull configuration (fans blowing into the room and fans stationed opposite to exhaust air out of the room). If there are no obvious “exit points” [doors, windows] for a push/pull set up, a fan can be placed at the entry point, extracting air from the room and using structural air leakage and/or facility ventilation system to provide make-up air. If a ventilation system is present, it should be set to provide general ventilation (and thus make-up air) with outside air. Without make-up air, ventilation may be a long process. Make sure area around any fan exhaust is clear of people and animals. Fans for this use should be rated for at least 2000 cubic feet per minute (CFM) (“fumigators” fan).

Most insecticides and fungicides have relatively low vapor pressures ($<10^{-4}$ torr). One major exception is the organophosphate pesticide dichlorvos (DDVP, “No Pest Strips”). If these are found in the facility (yellowish plastic rectangle encased in a perforated plastic shell, see below photo) they should be collected (gloved hands) and placed in a plastic trash bag or 5-gallon plastic bucket, sealed and removed from the interior of the facility.



Photo: DDVP Strip

Because of the low vapor pressure of most active ingredients, it is unlikely that there will be an appreciable amount in the air, unless immediately after a spray or burn application. Odors detected may be other components (“Inert Ingredients,” or “Other Ingredients”) of the pesticide formulation. These include surfactants, emulsifiers, stabilizers, odor mask, solvents, spreader/stickers, etc. These can be hazardous on their own.

Avoid contact with walls and growing platforms that may be contaminated by off-target applications of pesticides, both registered and unregistered, and by pyrolyzed residue from a burn can.

Contact with foliage should be with gloved hands.

If opening a suspect container, PPE equivalent to a Category One (Danger/POISON) pesticide, including respiratory protection (organic vapor cartridges) should be worn, in case non-compatible chemicals have been mixed in the container, potentially pressurizing it.

For further guidance on proper procedures and PPE when dealing with potentially contaminated cannabis grow structures, please contact the Worker Health and Safety Branch, Industrial Hygiene Services via the branch's general phone number at 916-445-4222.

When in doubt, maximize your PPE

It is important to recognize that the anticipated potential exposure level can change and that PPE should be adjusted accordingly. Higher levels of PPE may be necessary to protect staff from exposure to other hazards that may also be present at cannabis cultivation sites. These recommendations cover examples of potential exposures but are not intended to prescribe PPE for every potential exposure scenario or discuss all PPE options. Follow all applicable pesticide label directions or other applicable legal requirements.

*Time required for 10 air exchanges = [volume of room divided by CFM] times 10. See Title 3 CCR § 6769. *Enclosed Space Ventilation Criteria*.