**2017 Policies and Procedures for Closed-Track Races**

**Garage/Pit Placement/Starting Order**

Teams draw for pit placement during Team Check-In. The number drawn at check-in will be used as the team’s placement with the garage and along pit row throughout the entire event. Pit row space will be numbered consecutively, starting with the space closest to Turn 1. Efforts will be made to locate teams with multiple cars next to each other. The starting order for the first day will also be drawn during Team Check-In.

**Running Time**

All teams will be released at a regular interval (nominally one minute) starting at 9:00am on each race day. Teams participating in the Classic Division and the Electric-Solar Powered Vehicle Division may run for 3 hours in the morning and 3 hours in the afternoon. Teams participating in the Advanced Division may run for 8 hours. The time starts when the team is released from the Start Line. For example, the third team will be released at 9:02am. If in the Classic Division, the team may run from 9:02am – 12:02pm and 2:02pm – 5:02pm. If in the Open or Advanced Divisions, the team may run from 9:02am – 5:02pm.

Time officially starts when the car is released onto the track, per the flagger’s countdown. If a team is not ready at their time slot, time will start according to the official clock.

Only complete laps are counted towards the team’s total. Laps are counted as complete once the front of the vehicle crosses the plane of the pit wall or crosses the start/finish line.

**Horns and Passing**

Per Rule 5.12.2, each solar car must have a horn producing at least 92 decibels and mounted as far to the front as possible. At scrutineering, all vehicles will be inspected with regard to this regulation.

While on the race track, solar cars wishing to pass must sound their horn to express their intent to the solar car being passed. This warns the solar car being passed to stay to the inside of the track. The pass is considered started upon indication of horn. Solar cars being passed may not pass another vehicle until the faster solar car has completed the pass. When a pass is in progress, another (faster) solar car may not pass the two vehicles ahead until they have completed their pass (no 3 wide passing), except in the front and rear straight. Only one faster solar car may initiate a 3 wide pass on the front or rear straight (no 4 wide passing).

If there are complaints that the horn is not heard by solar cars being passed, a race official will cross to the Start/Finish line, point to the car and raise a sign labeled “Horn Check”, noting to honk the horn. The driver must then honk the horn for the race official to confirm that the horn is still operational. If the horn is shown to be malfunctioning, the solar car must exit the track to pit lane upon conclusion of the lap. The solar car may not be readmitted onto the track until an audible inspection is conducted by a race official. Solar cars with malfunctioning horns may not pass unless clearance is given by race officials (e.g. to clear solar cars broken down or moving extremely slowly).

**Radio Check**

Teams must be in continual radio contact with their driver. If a team loses radio communication with their driver, the team or their judge must inform the scoring tent that they have lost radio communication. A race official will cross to the Start/Finish line, point to the car and raise a sign labeled “Radio Check”, one indicating the team’s number and another noting that the driver should radio back to their team. If radio communication is not established, the driver must exit the track to pit lane upon conclusion of the lap. The solar car may not be readmitted onto the track until a radio test is successfully conducted.

**Driver Change Area**

An area of the track side of the pit wall will be designated as the driver change area. This area is designed for teams to change their drivers without having to exit and re-enter the track. The area may also be used for other housekeeping tasks, such as providing additional water to the driver, changing radios and/or batteries, etc. Repairs may be done in the driver change area only if it takes 2 minutes or less and is cleared by the team’s judge. If a repair is started in the driver change area and it takes more than 2 minutes, the team will be asked to drive or push their solar car past the pit wall for further repairs.

Only two cars may occupy the driver change area at one time. Teams requesting use of the driver change area must clear the request with the scoring tent to ensure that the space is available for use. The team’s support personnel must arrive at the driver change area before their car arrives. If support personnel are not in the driver change staging area before their car arrives, race officials can direct the solar car to proceed around the track and return back to the driver change area when they are ready.

Once the solar car enters the driver change area, the safety officer must walk through the pit wall opening, move two paces behind the solar car, and monitor the pit lane for traffic. Once the safety officer is in place, up to 2 other team members may walk through the pit wall opening, chock the solar car, and then complete the errand and/or repair. The driver being replaced may also exit the car at this time. Once the driver change and other tasks are complete, the non-driving team members must remove the vehicle chock, cross back through the pit wall opening. After all members are safely on the garage side of the pit wall, the safety officer may return and cross back through the pit wall opening. When all members have safely returned, and no vehicles are approaching in pit lane (or when clearance is given by the supervising judge), the driver is free to continue down the pit lane onto the main track area.

**Caution**

Cautions are issued over the PA and radios by the scoring tent or PA announcer. Cautions are applied to specific areas of the track (turn 1, 2, 3, 4, front straight, and/or rear straight). When cautions are issued, no passing may occur in the applicable area from the start of the zone to the location of the obstruction until the caution is cleared by the scoring tent. Cautions are typically issued when a solar car has broken down on the track.

**Breakdowns**

A solar car may break down on the track during the race session. When a breakdown occurs, the team will notify the judge that their vehicle has broken down, and that they will retrieve their solar car. Teams are required to have a vehicle-trailer to retrieve their car from the track.

The judge accompanies the team to the support vehicle and sits in the front passenger seat. The judge should then notify the scoring tent that the support vehicle is ready to retrieve the broken down solar car. When ready, the scoring tent will ask the team to move their support vehicle to the support vehicle entrance and stop at the pit wall. Once the pit lane is clear and the announcement made over the PA, a race official will clear the support vehicle to enter the track. When on the track, flashing yellow lights shall be used if equipped.

The support vehicle must yield to solar car traffic when entering the track. Support vehicles may pass solar cars, using the prescribed method used by solar cars. Solar cars may not pass support vehicles, except when they are stopped in position on the track. Once the support vehicle is in place in front of the broken down solar car, the safety officer must set up cones behind their solar car to warn vehicles of the obstruction. The safety officer must stand at the end of the line of cones waving a safety flag. Once the safety officer is in place, other team members (upon clearance from the judge) may exit the support vehicle and assist in loading the solar car onto the trailer. The driver may also help at this time. Once the solar car is secured onto the trailer, all team members (other than the safety officer) must return back to the support vehicle. When all team members are in the support vehicle, the team shall signal to the safety officer to return to the vehicle. The support vehicle may use the same entrance to exit the track.

**Electric-Solar Powered Division Procedures**

Teams participating in the Electric-Solar Powered division will have a solar charging station. The solar charging station will be placed in a designated area and must remain in place for the duration of the race, in accordance with Rule 32.3.2. Teams wishing to exchange batteries during the race must exit the track, then push their car to their solar charging station in the presence of their judge. The judge will then monitor the exchange of batteries to ensure it is done safely. Once complete, the team can then bring their vehicle back to the track entry location and released onto the track by a race official.

**Pit Lane / Garage Area Speed Limit**

Pit lane is defined as the part of the track on the track side of the pit wall. Solar cars must drive slowly in pit lane at all times. A penalty may be issued if the solar car speeds down pit lane.

No passing is allowed in pit lane unless cleared by the team judge. This should be a rare situation where the slower car is moving very slowly towards the pit exit, and a faster solar car is completing the lap before exiting the track. In this scenario, the slower solar car shall drive next to the pit wall, and the faster solar car shall drive in the outer lane. A horn indication shall be used, similar to passing procedures on the track.

The garage area is defined as the area on the garage side of pit wall and the garage itself. Solar cars in this area must be traveling at walking speed or less.

**Spotters**

One team member from each team may be designated as a spotter and watch the race from the stands. This allows the spotter to help notify the driver of obstructions, upcoming vehicles, and imminent passes. Spotters should start assembling near the track entry no later than 15 minutes before each race session. Spotters will be escorted across the track 10 minutes before the first solar car is released in the session. They must remain until the session is complete. Spotters should carry an adequate supply of liquids with them to hydrate them during the whole race session. Spotters for all divisions may be exchanged during the lunch period. Spotters in the stands should assemble near the entrance to the track when most Classic and Electric-Solar Powered Division cars have exited for the lunch break and wait for a race official to release them to cross over. Spotters for Advanced Division teams should assemble near the track entry at 12:15pm if they wish to spot during the lunch break.

**Routine Penalties during Closed-Track Races**

1. The Texas Motor Speedway requires, by contract, that no one sit or stand on the pit wall. Standing or sitting on the pit row wall will result in a one lap penalty.
2. All persons taking part **i**n the Solar Car Challenge must wear a hat when they are outside the garage. We recommend a wide-brim hat to provide much needed protection for the ears and neck in 107 degree conditions. “Baseball caps” are not adequate. Not wearing a hat outside the garage will result in a one lap penalty.
3. All persons taking part in the Solar Car Challenge must wear closed-toe shoes. Not wearing closed toe shoes will result in a one lap penalty.
4. Persons working on a solar car in the “garage area” must wear protective eye wear. Appropriate penalties will be applied.
5. Solar cars driving in the garage area, as defined above, must be traveling at walking speed or less.Traveling too fast will result in an appropriate penalty.
6. Teams are responsible to inform their guests that they are also bound by these provisions.

**Sportsmanlike Conduct**

Race officials expect each team to conduct themselves in a sportsmanlike manner. Teams should be courteous to one another and respect the privacy of each team’s private communications. As such, any teams found intentionally eavesdropping on another team’s radio communications shall be assessed an unsportsmanlike conduct penalty, per the judge’s discretion. Other unsportsmanlike conduct may be similarly penalized, per Rule 24.8.

**Communications with Race Officials**

Teams are encouraged to talk with race officials on a regular basis. If a team desires to take a particular action, please inform the team judge of your intentions. The judge is your official liaison with the race organization and is empowered to provide decisions on behalf of the race. If there is an issue that a judge cannot resolve, teams can call for clarification to another race official, such as the Technical Director or Assistant Race Director.

**Water Station Responsibility**

The race provides water to teams through the seven days of the event (July 18-22). Each team will be asked to volunteer team member(s) to help with this responsibility during one of the racing periods. These volunteers, working with race staff, will insure that everyone has water and other refreshments.

**Identification of Participants**

The Race will provide each race participant (students, chaperones, teachers) with an identifying badge at Team Check-in. This makes it easier for Race Staff to provide better security during the event. Participants must wear the badge for access to the garage, and for race-sponsored meals.

Drivers for each team will have a special wristband identifying them as “qualified” to drive in the race. This implies that the driver has a State Driver’s License, and has passed Scrutineering checks.

**Team Check-In**

Teams, and all team members, must be present at the Official Team Check-In scheduled for 4:00 PM, Saturday, July 15, 2017. This makes it possible to identify and register all drivers, and for the full team to take part in crucial meetings scheduled that evening. Penalties will be imposed for teams not respecting this guideline.