



Guidance: Use of petrol generators at events with special reference to fire risk, fuel storage and re-fuelling.

NOTE: A risk assessment must be conducted under the Regulatory Reform (Fire Safety) Order by any person responsible for premises.

Firstly, consider if a petrol generator is really necessary? Is there a source of mains power available? Is there a diesel generator available?

Assumptions: The generator will be a modern domestic or small worksite petrol generator with integrated starting mechanism and an integral petrol tank of less than 10 litres capacity unleaded petrol (see examples below). Other types of larger petrol generator or those with non-integral fuel tanks must be assessed separately.



Domestic 'suitcase' generator



Small worksite 'frame' generator

Generally petrol generators are acceptable provided there is a sound Safe System of Work and refuelling method. The relevant event manager must be satisfied that the person in charge of the generator is competent. Competence is difficult to define, but verbal assurances along the lines of 'Yeah, OK! That's cool man, I know how to do it' etc is probably not enough. A formal written risk assessment and method is preferred, but some discretion must be available to cover those who are more competent in the use of generators than in the production of paperwork. If the event manager is unable to satisfy themselves that the operator is competent then permission to use the generator must be refused and appropriate action taken to ensure compliance.

The risk assessment (which may be written or verbal) should identify fire as the principal hazard. It must also identify unauthorised access to the generator, storage of spare fuel and the refuelling operation as hazards. Electric shock via the electrical connections made to the generator, manual handling, and COSHH assessments would be evidence of a suitable and sufficient risk assessment.

From an event point of view we need to address the most significant hazard which is fire (after all this guidance is concerned with petrol, not electricity).

The generator

- Generator must be positioned in an appropriate place i.e.
 - a well ventilated, outdoor location
 - out of public areas and traffic routes
 - not adjacent to tents, marquees etc

- exhaust discharging in a safe direction
- It must be barriered off from unauthorised access including:
 - the public (especially children)
 - event personnel who have no reason to approach generator
- There must be suitable signage e.g.:
 - keep out
 - no smoking or naked flame
 - electrical hazards
 - fire hazards
- A fire extinguisher of the correct type (Powder or CO₂) must be provided
- Spare fuel must be
 - the minimum amount required for the day
 - stored in a green (unleaded) or red (leaded) petrol storage container with secure closure
 - stored in a secure place
 - stored out of direct sunlight and ignition sources
- Who will enact controls? The person in charge of the generator
- Who will monitor controls? The event safety officer / production manager / stalls or trader manager
- How will they monitor controls?
 - confirm operator's method (either written or verbally to satisfy themselves that the operator is competent)
 - inspect installation of the generator (site electrician should sign-off electrical connections)
 - check the refuelling operation (either by arrangement with the operator or on a spot-check basis)

Refuelling Method

- Carried out by a trained and competent person
- Follow the manufacturer's or hirer's instructions
- Allow the generator to cool down before refuelling

Hot generators should not be refuelled as this is a major cause of fires. A petrol spillage is not necessary for a fire to start, heat from the engine or exhaust can ignite the invisible vapours causing severe burns. Make arrangements so that there is time for it to cool down, i.e. when the need for power is reduced during a rest break, and before it gets dark if being used for lighting. If continuous power is required a secondary source should be provided to allow for a cooling off period.

- Have a funnel or spout available to avoid spillages
- Provide absorbent cloth to mop up spills
- Wear gloves (also mask and goggles if identified by risk assessment)

Personal protective equipment is the last resort, but should always be used by the person doing the re-fuelling as it is cheap, easy and effective.

- Take care not to overfill the tank and replace filler cap.
- Confirm barrier is secure.
- Return spare petrol container to secure storage.