



Just the Facts... **Solid Waste Burning (Trash and Feces Fires) - Individual**

GENERAL INFORMATION	<p>Solid and liquid wastes produced under field conditions can amount to as much as one hundred pounds per soldier per day! A camp or bivouac area without proper waste disposal methods can soon become an ideal breeding area for flies, rats, and other vermin. These conditions may result in the development and spread of disease among soldiers.</p> <p>There are several Army-approved methods that can be used to dispose of human and solid wastes. Chemical latrines are the preferred human waste disposal devices for use during field exercises or missions. When chemical latrines are not available, individuals and units must use other methods. Human wastes can be buried or burned. The burn-out latrine may be used when the soil is hard, rocky, or frozen, making it difficult to dig a deep pit latrine. It is also particularly suitable in areas with high water tables because digging a deep pit is impossible. Burial of garbage and rubbish is almost always the best method of disposal. It is the preferred, and most frequently selected method. When burial is not possible, the combustible solid waste can be burned.</p> <p>The selection of the Army-approved disposal method is based on many factors including the mission, length of stay in the area, terrain, weather conditions, and, when applicable, local regulations. Open burning of wastes is not desirable when wind and other conditions cause the smoke plume to remain close to the ground and in the direction of personnel.</p> <p>One of the most important hazards associated with the open burning of human and other solid wastes comes from the fuel that is used to ignite and help burn the wastes. Highly flammable fuels, such as gasoline, should not be used! JP-8 can be used for this application when the general precautions for its handling are followed.</p>
ROUTINE EXPOSURES IN THE DEPLOYED SETTING	<p>Changing environmental conditions may cause a smoke plume to change directions or settle toward the ground. Under these circumstances, personnel may become exposed to varying amounts of smoke.</p>
PERSONAL PROTECTIVE EQUIPMENT (PPE) and COUNTERMEASURES AVAILABLE FOR DEPLOYED PERSONNEL	<p>Personnel involved in igniting and maintaining the burning material should be appropriately protected from the fire and the heat.</p> <p>Adjacent personnel in the path of the smoke plume should be relocated, if possible, or actions should be taken to reduce their exposure.</p>
SIGNS AND SYMPTOMS OF ACUTE AND CHRONIC EXPOSURE	<p>Smoke can irritate the eyes, breathing passages, or lungs. Temporary irritation of the eyes and membranes of the nose, throat, and breathing passages may occur. Eyes burning and a temporary cough may occur. The personnel performing the burning operation will have the greatest exposure and the highest chance of experiencing these effects. Most other personnel, including those located adjacent to the burning operation, will not be exposed to levels of air pollutants that will cause any harmful health effects.</p> <p>It is unlikely that smoke exposure under these circumstances will result in any continuing health problems.</p>

<p>REVERSIBILITY OF ACUTE AND CHRONIC EFFECTS</p>	<p>Smoke exposures of personnel located close to the fire source (within 30m), may result in mild signs and symptoms that quickly go away. With this type of exposure, there should be no chronic effects.</p> <p>In general, any medical condition that does not improve over a few days should be evaluated by a healthcare provider.</p>
<p>TREATMENT REQUIRED/AVAILABLE FOR EXPOSURE</p>	<p>Avoiding the inhalation of smoke is the best medical option. When operationally possible, troop locations for work or bivouac should be selected that are not in a smoke plume. Locate, or relocate, upwind, from a smoke plume, if it is operationally possible. Take efforts to avoid or minimize smoke inhalation by closing openings to areas outside an enclosed space by shutting windows and closing tent flaps.</p> <p>Eye, nose, and throat, irritation from the smoke of burning trash and sanitary wastes should not last more than several minutes to perhaps a couple of hours after the exposure is stopped. If coughing persists, or if eye irritation remains after rinsing your eyes with water, you should be examined by medical personnel. Based upon your exposure conditions and medical assessment, specific medical recommendations for your short- and long-term follow-up will be provided.</p>
<p>LONG TERM MEDICAL SURVEILLANCE REQUIREMENTS OF HEALTH EFFECTS MONITORING</p>	<p>Medical follow-up is not necessary for routine exposure to smoke from the burning of solid wastes.</p>
<p>SPECIAL RISK COMMUNICATION INFORMATION</p>	<p>Many pollutant chemicals are produced during burning processes. There has been special interest paid by the US Environmental Pollution Agency to one group of pollutants commonly called "dioxins". Dioxins are produced in almost all burning processes--even in the household burning of leaves or paper. This is a very toxic group of chemicals, but they are produced in extremely small amounts in fires. There are also other pollutants formed that may be harmful to health.</p> <p>The amount of a pollutant to which a person is exposed is the most important factor in causing health effects. The amount, also called the "dose", depends on both the concentration of the pollutant in the air, as well as, how long the exposure lasts. The dose can be scientifically measured and the exposure can be evaluated. Administrative actions can be used to limit exposure duration. If exposure time is limited, the amount of the air pollutants that one is exposed to will also be limited. Although you may have been exposed to air pollutants, the dose may not result in any temporary or permanent health effects.</p> <p>Personnel directly involved in, or located very close to (within 30 meters) the burning operation, have a much greater potential to be exposed to significant amounts of air pollutants. These personnel should practice good personal hygiene and be aware of the risks presented by the fuel used to burn the wastes.</p>