Changing Hazards of Residential Fires

Olympia – The Washington State Fire Marshal’s Office advises residents that home furnishings have changed over the last few decades from natural materials to synthetic materials. Synthetic fabrics, padding, glues, and resins in newer furnishings burn hotter, faster, and produce more toxic gases and smoke than natural materials.

Studies have shown that room fires with older, natural materials get hot enough to reach “flashover” (the point when all of the materials in the room ignite) in about 30-45 minutes. Whereas newer synthetic materials reach flashover much quicker, in about four to eight minutes.

Additionally, when natural materials burn, the smoke includes hydrogen, carbon, and carbon monoxide. When synthetic materials burn, additional toxic gases including benzene, formaldehyde, and hydrogen cyanide are created.

This means that it is now more important than ever for families to respond and escape quickly in the event of a fire.

- Residents should be sure that their home has operable smoke alarms installed in every bedroom and in the hallways on each floor of the home.
- Plan and practice a home fire escape plan. Be sure everyone has two ways out of each room.
- Check doors for heat before opening them. If the door is hot, use another way out.
- In a fire emergency get outside immediately, and never go back inside the home.
• Smoke is poisonous. Stay low and get outside immediately. Never go back inside.
• Gather at a designated meeting place and call 911.

For more information, contact the State Fire Marshal’s Office at (360) 596-3929.

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