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Environmental Guidelines

Spray Painting



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New Projects	Existing Projects
▶Identification for the person applying for the Authorisation (National ID Card, Passport).	▶Identification for the person applying for the Authorisation (National ID Card, Passport).
▶Proof of Land Ownership.	▶Proof of Land Ownership.
▶A “No-Objection” Letter for the operation from the relevant Local Authority (NDC, RDC, or Town Council) <i>N.B. The Approved Site Plan by the NDC, RDC, or Town Council would be accepted as “no-objection”.</i>	▶A “No-Objection” Letter for the operation from the relevant Local Authority (NDC, RDC, or Town Council) <i>N.B. The Approved Site Plan by the NDC, RDC, or Town Council would be accepted as “no-objection”.</i>
▶“No Objection” from the Village Council and Ministry of Indigenous Peoples’ Affairs if the project falls within Amerindian titled lands.	▶Permission from the Central Planning & Housing Authority.
▶Permission from the Central Planning & Housing Authority.	▶Map showing surrounding land uses, location (s) of water intake and the location (s) of any existing discharge structures.
▶Map showing surrounding land uses, location of proposed water intake and proposed discharge structures.	▶Site Plan showing the layout of the Operation.
▶Draft Site Plan (approved by the Local Authority) showing the layout of the Operation (submit a final version after all necessary adjustments have been made).	▶Summary of Project giving an overview of operations including such information as the amount of vehicles received on a monthly basis, if a spray booth is erected, how spraying is done, etc.
▶Summary of Project giving an overview of operations including such information as the amount of vehicles expected on a monthly basis, if a spray booth will be erected, how spraying will be done, etc.	▶Business Registration/Certificate of Incorporation (if applicable).
▶Business Registration/Certificate of Incorporation (if applicable).	▶Indication of whether or not a Permit or Licence from any other Government entity is required or have been obtained.
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Noise Emissions

Equipment used in spray painting activities can also be a source of noise. Noise from spray painting operations must be within the limits established in the Guyana Standard Guidelines for noise emission into the environment, according to the area where the facility is located.

Categories	Daytime Limits in Decibels	Nighttime Limits in Decibels
Residential	75	60
Institutional	75	60
Educational	75	60
Industrial	100	80
Commercial	80	65

Daytime: 06:00 h to 18:00 h

Nighttime: 18:00 h to 06:00 h

How do I get an Environmental Authorisation?

When applying for an Environmental Authorisation for a Spray Painting operation, the following documents need to be presented.

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Importance of Spray Painting Guidelines

Spray Painting is associated with a number of environmental, health and safety concerns. The main concern of Spray Painting operations is air pollution. Spray painting releases chemicals known as volatile organic compounds (VOCs) into the air and these can affect human health. When exposed to VOCs humans can suffer from eye and respiratory tract irritation, headaches, dizziness, visual disorders, and memory impairment. Exposure to VOCs can also cause cancer.

Additionally, throughout the spray painting operation, liquid and solid wastes are created, including used solvents, waste paint, used rags, and solvent containers. If not disposed properly, these could become a hazard to water quality, and could significantly increase the risk of fire.



Do I need an Environmental Authorisation?

An Environmental Authorisation is needed for medium to large scale operations.

- Medium scale operations are workshops that have a workload of 5 to 14 vehicles per month and operate on a daily basis with a fixed schedule.

- Appropriate personal protective equipment (PPE) must always be worn during spray painting. These include: gloves, goggles, face mask, long sleeved shirts, and long pants. All employees should be trained on how to use each PPE. However, protective equipment should not be stored in the spray booth.
- A Material Safety Data Sheet (MSDS) should be available to provide information to employees on the hazardous substances used in the workshop. The MSDS should include such information as how the substance can affect someone's health and the type of PPE that should be used while handling the substance.
- Compressed gas cylinders should be stored and managed according to the supplier's recommendations. Air compressors should also be operated according to manufacturer's instructions.
- Electric motors that power the exhaust system must be outside the spray area and properly placed.
- Fire extinguishers and spill kits should be available and functioning.
- First Aid Kits must be always available.
- Employers must ensure the placing of proper signage around booths, especially, 'No Smoking' signs.
- Persons working in booths should be trained regularly in proper environmental health.

- Empty solvent containers can be reused to store either used solvent that will be reused or waste solvent waiting to be disposed of.
- Rags used to soak up solvents should be kept in a closed container labeled '**HAZARDOUS WASTE**'.
- Any waste that is produced from a spray painting operation should be disposed of at the Haag's Bosch Landfill, Eccles, East Bank Demerara.

Spills

- A spill kit must always be available and employees should know how to use it. To clean up a spill, absorbent material should be used. Install drain covers or drain valves to stop spills or leaks from entering drains or the sewerage system.
- If spilled solvent isn't contaminated, use it for cleaning. Any material used to clean up a spill should be stored in a sealed drum before disposal at the Haag's Bosch Landfill.

Health and safety of workers

The operations of a spray painting shop should not only be managed to ensure environmental protection, but importantly, the health and safety of workers also need to be considered. Therefore, the following practices should be adopted:



- Large scale operations are workshops that have a workload of 15 vehicles or more per month and operate on a daily basis with a fixed schedule.

If you currently own or are thinking about setting up such an operation then you need to apply to the Environmental Protection Agency (EPA) for an Environmental Authorisation. (see pg. 8)

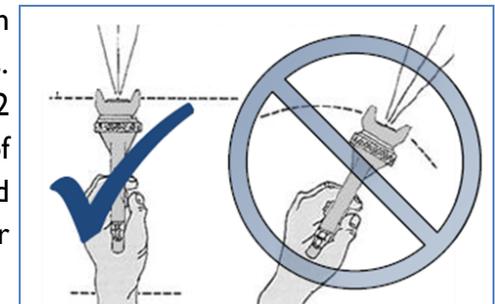
Things to consider before setting up a Spray Painting Operation

Location

Spray painting shops should be located in a commercial or industrial area and not a residential area. Spray shops should be at least 50 metres (164 feet) away from the nearest residence.

Setting up

- Spray booths or rooms should be constructed with non - flammable materials, such as steel, concrete and brick. Booth walls must be smooth and without edges to avoid the trapping of residue.
- Booths should be well ventilated to keep vapours and paint away from other work areas.
- Exhaust vents should be put in place to remove vapours. These should be at least 2 metres above the highest roof in the surrounding area and should include an effective filter system to reduce emissions.



Handling equipment

- When spraying, hold the spray gun at a right angle to the surface being sprayed.
- The spray gun should be used according to the equipment specifications. *(This will give the proper coat thickness, and minimise the use of more coats and so help to reduce VOC emissions).*
- Choose spray equipment that will cause the most paint to be applied to the surface when sprayed, e.g., HVLP – High Volume Low Pressure paint gun.

Preparing for spraying and topcoats

- Wash dirt/grime from the vehicle using water or a mixture of soap and water. To remove sanding, sludge, fingerprints, waxes and other contaminants use water based cleaners. Use cleaners that contain chemicals to remove grease, road tar, silicone, and driveline oils.
- Apply only the number of coats needed to achieve a quality finish. Choose prep coats, primers and sealers in colours that can be easily covered with the topcoat. Avoid using lacquer-based topcoats.
- Avoid zinc-phosphate primers with a high amount of VOC. Instead, use low VOC primer-surfacer, primer-sealers such as Chrome-Free Etch Primer and Epoxy Primer-Sealers.
- As much as possible, perform body work using a small amount of

primer-surfacer.

Cleaning equipment and managing solvents

- Use low VOC cleaning solvents to clean equipment. These include formulas containing acetone, dibasic esters (DBE) and terpenes.
- Solvents must be stored in a ventilated area in covered containers when not in use.
- Only get rid of solvents when they can no longer clean effectively, not just because they look dirty.
- Dirty solvents can be reused by allowing them to settle. To do this, the used solvent is placed in a container to allow the particulate matter to settle out. The container should be designed in such a way that the solvent can be removed without shaking up the particles which have settled.
- Other methods for solvent recycling include filtering and distilling.

How to manage waste and spills

Waste

- Never dispose of waste solvents, wash water, paint, etc. into the drain or nearby water ways.
- Collect and store all contaminated solvents used to clean equipment in a drum.

