



NATIONAL WILDFIRE COORDINATING GROUP



Equipment Technology Committee & Risk Management Committee

Frequently Asked Questions (FAQ) about new information on the decontamination of wildland fire clothing and how to implement recommendations from ETC Safety Bulletin 25-001: Laundering to Decontaminate Wildland Fire Clothing (www.nwcg.gov/nwcg-alerts).

Are hazardous chemicals from contaminated wildland fire clothing transferred to my body?

The transfer and absorption of contaminants from wildland fire FR clothing to the body is currently unknown. Washing clothing to remove contaminants is a practical precaution that is expected to reduce exposure. If laundering facilities are not available, changing into clean sets of FR clothing may also reduce exposure. It is not known how exposure risk from contaminants on clothing compares to inhalation and dermal exposures. Additional research is needed to assess the relative risks.

Should I purchase a washing machine and dryer for my station?

Yes. The Occupational Safety and Health Administration Personal Protective Equipment Standard (29 CFR 1910.132) requires that PPE “shall be provided, used, and maintained in a sanitary and reliable condition” by employers. FR clothing is required PPE and necessitates decontamination to remain effective and sanitary. This new information should provide justification for employers to employ best management practices to launder clothing separately and to purchase and install laundry units to be used by fire personnel at work (within budget direction and constraints).

Do I need a special washing machine or detergent?

No. A standard washing machine (front or top loader without an agitator) has been identified to be as effective as a commercial extractor (commonly used for structure fire turnout gear) for removing the chemical contaminants of concern to below measurable limits. Common household laundry detergents are sufficient. However, for heavily soiled clothing or specific areas (like cuffs and collars) a soak in a degreaser will help remove the heavy soiling.

Are there any special washing instructions?

Yes. Washing machines should be set to the hot water setting and the machine should not be overloaded. Avoid warm and cold temperature settings because they were less effective at removing the chemicals measured. Additional care and maintenance information is located on an inner clothing label or available from the manufacturer.

Why do I need to separately wash my contaminated wildland fire clothing?

It is recommended to wash separately to reduce the potential for cross contamination of chemicals to other clothing not worn in the fire environment. Manufacturers also recommend washing FR clothing separately from socks and undergarments to prevent lint from flammable fibers from other clothing from getting on the FR clothing.

Can my dirty wildland fire clothing contaminate other items or the environment?

If soiled with hazardous chemicals, wildland firefighter clothing should not be stored with personal items or clean clothing. It is advised to store contaminated wildland fire clothing in a separate closed container or sealed plastic bag to minimize contaminating other items or off-gassing volatile organic chemicals that can be released into the ambient air.

Will washing my contaminated dirty wildland fire clothing at home or in a public laundry facility contaminate the washing machine?

Currently, there is no available evidence of contaminants from wildland fire clothing remaining in washing machines and contaminating subsequent loads of laundry. However, as a precaution, it is recommended to run an empty wash cycle to clean the machine after washing contaminated wildland fire clothing if using a home or public washing machine is the only option. This question has been raised for potential further research.

How can these recommendations be implemented on a wildfire incident? Current contract specifications for mobile laundry units at wildfire incidents include washing with hot water and separately washing FR clothing. We recognize there is limited capacity to launder clothing on all incidents. NWCG ETC and RMC are exploring options to increase capacity and decrease turnaround time of laundering services. Firefighters should bring extra sets of FR clothing to wear for assignments as practicable.

Can I exchange my contaminated FR clothing at the Supply Unit on IMT fires? Supply units for large fires are stocked to replace damaged clothing from the incident. Firefighters should bring extra sets of pants and shirts to use for their assignment and launder contaminated clothing when time allows or when they return to their home unit.

Will more frequent laundering reduce the lifespan of FR clothing? Following the manufacturer's instructions about garment care should not significantly reduce the lifespan of FR clothing. There is little information about the fire resistive effectiveness of cache issued FR clothing over the lifetime of the garments.