



## Alaska Small Passenger Vessel Safety Alert No. 01-2003

### Explosion and Fire Following the Fueling of a Gasoline Powered Passenger Vessel

**Background:** Safety Alerts are meant to provide timely safety-related information to mariners of “Lessons Learned” from marine casualties. The information provided is part of an ongoing effort to apply Prevention Through People (PTP) principles to improve maritime safety.

**Incident:** The master of a 30-foot passenger vessel started the gasoline engines after refueling and experienced an explosion and fire. The vessel did not have passengers aboard during the incident and none of the crew were seriously injured. The master was able to extinguish the fire using a portable dry chemical extinguisher. The master of the vessel ran the blowers for 3-4 minutes prior to starting the engines. Additionally, the installed fume detector gave no indication of excess fumes in the engine compartment.

**Lessons Learned:** The Coast Guard investigation identified several lessons learned from this incident.

1. After refueling operations, in addition to running the powered ventilation blowers always open the engine compartment and give a visual examination of the space.
2. Examine safety equipment frequently because failure of such equipment can give mariners a false sense of security.
3. Be very cognizant to ensure spilled fuel does not enter the engine compartment when fueling. Check fuel fill hoses often to ensure their satisfactory condition.
4. Examine ventilation ducting frequently for proper attachment of ducting connection and for holes in the ducting. Broken ventilation ducting or the presence of holes in ducting may not provide sufficient air exchanges to remove explosive vapors.
5. Ensure gasoline vapor detector alarms are functioning properly. Gasoline vapor detectors should be installed in the bilge as low as possible. Gasoline vapors are heavier than air and settle at the low levels of the bilge.
6. Stand clear of engine compartments when starting engines after refueling operations.
7. The Captain of the Port recommends that commercial passenger vessel operators conduct fueling operations without passengers aboard.