NAVAL SAFETY COMMAND
SAFETY AWARENESS DISPATCH SA 26-24

Afloat Laundry Fires

Earlier this year, we released Safety Awareness Dispatch 26-05 on preventing shipboard fires. Despite sustained efforts to raise awareness, another area of concern reminds us of the daily hazards we face – laundry fires. Mishaps centering around laundry spaces continue to be reported across naval ships and shore facilities, damaging military equipment, adding increased risk to personnel and impacting mission readiness. Shipboard fires are inherently dangerous and can spread and destroy far beyond the initial combustion point.

Preventing fires everywhere — even in spaces that might not traditionally be viewed as high-risk, such as a laundry room, protects lives, preserves mission readiness and protects critical equipment (yes, washers and dryers are critical to the mission effort) as well as military infrastructure (barracks, ships, warehouses and training areas).


File photo, not associated with mishap

Spin Cycle of Doom.

During routine shipboard operations, personnel noticed fire and smoke coming from one of the washers. The response team secured power, extinguished the flames and set a reflash watch in case flames reignited. (*Great job knowing and following the procedures!*) An investigation confirmed Washer #2's motor overheated causing it to burst into flames. Further investigation noted Washer #1 was out of commission, which left Washer #2 to shoulder the entire workload. – *Apparently, the person loading Washer #2 prior to the fire was unaware of the weight limitations for running a wash cycle and overloaded the machine. This caused the motor to overheat, creating a fire and leaving the ship down yet another washer until repairs could be completed. It's always better to ask for help if you're unsure of job requirements - laundry or otherwise. Managers: ensure your team understands how to properly use the tools and equipment involved in a job and feels empowered to ask questions, so they get the information needed to do the job right. Every task requires proper training to avoid negatively impacting the mission. Open communication - up, down and sideways - is key.*

Pocket Roulette.

In another ship's laundry space, a fire was reported in a dryer. The response team brought it under control using CO2 bottles and buckets of water. Investigators determined a steam solenoid valve failed to close, allowing steam to continually enter the dryer drum and raise the temperature well beyond normal operating limits. Plastic wrappers and pieces of paper were found mixed with the clothes along with a greasy substance inside the dryer drum, ultimately resulting in a class Alpha fire from igniting a pair of jeans. – *While equipment failure triggered this mishap, checking pockets to remove all loose debris BEFORE putting clothes into the laundry bag would have removed one critical link in the mishap chain. On a positive note, the quick response kept things under control. But … laundry is not just a routine task. Like every responsibility in the Navy or Marine Corps, it requires strict adherence to procedures, continuous awareness, and disciplined execution. Take training seriously, stay alert, and adapt quickly when emergencies arise.*

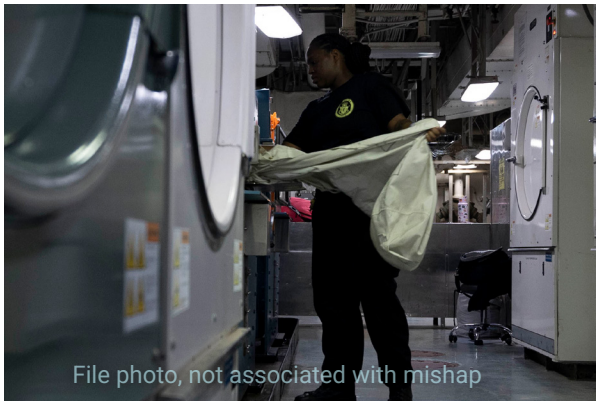
The Lint That Lit.

While checking the contents of the dryer, a service member noticed smoke and small flames. After snuffing the fire with a CO2 extinguisher, responders determined a clogged secondary filter had become caked with lint. (*Secondary filter? How many of us forget to check the primary one when doing laundry at home?*) The good news … the fire was quickly put out and the supply department updated primary and secondary lint trap cleaning procedures, placed informational placards in conspicuous locations, and conducted crew training on the incident to get everyone on the same page to prevent future occurrences. – *Understanding the risks inherent to the process reinforces the vigilance needed to prevent mishaps in the first place. Proactive safety (i.e., mindset/culture) and routine maintenance (i.e., technical requirements) eliminate hazards BEFORE they become emergencies.*

Silent Smolder.

After drying a load of microfiber rags a servicemember pulled them straight from the dryer and immediately packed them tightly into a laundry bag, cinched the drawstring and set the bag aside to continue working. Nearly an hour and a half later, smoke and a strong acrid odor started filling the compartment. Following the proper fire notification, the servicemember discovered the fire wasn't coming from any machine but instead originated from inside the tightly packed bag of microfiber rags. The fire was quickly extinguished, followed by emergency ventilation and post-fire procedures. – *The potential for spontaneous combustion is a risk that went unrecognized and contributed to this incident. To mitigate spontaneous combustion, the Naval Ships' Technical Manual Chapter 655 (Laundry and Dry Cleaning) enforces strict operational parameters that include: maximum temp not to exceed 185°F, routine checks to ensure temps never*

exceed 200°F, and use of the dryer's cooldown cycle to bring clothes to 135°F or less. If a dryer doesn't automatically cool down or complete its 10-minute manual cooldown, personnel should secure the machine immediately and notify the space supervisor. The list is not all inclusive. Be aware of spontaneous combustion.


File photo, not associated with mishap

Back to Basics.

During operational testing of shipboard laundry equipment, inspectors heard a popping sound, smelled melting plastic and saw white smoke coming from behind the #2 Dryer. Responders traced the smoke back to the motor controller of the actual source - Dryer #3 - where a faulty transformer had caught fire. What makes this case worthy of a dispatch isn't the fire itself, but three critical factors during the emergency response: (1) The supply department secured ventilation and set boundaries but stopped short of completing all immediate actions including conducting the CO2 agent testing. (2) The initial CO2 agent test failed due to responder unfamiliarity with the pre-2015 CO2 bottle on hand, which required activating dual handles (*both top and bottom*) rather than the single top handle found on newer models. (3) Poor integration and communication between the flying squad and the In-port Emergency Team led to confusion over which watchstanders were taking immediate actions. – *Damage control readiness demands rigorous, full-sequence drills. Realistic scenarios that execute every procedural step can expose critical gaps in procedural compliance and clarify the division of responsibilities between response teams. Train how you fight.*

Compromised Layers.

A shipboard fire ignited after hot, freshly dried clothing spontaneously combusted in a poorly ventilated stowage space. The clothing was tightly packed into a laundry bag and stored alongside others immediately after drying, trapping residual thermal energy. Compounding the hazard, two ventilation fans that normally supplied fresh cooling air were tagged out, preventing the proper amount of cooling air from entering the space. Meanwhile, working exhaust fans created an unbalanced airflow, drawing smoke-mixed air out of the space before it could reach the installed fire/smoke sensors, allowing the laundry to smolder undetected for hours. When smoke finally triggered the alarm system, confusing panel indications combined with chronic alarm fatigue from a history of false alarms delayed the response team long enough for the fire to intensify and spread to adjacent compartments before being contained and extinguished. – *A resilient risk control system relies on defense-in-depth, where overlapping safeguards prevent failure: operators understanding procedural risks, ventilation systems working as designed, monitor and control systems providing reliable indications, and emergency teams that are trained and proficient with equipment and tactics. In this incident, multiple layers of defense were compromised, yet this team prevailed and prevented further loss through critical thinking, a questioning attitude, and adaptable firefighting execution when the situation was unscripted. Know your job and risks well enough to be adaptable and flexible when the situation demands it.*

Key Takeaways

Any unintentional fire is a serious threat to readiness. When prevention fails, the priority shifts to minimizing response time and effectively fighting the fire to prevent catastrophic loss. Maintaining vigilance in known high-risk areas ensures maximum protection of personnel and resources.

- Follow safety guidelines (Compliance). Knowing and applying established fire safety protocols is always the first line of defense in preventing mishaps.

- Follow equipment operating procedures. Weight limitations and the requirement to run cool down cycles are there for a reason. They are not optional. Use them.

- Ventilation systems serve multiple purposes. Know the capabilities and limitations of your ventilation systems. If any components are down, ensure adequate temporary ventilation and mitigations are in place.

- Know your equipment. True readiness means knowing not only where fire extinguishers are located but how to operate them at a moment's notice under pressure. The key to responding to any fire bears repeating, "rapid, immediate and overwhelming action to contain and extinguish any shipboard or shore fires."

- Communicate clearly. Safety is everyone's responsibility. Personnel at every level must report potential hazards immediately - never assume someone else "got the alarm." (This includes knowing how much fits in a washer without overloading it.) Ensure critical safety information flows effectively up and down the chain of command and verify clear warning signs and notices are posted across workspaces.

And remember, "Let's be careful out there"