

FUEL TESTING PROCEDURES
“A QUICK GUIDE for Stewards”
For testing to be done by the Laboratory (not the DC Test)
Effective 1/1/10

Taken from section 9.3.26 of the GCR and the Fuel Testing Manual located in the Club Racing area of the SCCA web site under “Cars and Rules” in the “Scrutineering Forms and Procedures” section:
<http://www.scca.com/contentpage.aspx?content=77>

Step 1. Receive a request for a fuel test

- Protest from one competitor against another
- With Region approval, by Chief Steward as a Chief Steward’s Action (CSA) or Request for Action (RFA)

Step 2. Collect bond(s)

- In the case of a protest, a \$250 bond must be collected from both the protestor and the protestee (similar to bonds for a mechanical protest when work is done away from track)
- If the action is initiated by the Chief Steward, a \$250 bond must be collected from the Protestee and the region must agree to pay the \$250 fee if the fuel is found compliant

Step 3. Follow the testing procedures in the Fuel Testing Manual (3 vials collected per car per test – test kit includes supplies for up to 6 cars to be tested)

- Section II.B.
- Please note that the SCCA Laboratory Fuel Test Sample Identification Form must be signed by both the protestee and the tech person performing the test (Note 1)

Step 4. Follow the Shipping Instructions in the Fuel Testing Manual

- Section II.D.
- Include the SCCA Laboratory Fuel Test Form (Note 1)

Step 5. Fill out and include the Official Observer’s Laboratory Fuel Testing Report in the Observers Report (Note 1)

- Important to note who should receive the replacement test kit

Step 6. Laboratory will notify Chairman of the SOMs of the test results

- Event results for this class should be on hold until compliance/non-compliance is determined (as is done for mechanical protests completed after an event)
- Once results are received, Chairman determines next course of action (normal car non-compliance options apply) and notifies participants, T&S and National Office of decision. See Minimum Penalty Guidelines for appropriate penalties.

Step 7. National office processes bond money

- Compliant car
 - \$250 refunded to protestee
 - \$250 retained from protestor (if action was a protest)
 - \$250 billed to region (if action was CSA or RFA)
- Non-Compliant Car
 - \$250 retained from protestee
 - \$250 returned to protestor (if action was a protest)
 - No bill to region (if action was CSA or RFA)

Note 1: One copy of these forms will be included in the Chairman’s Packet in the Event Sanction Packet.

Excerpts from the SCCA Fuel Testing Manual

B. Safety and Test Equipment Preparation

The area where fuel testing is performed shall be considered hazardous and all applicable safety protocols herein shall be followed.

1. Dangers (toxic and flammable substances)

- Gasoline, gasoline additives and some testing materials are potentially toxic substances. If you ingest any of these chemicals or get them in your eyes, seek medical attention immediately.
- Gasoline may contain tetraethyl lead and other chemicals that can be absorbed through the skin and lungs with considerable cumulative adverse health effects.
- Keep fresh water on hand to flush away chemical spills on you and others.
- Keep all fuel testing components and chemicals away from children.
- Always handle gasoline in a well-ventilated area.
- There shall be no smoking, open flame or running engines within 25 feet of the fuel testing area.

2. Environmental concerns

- Collect all waste from fuel testing in a suitable closed container (approved fuel can). Placing fuel sample cups and bottles upside down in a funnel facilitates draining excess fuel or test chemicals into the waste container.
- If possible, excess fuel should be returned to the competitor once processing is complete. Waste fuel and cyclohexane can be decanted and used in any gasoline burning equipment (mowers, generators, pumps, etc) as a means of disposal. If provisions are available for disposal of waste fuel and cyclohexane, please dispose of waste properly.
- Avoid spilling fuel or test chemicals on the ground.

3. Cleaning of Equipment

Be fanatical about cleanliness. Rinse test equipment after each test with cyclohexane. For collection bottles, empty any fuel not needed for testing, then swirl cyclohexane in the bottle. Drain the cyclohexane, invert the bottle and allow it to dry completely. For sample cups, collect several drained cups, rinse with a small amount of cyclohexane, transferring it from cup to cup. Wipe all equipment dry with a paper towel. Where this is impractical (e.g., pipettes), allow the piece to dry completely. The use of acetone or distilled water as a rinse liquid should be avoided unless absolutely necessary because both affect test results. In any case, allow all test equipment to dry completely before reuse.

SHIPPING PROCEDURES ►►►

4. Fuel Test Kit Package Shipping Instructions

Within 1 or 2 days the test kit package should be shipped ground by UPS/FedEx. ****IMPORTANT-an address label is included in your fuel testing kit to put on the package. It is neon in color****. Below is a sample of the address label and how the package should be addressed with the shipping label. **The reference to 49 CFR 173.4 is absolutely required when shipping the kit to the laboratory.**

From

CHEMPRO, INC
8902 FM 1405 Rd
Baytown, TX 77520

ATTN: SCCA TESTING

This package conforms to 49 CFR 173.4 for domestic highway or rail transport only.

II. Acquisition of Fuel Samples for Laboratory Testing

A. Laboratory Fuel Testing Kit

The fuel testing kit should contain the following items:

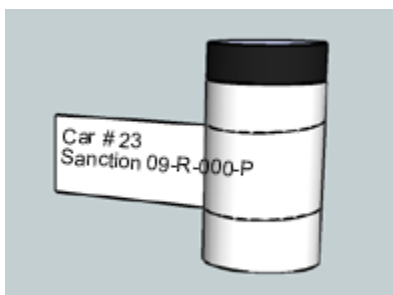
- Rubber gloves (latex-free)
- Plastic disposable pipettes
- Glass vials and caps
- Adhesive labels
- Metal container, filled with vermiculite, and plastic locking ring
- Cushioning material
- Cardboard shipping box (in which kit was delivered)

Required forms:

- Form to record identifying information
- Laboratory Fuel Test Form (to be completed by Chief Steward or Chairman SOM)
- Shipping label

B. Procedures

- Obtain a fuel sample in a collection bottle used for DC testing (see below). If DC testing is not going to be performed, only a small amount of fuel is required.
- Using a supplied plastic disposable pipette, fill three glass vials from the collection bottle (3 to 4 ml – about 0.1 to 0.15 ounce). The vial does not need to be filled to the brim. Discard the pipette.
- Cap each vial.
- Seal the cap using electrical tape (this is to prevent the cap from loosening during shipment).
- For each vial, on the supplied labels provide the date and time the sample was obtained, the car class and number, and the event sanction number.
- Wrap the label around the vial and stick to itself as shown in the figure below.



- Using the Laboratory Fuel Test Sample Identification Form, record the same information as on the label.
- Return any unused fuel to the vehicle from which it was obtained. Clean and dry the collection bottle before reuse.

***** REVISED JUNE 2011 *****

- Until the next step, keep the vials in as a cool and dark place if possible (a refrigerator or cooler is preferred, but not required).
- When all samples have been collected for the event, place two (2) of the vials for each test in the metal container (distribute the vials within the vermiculite to protect the vials during shipment). The third vials are to be retained by the Chief Steward or the Chairman SOM (or an official designated by them); these vials should be kept in a cool and dark place until disposal. The contents of the third vials and the vials shall be discarded when the laboratory results are received by the Chief Steward or Chairman SOM. (The third vials will only be used if the original shipment is lost or if the laboratory is unable to process the first vials sent.)
- Secure the lid (it is not necessary to pound the lid into place – firmly seated is sufficient)
- Put the plastic safety lock over the top of the metal container.
- Deliver the container, the cushioning material, the cardboard shipping box, the Laboratory Fuel Test Sample Identification Form with identifying information, the shipping label, Laboratory Fuel Test Form and the retained (third) vials to the Chief Steward and/or the Chairman of the SOM, as appropriate.
- Unused vials and pipettes should be retained for future use. Retain the rubber gloves.
- When the Official Observer's Report is filed with the Club Racing Office, a replacement kit will be sent to the designated recipient.

C. Shipping

- The Chief Steward or the Chairman SOM must fill in the Laboratory Fuel Test Form. The form is placed in the cardboard shipping box along with the metal container and cushioning material.
- The Chief Steward or Chairman SOM must retain the Laboratory Sample Identification Form.
- The cardboard shipping box is to be sealed for shipment.
- The supplied shipping label is to be affixed to the cardboard shipping box.
- At the earliest opportunity, the box should be sent via UPS or FedEx to the laboratory. The shipment can be sent by two or three day delivery, depending on cost and distance. UPS shipments can be made from any UPS acceptance facility (i.e., UPS Customer Centers, UPS Stores, Office Depot, Staples, or other authorized shippers), but not self-service drop boxes. FedEx will only accept these packages at FedEx staffed locations (not Kinkos or drop boxes). (The US Postal Service will not accept these shipments.)
- The laboratory will email results to the Chief Steward or the Chairman SOM within three to five business days of receipt of the samples.
- The laboratory will receive payment from the appropriate bond.
- Upon receipt of the laboratory results, the CSA, RFA or protest can be completed.