

**MEMORANDUM**

September 10, 2004

To: MWAQC Technical Advisory Committee

From: Jeff King, MWCOG/DEP

Subject: Summary of Gas Can Replacement Program Implementation Issues

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This memorandum provides information pertaining to implementation of the gas can replacement program in the region. Since June, local jurisdictions and State officials have been in communication with COG staff. The purpose of the communication has been to discuss concerns raised about potential fire safety issues with the new gasoline containers. There have been 3 conference calls with the following participants: Jim Sydnor (Virginia DEQ), Mary Richmond (Montgomery County), Alex Verzosa (Fairfax DPW), Jeff Harn (Arlington DPS), Kambiz Agazi (Fairfax County Exec. Office), Kanti Srikanth (VDOT), Mark Moszak (Loudon County), Rick Canizales (Prince William County DPW), Ian Beam (MDOT), Rich Denbow (Consultant), Jeff King (MWCOG), Joan Rohlf (MWCOG), and Beth Lowe (MWCOG). Additionally, local jurisdictions have been requesting information on procurement of gas cans for county use.

**Safety Concerns**

The Fairfax County Fire Marshal's office was notified by county employees that there may be a problem with the plastic CARB-compliant gas cans. Under high temperature, there is a potentially unacceptable pressure build-up inside the container because the cans are not equipped with an automatic venting mechanism. Upon cooling, a vacuum condition can occur. In either case, serious deformation of the container is possible. It is believed that container deformation is a problem because it can cause the bottom of the container to become rounded so that the container rolls over, and/or the seams of the container rupture.

An official from the Fairfax Fire Marshal's office (Skip Hile) met with Bob Renkes, a member of NFPA (the standards organization that handles standards on use of gasoline containers). It was agreed at that meeting that Fairfax County could prepare a request for a "Temporary Interim Amendment" from NFPA to clarify the venting requirements for small consumer gas cans. It was noted however that the problem may not be with all of the CARB-compliant cans, so testing could help determine if the problem applies to all manufacturers. Skip Hile indicated he would be conducting tests with upwards of 40 different can types.

In August, Skip Hile conducted tests to gather further information about how the available CARB- and non CARB-compliant containers perform under high temperatures. Preliminary results indicate that CARB compliant cans that do not vent can sustain pressures of up to 5.5 psi. All non-vented cans did deform, with variability in the degree of deformation noted across the different can manufacturers. Skip Hile reports that based on the results of this test, the Fairfax County Fire Marshal's office may not pursue an Interim Technical Amendment, but may

recommend that cans from one particular manufacturer (Scepter) not be approved for use in Fairfax County. During the tests, the gasoline containers from this manufacturer deformed more than 3 inches, experienced serious vacuum deformation upon cooling, and had very rounded can bottoms such that the cans would no longer sit upright. The Fairfax County Fire Marshal's office also intends to report the results to the Consumer Product Safety Commission. The tests also indicated that vented cans did not deform, but depending on the nozzle style, released gasoline liquid and vapor under high heat conditions and pressure build up.

During discussions with the owner of Blitz (the largest gasoline container manufacturer in the United States), COG staff determined that the gas can manufacturers have formed an association, based in Sacramento, California. Blitz reports that the industry is aware of the problem with the containers becoming deformed due to pressure, but stated that the cans are designed to withstand such pressures. The manufacturer also stated that ruptures should only result if there is a manufacturing defect. He noted that CARB is aware of the concerns being raised by consumers and the Fire Marshall offices and that CARB may be revising their regulations within the next year to address many of these concerns. There is a meeting within the next two weeks between the association and the California Fire Marshal's office.

Virginia's regulation requiring that only CARB-compliant cans be sold in the state will take effect on January 1, 2005.

### **Procurement**

Jurisdictions should ensure that gas cans provided to county or municipal employees for official business are OSHA approved. This means that the cans should be metal "safety cans". The safety concerns noted above should not apply to use of safety cans.

Currently, pending a decision on acceptability of plastic gasoline containers from the Fire Marshal, any CARB-compliant container is presumed to be acceptable for distribution to consumers.

A bid sheet with an active rider has been circulated to interested jurisdictions. Please contact Jeff King at 202-962-3238 or at [jking@mwkog.org](mailto:jking@mwkog.org) to obtain a copy of the bid package.