Safety, Training, Log Book and Licence

(From the 2012 School’s Handbook)

There are three key elements to Energy Breakthrough preparation:

• Technology and design of the vehicle,
• Fitness and endurance, and
• Vehicle handling skills.

Participants plan and prepare the first two well: Long hours are dedicated to design and construction and diet and physical training plans sometimes rival Olympic efforts. However, time in the vehicle in a range of scenarios is key to safe vehicle handling.

Maneuverability is an extremely important safety issue. Teams will be riding for 24 hours. Well-planned training programs may prevent accidents when riders are tired.

Riders need to have some experience and training in the demands of the track. It is essential that students are well prepared for the varied conditions and challenges at the event through pre-event track conditions simulation and maneuverability practice.

*Training Program & Log Book*

With the help of VicRoads, we’ve prepared a Log Book for students to record their training and vehicle handling preparation. Although not compulsory, students are encouraged to present their Log Book to the new VicRoads station as part of the Scrutineering & Design and Construction process at Maryborough.

A copy of the Log Book is included at the end of this Handbook, additional copies can also be downloaded from the Energy Breakthrough website in the ‘Downloads’ section.

**What should our training program include?**

We recommend that all team members undertake at least 3 hours practice in the competition vehicle.

Practice in many and varied conditions, here are a few areas you might to cover:

• Safety experience
• Skid mitigation: sprinkle sand or gravel on the track turn the wheels into a skid
• Wet conditions training; hose your training track down to simulate rain
• Night riding practice: come back after dinner
• Cornering: chalk some tight corners onto the asphalt
• Cutting in and out of ‘the pack’: use witches hats
• Passing slower vehicles: use a bicycle as the other vehicle
• Defensive driving techniques: be ready for the unexpected.
• Pit Procedure: Practice smooth rider changeovers, including fastening seatbelts, adjusting seats and adding drink bottles
• Traffic lights and flag signals: Test each other to know what each light and flag colour means. The traffic lights/flag signals are the main way for Marshals and Traffic Officials to communicate with riders during the trial. During Design and Construction assessment members will be questioned about their knowledge of Traffic Lights/Flag Signals and track Conduct.
Here are some extra tips to help you prepare:

**Driver position**

Each team driver should be able to reach the pedals and be comfortable over their full range of movement, without stretching the leg straight.

Make sure the back is fully supported so that maximum effort can be applied to the pedals without needing extra support gained by pulling back on the steering wheel.

Both mirrors should be adjusted so that a vehicle following close behind – just to one side or other side – can be clearly seen without undue head movement.

Seat belts must be worn low over the pelvic bone (not high over the waist) and across the chest. The belt should be comfortable, firm and not prone to slipping off the shoulder. The seat position must ensure that the rider does not slide forward and under the seat belt.

**Corners**

A blue line is marked on the track. Vehicles are required to stay on the inside of the track (that is to the left of the blue line) at all times unless overtaking.

When entering a bend, look where you want the vehicle to go – this will help to pull you through in a smooth curve.

**Mirrors**

You must always be using your mirrors to know what is behind you, or if you are going to be overtaken, and to be aware of vehicles around you.

Finally, if you are planning to move from one side of the track to the other, give a quick glance over your shoulder to avoid moving into the path of another vehicle.

**Steering the vehicle**

Use a light grip on the steering wheel or levers; push the pedals from the hips, back and shoulders, with relaxed arms. This will allow you to steer smoothly and keep a straight line.

**Licence**

All team members are required to present their Licence to the new VicRoads station, which will be part of the Scrutineering & Design and Construction process at Maryborough.

If no licence is presented, any number of riders in your team will be required to demonstrate competence in vehicle control by undergoing a tough test. Safety is the number one priority at the RACV Energy Breakthrough.

By signing the Licence, the Team Manager and Principal both certify that the student has completed the necessary track safety, vehicle maneuverability training and has read and is familiar with the Trial regulations.

**Team Template:**

A template to print eight Licences is available from the Energy Breakthrough website in the ‘Downloads’ section.