

Appendix G

In 2003 the New Generation Fire Shelter began replacing the older style Fire Shelters currently in service.

The older style Fire Shelters are not obsolete, but should be retired and replaced as funds for purchasing the New Generation Fire Shelters become available.

The following information concerns the old style Fire Shelter:

1. This shelter is not obsolete, but still provides protection when used properly.
2. Periodic inspection is still very necessary, with replacement when the Fire Shelter shows excessive wear.
3. If the Fire Shelter does not have a Red Strip running from pull ring to pull ring, the tear strip should be partially pulled to ensure the shelter polyvinyl bag will open quickly in the event of an emergency.
4. The recall originally done to correct the polyvinyl bag has been completed, if bags without a red pull strip are found, they should be immediately retired and replaced as soon as possible by New Generation Fire Shelters.

The following information concerns the New Generation Fire Shelters:

1. The inspection of the New Generation Fire Shelters is similar to the inspection done on the old style Fire Shelter. Any significant tears or holes in the polyvinyl bag, or obvious damage to the shelter means the shelter needs to be replaced.
2. Due to the cost of the New Generation Fire Shelter, we recommend that shelters that have the polyvinyl bag significantly damaged to the point the shelter is exposed or susceptible to damage should be set aside in a secure long term storage area and not destroyed, the shelter should not be removed from the protection the bag is still providing. When sufficient numbers of these shelters have been accumulated, efforts will be made to have them rebagged economically.

National Interagency Fire Center
3833 S. Development Avenue
Boise, Idaho 83705

United States
Department of Agriculture

Forest Service

File Code: 5160 Route To:

NIFC

Date: June 27, 1996

Subject: Fire Shelter Safety Alert

To: All Fire Directors,
NIFC Directors, All Cooperators

After a recent fire entrapment, the investigators discovered that a fire shelter had been used that should have been taken out of service sometime ago. To ensure the maximum safety of firefighters carrying fire shelters, the fire shelters must be inspected and then either removed or kept based on the criteria given below:

Shelters that **SHOULD NO LONGER BE IN SERVICE** are those manufactured before 1978 and these specific contracts:

Contract no.	Name	Year	Reason
GS-08S-33902	Norair Lanes	1978	Toxic
GS-08S-34122	Norair Lanes	1979	Toxic
GS-08S-35119	Metro Plastics	1980	Toxic
GS-08S-35188	Metro Plastics	1981	Brittle
GS-08S-36256	Cecile	'82-'83	Brittle

TOXIC SHELTERS MUST BE DESTROYED IMMEDIATELY. Other shelters may be kept for training purposes.

As of 1996, the only fire shelters that are acceptable are manufactured by Anchor Industries under various contract numbers from 1983 to 1996 and shelters manufactured by Weckworth/Langdon in 1995. All fire shelters manufactured since 1995 are marked as compliant with NFPA 1977. **DO NOT PURCHASE ANY NEW FIRE SHELTERS THAT ARE NOT NFPA 1977 COMPLIANT.**

MTDC has inspected hundreds of fire shelters that were used in entrapments. At least 30 percent of the fire shelters showed damage that was visible through the clear plastic cases. This indicates a widespread failure to inspect the fire shelters at least every 14 days. Some firefighters have expressed the attitude that they were aware of the defects, but felt they would never have to use the shelter, so why bother to replace it. This is an unacceptable risk.

Fire shelter case liners will at least double the life of fire shelters, but at some point the shelters will become unserviceable. Inspections should continue at 14-day intervals. Pay particular attention to the fire shelter area at the open end of the liner. Each individual is responsible for inspecting his or her fire shelter. However, crew supervisors should routinely spot-check shelters to ensure only functional shelters are being carried.

If there are any questions concerning specific fire shelters or the above information, contact Ted Putnam, Fire Shelter Project Leader at the Missoula Technology Development Center (406) 329-3965. DG is T.Putnam:ROIA.

/S/ John B. Roberts

JOHN B. ROBERTS
Branch Chief, Fire Equipment & Chemicals

Inspection

The shelter has an indefinite shelf life because its materials do not degrade in normal fire-cache storage. Nevertheless, all shelters should be inspected when they are issued and every 14 days during the fire season. Only serviceable fire shelters should be taken to the fireline. Don't assume that a new carrying case contains a new shelter. Shelters with the oldest manufacture dates should be issued first.

Inspect the carrying case, liner, vinyl bag, and shelter. Do not open the vinyl bag. All opened shelters should be removed from service.

1. Check the vinyl plastic bag to ensure that the quick-opening strip is unbroken and the two red pull rings are intact. If any item is broken, remove the shelter from service (Figure 24).
2. Abrasion is the most common shelter damage. It can be spotted through the vinyl bag. Typically, the aluminum foil is rubbed from the fiberglass cloth on the outer surface or the outside edges of the shelter. Remove the shelter from service if you see extensive edge abrasion, if aluminum particles have turned the clear vinyl bag dark gray or black, or if debris is in the bottom of the bag. All of these problems are signs of serious abrasion.
3. Look for tears along folded edges. Tears are most likely to occur at the top end of the shelter where all the sharp edges come together above the liner. Damage is less common along the wider folds. Remove shelters from service when tears are longer than 0.25 inches. Many cracks and pinholes occur in the shelter fabric during manufacture, particularly when the shelter is sewn and folded. Holes the size of a dime or smaller do not impair the shelter's ability to reflect radiant heat. If holes are larger than a dime, remove the shelter from service.



Figure 24—Frequent inspection keeps damaged shelters off the fireline.

Appendix G

Shelters that have been removed from service make excellent training aids, but should be clearly marked “For Training Only” so they do not reach the fireline.

Care of the Fire Shelter

Firefighting is rough on equipment, so the fire shelter is expected to have a limited service life. A little care can extend that life—even on the fireline.

The shelter is an important piece of protective equipment. Treat it accordingly:

- Keep your shelter away from sharp objects that may puncture it.
- Do not load heavy objects on top of the shelter.
- Avoid rough handling.
- Do not crush the shelter when leaning against objects.
- Do not sit on the shelter or use it as a pillow.
- Always keep the shelter in its hard plastic liner.

Practice Fire Shelters

Practice fire shelters are made from blue plastic and are designed to be reused many times. The carrying case and liner are identical to the standard case except that the practice shelter’s carrying case is orange. Never mix practice and real fire shelter components. Sooner or later someone could end up carrying a practice fire shelter onto the fireline. This is another reason to inspect your fire shelter when you first receive it.