Fires Caused by Electronic Device Chargers

BSEE is aware of multiple fires related to the charging of personal electronic devices, such as tablets and cell phones, in living quarters on offshore facilities. These fires include the following specific incidents:

March 2016: A drillship’s fire alarm sounded due to a fire reported in the living quarters. Crews mustered at their primary muster stations, and fire teams were deployed to extinguish the fire. The initial response with fire extinguishers did not smother the fire, so a fire hose was required to completely extinguish the fire. Although the source of the fire was classified as “undetermined,” findings suggested a wall mounted fluorescent light for marine use with receptacle, a universal adapter plugged into the light fixture, a phone charger plugged into the adapter, and/or a tablet left under the bunk pillow may have started the fire. Damage as a result of the fire was estimated at $50,000. No personnel were present at the time of the fire, and no injuries resulted from the incident.

March 2018: A fire occurred in temporary living quarters after a contractor left a cell phone charging on his mattress while at work for the day. The charger wire apparently failed, creating enough heat to ignite the bed sheet and mattress (see photo, above left). The fire team responded to the area and quickly extinguished the flames. No personnel were present at the time of the fire, and no injuries resulted from the incident.

May 2018: Black soot was noticed above the entry door of rented living quarters. After power was isolated, personnel entered the building and found heat damage to the ceiling and lights, as well as multiple charred mattresses. A possible cause
of the fire was a tablet being charged on a bottom bunk hanging night stand (see photo, above right). The tablet and electrical receptacle were badly charred. No personnel were present at the time of the fire, and no injuries resulted from the incident.

Therefore, BSEE recommends that operators consider the following options:

- Charger cords for all electronic devices should be in good working condition (with no exposed wiring) prior to being brought offshore.
- Charging devices should not be left on surfaces that are potentially flammable or that can promote heat buildup.
- Avoid leaving charging cables or portable electronic devices on bedding.
- Do not leave unattended devices connected to outlets found on lights in bunks.
- Remove electronic devices from chargers and outlets once fully charged.
- Include information about the hazards of charging portable devices during facility orientations and post relevant signage in living quarters.
- It is recommended that outlets be replaced with a ground fault circuit interrupter (GFCI) outlets wherever possible.
- It is recommended that all cords and receptacles be labeled with a National Recognized Testing Laboratory (NRTL) indication (e.g., UL, FM, CSA) before use.*

*For example, The UL Listing Mark on a product means that UL has tested and evaluated representative samples of that product and determined that they meet the requirements of UL standards for safety (fire propagation, shock, etc.).