



Do you use portable refueling containers?

Would you like to improve this process in the following areas?

- **Meet environmental compliance regulations.** Reduce spills and emissions from portable fuel containers. Reduce spill clean up and reporting requirements. Media area is the air program.
- **Improve workers' safety and health.** Reduce risk of fire hazards resulting from refueling operations.
- **Increase productivity.** No change to current operations.
- **Save money.** Minimize spill impact and associated clean up costs.



Portable Spill-Proof Fuel Can

*Spill-proof, portable fueling containers are now available to replace conventional "gas cans" used for transporting, storing and dispensing fuels. "Gas cans" are used to refuel a broad range of small off-road engines and equipment such as transport vehicles, support equipment, and maintenance equipment. Spillage can occur during refueling, transport and storage of the "gas cans." These cans are also a significant source of evaporative and permeation emissions. The California Environmental Protection Agency Air Resources Board estimated statewide fugitive fuel emissions from all containers in 1998 to be almost 94 tons per day. Workers may also be exposed to fire hazards from spills resulting from refueling operations. Compliance with recommended performance standards - such as automatic shut-off, automatic closure, flow rates based on container capacity, and a permeation standard of 0.4 grams - will substantially reduce hydrocarbon emissions and prevent costly clean up operations. **This equipment is available as a commercial, off-the-shelf product from a variety of suppliers.***

How can you achieve these improvements?

Use portable spill-proof fuel cans.

How does this equipment work?

Portable spill-proof fueling systems employ an automatic stop and shut-off feature, virtually eliminating spillage and substantially reducing transport and storage losses from the portable containers.

How will this equipment save you money?

While procurement costs are higher than for conventional "gas cans," the portable spill-proof fuel cans can prevent potentially expensive spill clean ups.



Typical Process Flow Diagram



How can this technology eliminate or reduce pollution?

This P2 technology can prevent fuel spills and air emissions resulting from fuel transfer, transport or storage operations. Use of this technology will result in the following pollution reductions:

- Reduce the damaging effects of fuel spills to the environment.
- Reduce the amount of evaporative fuel emissions.
- Reduce the amount of fuel products that must be cleaned up following spills.

Which operations can benefit most from this technology?

This technology can be used wherever fuel transferring or equipment readiness operations are conducted. Typical activities include:

- Motor Pool Operations
- Automotive Fueling
- Landscape Operations
- Equipment Fueling

How can this technology reduce regulatory compliance concerns?

This technology can eliminate spillage and air emissions from off-road mobile sources that are refueled using portable containers. Implementation of this technology will result in the following regulatory compliance benefits:

- May reduce or eliminate local VOC requirements in ozone nonattainment and maintenance areas.
- Helps facilities meet the provisions of state and local portable fuel container spillage control measures.
- Helps facilities meet the provisions of their Spill Prevention Control and Countermeasures (SPCC) plans as required by 40 CFR 112.



Achieving Environmental Compliance Through Pollution Prevention

Every day the Navy faces the challenge of operating and maintaining the fleet while complying with environmental regulations. This burden can be reduced by using pollution prevention technologies and methods to reduce compliance requirements. This fact sheet is one in a series designed to encourage activities to use pollution prevention technologies and methods. The overall goal of this series is to promote sustained environmental compliance at the lowest life-cycle cost.

For additional information, contact:

More information about this technology can be found at the California Air Resources Board website (URL: <http://www.arb.ca.gov/msprog/spillcon/reg.htm>)

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