

FLAME EFFECTS

DEFINITION

Flame Effect is defined as “The combustion of solids, liquids, or gases to produce thermal, physical, visual, or audible phenomena before an audience”. This includes all flames that are automated, switched, pressurized or having any other action than simply being lit on fire; as well as projects using propane or other liquid or gaseous fuels. Mutant owner/drivers must comply with the following guidelines:

GUIDELINES

The majority of Flame Effects utilise Liquefied Petroleum Gas (LPG). Most of the guidelines below deal with LPG as a fuel. Regardless of fuel type or technological basis, all Flame Effects must be constructed in such a way as to meet or exceed applicable laws, codes, and industry standards.

- All LP-GAS CONTAINERS shall be designed, fabricated, tested, and marked in accordance with the regulations. All gas containers need to be tied off safely and securely.
- **FUEL SUPPLY PIPE, TUBING, HOSES, AND FITTINGS** - All fuel supply pipes, tubing, hoses and fittings shall be rated for the type of fuel being used and the maximum operating pressure of the effect.
- All LP-Gas Hoses that will be operated in excess of 5 psi shall be designed for a working pressure of at least 350 psi and shall be continuously marked by the manufacturer to indicate its maximum operating pressure and compatibility with LP-Gas.
- Air or pneumatic lines are not acceptable as fuel hoses. LP gas degrades rubber hose not specifically designed for use with that fuel. This results in the hose cracking from the inside out, potentially leading to a catastrophic failure.
- HOSE CLAMPS are prohibited on LP-Gas hoses. All hose connections shall be factory made, or constructed with a crimped fitting specifically designed for that purpose.
- All LP-Gas metallic piping and fittings that will operate at a pressure greater than 125 psi shall be a minimum of schedule 80.
- All metallic tubing joints shall be flared (soldered joints are prohibited).
- Assign a skilled flame safety officer
- Have several large extinguishers on your MV and visibly displayed.

FUEL ACCUMULATORS

Accumulator tanks for use with flammable or liquefied gas shall be designed, manufactured, and tested in accordance with the legal requirements.

If the gas supply pressure exceeds the maximum allowable operating pressure (MAOP) of the accumulator, a regulator shall be installed between the fuel supply and the accumulator to reduce the pressure below the accumulator MAOP. A pressure relief valve shall also be installed in the accumulator with a start-to-leak setting at or below the MAOP and a rate of discharge that exceeds the flow rate of the

supply container.

Flame Effects must never be left unattended. The winds in the desert are highly variable, and may create havoc in a poorly monitored installation, including fires or explosions. Any Flame Effect found running unattended will be shut down. Egregious or repeat offenses will result in the confiscation or disabling of the effect. Lock off your gas bottles and controllers.

SAFE CLEARANCE AND PERIMETER

For larger Flame Effects a safety perimeter and clearance from other art or flammables may be needed.

During burns mutant vehicles must be 15 meters plus away from the burn perimeter.

SAFE STORAGE OF FUEL

LPG should be stored safely in a cage with a fire extinguisher standing near. Contact dmv@afrikaburn.com for safe bulk storage. We will direct you to where you can store fuel (petrol, diesel, paraffin and LRP).

Our flame team are Rex Hazard, Luke Atkinson and Charl Bothma

NB: please follow our guidelines and communicate with your fire team lead