

Generic Environmental Protection Measures for Conducting Renovation Work at Shopping Centres

Problems	Recommended Measures in the Construction Stage
Odour	<ul style="list-style-type: none"> ✓ Enclose the renovation works area with tight partitions ✓ Use dedicated and isolated ventilation ducts and exhaust points to extract and discharge renovation odour and to prevent it from contaminating the building's central air-conditioning system ✓ Locate exhaust points for renovation odour in a dispersive area and away from air sensitive receptors ✓ Use mechanical ventilation devices such as fan and blower for odour extraction. ✓ Use odour absorbing and filtering materials/machines for absorbing irritating and volatile fumes ✓ Use building material with zero or low level of VOC to help reduce odour nuisance <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>▲ Use of blower to extract out odour through isolated openings</p> </div> <div style="text-align: center;">  <p>▲ Enclose the renovation work area with tight partitions</p> </div> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;">  <p>▲ Use of volatile organic compound (VOC) free paint</p> </div> <div style="text-align: center;">  <p>▲ Use of photocatalytic oxidation reactor</p> </div> </div>
Dust	<ul style="list-style-type: none"> ✓ Enclose the renovation works area with tight partitions ✓ Cement, sand, debris or other dusty materials should be covered up or kept moist ✓ Spray water before breaking, grinding, sand papering or wood cutting operation ✓ Fit vacuum cleaner to grinding, sand papering or wood cutting machines ✓ Maintain good house-keeping and increase the cleaning frequency of the surrounding areas ✓ Use enclosed vessels for transporting dusty materials

	<div style="display: flex; justify-content: space-around; align-items: flex-start;"> <div style="text-align: center;">  <p>▲ Fit vacuum cleaner to grinding, sand papering or wood cutting machines</p> </div> <div style="text-align: center;">  <p>▲ Spray water when conducting dusty operation, such as breaking work</p> </div> <div style="text-align: center;">  <p>▲ Use plastic sheet to cover up sand, cement and debris to avoid fugitive dust</p> </div> </div>
<p>Noise</p>	<ul style="list-style-type: none"> ✓ Schedule noisy activities during unrestricted period and when there are least shoppers (eg between 8:30am to 11:00am) ✓ Post advance notice to inform the affected parties, such as nearby shop owners or occupiers, on the schedule of noisy works ✓ Use quiet machine, such as hydraulic crusher for demolition ✓ Use noise barrier or absorber when using noisy machines ✓ Fit noise muffler to noisy machines ✓ Place rubber mat/pad beneath work benches and noisy machines <div style="display: flex; justify-content: space-around; align-items: flex-start; margin-top: 20px;"> <div style="text-align: center;">  <p>▲ Use quiet equipment, such as hydraulic crusher for demolition work</p> </div> <div style="text-align: center;">  <p>▲ Use movable barrier to shield noise when using noisy equipment</p> </div> </div>
<p>Demolition Debris</p>	<ul style="list-style-type: none"> ✓ Keep a record of the renovation waste generated from the premises undergoing renovation works ✓ Avoid the accumulation of renovation waste by requiring its removal once it is generated and if possible assign a dedicated area for their temporary storage while awaiting removal ✓ Encourage the use of wheeled bins/trolley with lid for the transport and storage of renovation waste. These bins may also be fitted with a tag to identify the owners/occupiers of the premises generating the renovation waste ✓ Warn the suspected offenders and gather details on the origin of the renovation waste for potential flytipping incidents ✓ Report to EPD of anyone seen dumping waste illegally ✓ Enhance patrol and access control at potential flytipping blackspots ✓ Enhance awareness by publicity works (distributing construction waste charging

	<p>scheme related leaflets to the renovation contractors and these leaflets can be obtained from EPD)</p> <ul style="list-style-type: none"> ✓ Incorporate clear instruction on waste disposal in your guidance notes for the owner and contractor carrying out the renovation works ✓ Consider opening a billing account with EPD and offer a value-added disposal service for renovation waste by charging the responsible owner accordingly ✓ Separate the non-recyclable materials into inert materials (e.g. soil, concrete and bricks) and non-inert materials (e.g. general rubbish) prior to arranging their disposal ✓ Set up separated areas/individual containers for collection of different recyclable materials, e.g. paper, wood, metal and plastic ✓ Arrange with recyclers a regular collection schedule for the recyclable materials <div style="display: flex; justify-content: space-around; align-items: center;"> <div data-bbox="370 757 871 1088"> </div> <div data-bbox="1018 824 1417 1088"> </div> </div> <ul style="list-style-type: none"> ▲ Billing account for construction waste disposal can be opened from the EPD's ▲ Use wheeled bins/trolley with lid for the transport and storage of renovation
<p>Solvent & Paint</p>	<ul style="list-style-type: none"> ✓ Reuse residual paint and solvent as far as possible ✓ Dry/cured paint (non-chemical waste) can be disposed of as normal refuse ✓ Small quantity of household waste solvent or paint can be disposed with household refuse ✓ Property management companies can consider to register as a chemical waste producer and offer a valued added service to centrally collect waste solvent or solvent-based paint for subsequent collection by licensed chemical waste collector