



GUIDELINES FOR CONSTRUCTION AND HEALTH AND SAFETY

Technical Specifications for Construction

EP1.3 GENERAL CONSTRUCTION REQUIREMENTS

The following general requirements shall apply:

EP1.3.1 When night work is authorized by the Engineer or his Representative, the Contractor shall provide adequate lighting where work is being executed at night and shall provide and install any additional lighting that the Engineer may require in order to gain access to watch and supervise the Works and carry out any testing and examination of materials.

EP1.3.2 The Contractor shall minimize the pollution of and disturbance to lands, roads and other places on and around the Site. No trees or other vegetation shall be removed except to the extent necessary for the Works. Vegetation removal shall be limited to within 3 m from edge of shoulder.

EP1.3.3 The Contractor shall ensure that access is provided to all properties adjacent to the Site for the duration of the Contract.

EP1.3.4 The Contractor shall take all reasonable precautions:

- In connection with any rivers, streams, waterways, and drains, to prevent silting, flooding, erosion and pollution of the water so as to adversely affect the quality or appearance or cause injury or death to human, animal, fish or plant life.
- In connection with underground water resources (including percolating water) to prevent any interference with the supply to or abstraction from such sources and to prevent pollution, so as to adversely affect the quality or quantity of groundwater.

EP1.3.5 The Contractor shall provide, maintain and remove on completion of construction, facilities to minimize pollution due to the Contractor's operations including, but not limited to, aggregate washing, concrete mixing, grouting, etc.

EP1.3.6 The Contractor shall provide, maintain and remove on completion of construction, adequate fencing or barriers around active zones of construction and all equipment/material staging areas, but without prejudice to his obligations including maintenance of free access for the Employer, the Engineer, other contractors and any other persons entitled to such access.

- EP1.3.7 The Contractor shall be responsible for acquainting himself with and observing all current, applicable laws and regulations.
- EP1.3.8 The Contractor shall acquaint himself with the position of all existing services such as sewers, surface water drains, cables for electricity, internet and telephone, telephone and lighting poles, water mains, and the like before commencing any excavation or other work likely to affect the existing services.
- EP1.3.9 The Contractor shall be held responsible for damage to existing works or services, and shall indemnify the Employer and the Engineer against any claims in this respect (including consequential damages). The Contractor shall be responsible for the reinstatement of the services so affected.
- EP1.3.10 In all cases where such works or services are exposed, they shall be properly shored, hung up or otherwise protected. Special care must be exercised in filling and compacting the ground under mains, cables, etc., so to leave uncovered exposed water meters, stopcock boxes and similar items.
- EP1.3.11 Notwithstanding the foregoing requirements and without reducing the Contractor's responsibility, the Contractor shall inform the Engineer immediately if any existing works or services are exposed, located or damaged.
- EP1.3.12 All costs that may be incurred by the Contractor as a result of programming and coordinating work to enable any alterations to the services to be carried out and the cost of any safety precautions that shall be deemed necessary due to the proximity of the Works to the power lines shall be at the Contractor's expense.
- EP1.3.13 If instructed, upon completion of the contract and, after receiving approval in writing from the Engineer, the Contractor shall take down and remove all structures forming part of his construction sites and/or equipment/materials staging areas and shall arrange for the disconnection of the water supply, remove all drains and culverts, backfill trenches, fill in all latrine pits, soakaways and other sewage disposal excavations, with the exception of items and services that are required to revert to the ownership of the Employer and shall restore the Site and all staging areas, as far as practicable, to its original condition and leave it in a neat and tidy condition. Develop strategy for waste reuse, recycling and disposal.

EP2 SPECIFICATIONS FOR MATERIALS MANAGEMENT

EP2.1 SCOPE

This specification covers requirements for the handling, use and storage of fuels, lubricants and chemicals. Fuels and lubricants have properties that can result in adverse environmental impacts if they are accidentally spilled or improperly handled. The strategies to minimize occurrences of accidentally spillage of these substances are detailed in this section.

EP2.2 APPLICATION

These specifications apply to all Personnel and Contractors involved in the transportation, handling, use and storage of fuels and lubricants and chemicals during construction of the project. It also applies to all personnel who are involved in the transportation, handling, use and clean up of potentially hazardous industrial compounds and reagents. In addition, these specifications also apply to all personnel who are involved in the transportation, handling, use and clean-up of potentially hazardous industrial compounds and reagents.

EP2.4 MANAGEMENT OF CHEMICALS

Chemicals, reagents and industrial compounds that may be used during construction, include: liquid asphalt, including tar and bitumen, cement, solvent cleaning compounds, and calcium for dust control. These materials have properties that may result in adverse environmental impacts if they are spilled, improperly disposed of, or otherwise mishandled.

The following strategies shall be implemented to minimize the potential for accidental release of industrial compounds and reagents into the environment:

EP2.4.1 All personnel handling industrial compounds and reagents shall be properly trained.

EP2.4.2 All industrial compound and reagent storage facilities shall be inventoried and inspected by the Contractor on a weekly basis for spillage and loss.

EP2.4.3 Current and up-to-date Material Safety Data Sheets (from suppliers) for all chemicals used on site shall be located on site at various locations including staging areas.

EP2.4.4 All chemicals used during the construction phase shall be stored in approved containers in designated storage areas.

EP2.4.5 Adequate quantities and appropriate types of spill clean-up materials and equipment shall be kept on site and at each staging area at all times.

EP2.4.6 Spill clean-up kits and supplies (e.g., absorbent materials) shall be inspected by the Engineer Environmental Inspector on a periodic basis to ensure materials are present in

sufficient quantities to deal with potential incidents involving the products described herein.

EP2.4.7 Personnel associated with the transportation, storage and use of the chemicals must be trained to respond to incidents involving these products.

EP2.4.8 Mock spill clean-up exercises shall be conducted at the initiation of construction and every 6 months thereafter for the duration of construction.

EP2.4.9 In the event of a spill, the specified spill contingency plan shall be implemented (refer to the Environmental Management Plan and EP5).

EP2.4.10 All spills shall be reported to the appropriate regulatory authorities as specified by the spill contingency plan.

EP2.4.11 All spills shall be properly contained and cleaned up in accordance with requirements of the specified spills contingency plan. Remediation strategies shall be reviewed with the regulatory authorities as specified.

EP2.4.12 The Engineer Environmental Inspector shall conduct regular inspections and inventories of all industrial compound and reagent storage facilities and observe industrial compound and reagent handling practices on a periodic basis. Operating procedures shall be adjusted to improve practices when improvements are required.

EP3 SPECIFICATIONS FOR WASTE MANAGEMENT

WASTE MANAGEMENT GENERAL

The following specification applies to all waste materials including scrap metal, abandoned vehicles and vehicle parts:

EP3.3.1 All excess materials shall be managed so as to prevent their entry to water bodies and watercourses.

EP3.3.2 All stockpiles will be placed so as not to interfere with watercourses or surface drainage and shall not be placed within 10 m of a watercourse or drain.

EP3.3.3 All waste stockpiles shall be removed within one month of initial placement.

EP3.3.4 The Contractor shall develop a strategy for the reuse, recycling and/or disposal of all waste materials including waste hydrocarbon materials and scrap metal of all kinds at the outset of construction. The strategy shall identify the types of materials that can be reused or recycled and shall specify the manner in which these materials will be removed from the site. The strategy shall also specify those materials that are to be disposed of and shall

identify specific approved facilities where these materials shall be sent, and the manner in which all such waste materials will be removed from the site.

EP3.8 SOLID DOMESTIC WASTES

The effective management and disposal of solid, non-hazardous domestic wastes, including waste food, packaging, office wastes, paper, etc., is essential to reduce the volumes of materials to be landfilled / incinerated. This section identifies strategies for the management and disposal of solid domestic wastes. The domestic waste management strategies apply to all personnel and visitors who are involved in the generation, storage, handling, transportation or disposal of domestic waste materials.

EP3.8.1 Solid waste reuse, recycling, sorting and disposal procedures shall apply to all personnel and shall be undertaken consistent with the waste management strategy to be developed by the contractor as required by EP3.3.

EP3.8.2 The Contractor shall provide sufficient numbers of waste collection receptacles to prevent littering of construction sites and staging areas.

EP3.8.3 All combustible, non-hazardous wastes including food wastes, packaging and paper products can be incinerated at a location approved by the Employer and the Engineer.

EP3.8.4 Measures shall be taken to ensure that hazardous wastes are segregated from, and not incinerated with, the more routine domestic wastes, and handled according to applicable procedures.

EP3.8.5 Ash residue from the incinerator shall be removed from the site for disposal at a designated landfills;

EP3.8.6 Non-combustible domestic waste shall be properly stored in designated containers and should be periodically removed for disposal at a designated landfill site.

EP3.8.7 The Engineer Environmental Inspector shall monitor domestic waste handling practices on a regular basis. Operating procedures should be adjusted to further improve waste minimization and waste handling practices as appropriate.

EP6 SPECIFICATIONS FOR SPILLS MANAGEMENT

EP6.1 SCOPE

These specifications provide procedures for management of spills that may occur during construction activities.

EP6.2 APPLICATION

These specifications apply to all Personnel and Contractors involved in the transportation, handling and use of materials that represent a concern if a spill occurs. Specific Spill Management Plans are provided for:

Diesel Fuel (EP6.3) and Gasoline (EP6.4). Each Spill Management Plan consists of Dangers, Initial Spill Response, Containment, Fire Response, Recovery and Disposal. Reporting requirements are also provided.

These specifications shall be incorporated by the Contractor into an Emergency Response Plan to be submitted to the Engineer prior to construction.

EP6.3 ACTION PLAN FOR SPILLS

EP6.3.1 **Dangers.** Materials exhibiting one or more of the following characteristics are considered to represent a high level of concern or dangers:

- Flammable.
- Slightly toxic by ingestion, highly toxic if aspirated.
- Moderately toxic to fish and other aquatic organisms.
- Harmful to waterfowl.
- Float on Water

EP6.3.2 **Initial Spill Response.** The Contractor shall respond as follows:

- Upon detection of a spill that cannot immediately and safely be contained and removed, notify the police, the Fire Service, the Engineer and the Employer;
- The source of the spill and the direction of flow shall be identified;
- The type of material spilled shall be identified and actions specified to be safe for handling the material shall be taken in an effort to stop the spill at source; if the material cannot be identified, the material should be assumed to be dangerous and direct contact should not be made without prior consultation with appropriate authorities;
- Contain the spill with dyking, barricading or blocking flow by any means available, including the use of available earthmoving equipment.
- Use all available means to prevent the spill from reaching open water.
- Ensure that unauthorized persons do not contact the spilled material;
- Ensure that all sources of open flame and personal smoking materials are extinguished within a minimum of 100 feet of the spill;
- Ensure the health and safety of all personnel and animals in the immediate area; personnel not involved in containment or clean-up activities should be kept away from the area and the area should be kept clear of animals;
- Provide all materials and undertake any actions necessary to ensure that employees, residents, the traveling public, non-essential employees and animals are kept at a safe distance from the affected area, and are provided safe access away from/around the affected area until the area is declared safe by the appropriate authorities.

EP6.3.3 **Containment.** The Contractor shall consult with the Engineer to determine the most appropriate method of containment, recovery and/or disposal. The following general procedures should be applied to contain the spill:

When the spill is on land:

- Excavate a trench or construct a berm downhill of the spill;
- Line trench or berm with pvc/plastic if possible; alternately use absorbent pads;
- Once contained the spill can be pumped to drums or to a storage tank;
- Monitor for seepage and for spent absorbent;
- Where absorbents are used, apply fresh absorbent from the downhill portion of the spill and progress up to the source;
- Place spent absorbent material in drums and seal until suitable disposal arrangements can be made;
- Avoid continued work in the area until the site has been cleaned up;
- Collect samples for material characterization and identification of an appropriate disposal method (in consultation with the Engineer);
- Stockpile excavated soil (for a period not to exceed 30 days unless directed otherwise by regulatory authorities) and cover with a tarpaulin until a suitable disposal method has been prescribed.

When the spills in water:

- Immediately seal off the source of the leak with a berm or ditch, preferably lined with pvc/plastic, to minimize the volume of material that will enter the watercourse;
- If available, an absorbent boom should be placed downstream of the spill entry point;
- Once contained the spill can be pumped to drums or to a storage tank;
- In still or slow moving water, absorbent pads can possibly be used, when available;
- Avoid continued work in the area until the site has been cleaned up;
- Collect samples for material characterization and identification of an appropriate disposal method (in consultation with the Engineer,).

EP6.3.4 **Fire Response** includes the following measures:

- Notify Engineer
- Notify emergency response authorities (e.g., fire, police)
- Use CO₂, dry chemical, foam, or water spray (fog).
- Use fog streams to protect rescue team and trapped people.
- Use water to cool surface of tanks
- Divert the fuel to an open area and let it burn off under control.
- If the fire is put out before all fuel is consumed, beware of re-ignition.
- Contact with strong oxidizing agents (e.g., ammonium nitrate) may ignite the product, or cause it to explode.

EP6.3.5 **Recovery** shall include the following measures:

- Unburned fuel can be soaked up by sand, straw, peat moss, or by commercial absorbents (e.g., Graboil).
- Once contained, if quantities permit, pump to drums or tank;
- If necessary, contaminated soil shall be excavated.
- Fuel entering the ground can be recovered by digging sumps or trenches and pumping from below the water table.
- Diesel fuel on a water surface shall be collected and recovered by booms, absorbents such as Graboil, or collected by a liquid/solid vacuum cleaner.

EP6.3.6 **Disposal:**

- Incineration may be utilized under controlled conditions (obtain permission from the Engineer)
- Storage tanks and drums containing spilled material shall be stored by the Contractor in a safe and secure/restricted area;
- The Contractor is responsible for making all necessary arrangements and disposing of all stored materials with approval of the appropriate authorities.

EP6.4.4 **Fire Response** includes the following measures:

- Notify the Engineer
- Notify emergency response authorities (e.g., fire, police)
- For fires involving large quantities of ammonium nitrate, evacuate and do not attempt to fight fire.
- For fire involving small quantities of ammonium nitrate, use large amounts of water to cool (CO₂, etc., not effective as NH₄N₃ contains oxygen in formula).
- Presence of organic impurities can lower the temperature at which detonation occurs.
- Use CO₂, dry chemical, foam, or water spray (fog).
- Use fog streams to protect rescue team and trapped people.
- Use water to cool surface of tanks.
- Divert the diesel fuel to an open area and let it burn off under control.
- If the fire is put out before all diesel is consumed, beware of re-ignition.

EP6.4.5 **Recovery** shall include the following measures:

- Unburned gasoline can be soaked up by sand, straw, peat moss, or by commercial absorbents (e.g., Graboil).
- Once contained, if quantities permit, pump to drums or tank;
- If necessary, contaminated soil shall be excavated.
- Fuel entering the ground can be recovered by digging sumps or trenches and pumping from below the water table.
- Fuel on a water surface shall be collected and recovered by booms, absorbents such as Graboil, or collected by a liquid/solid vacuum cleaner.

EP6.4.6 **Disposal** may include:

- Storage tanks and drums containing spilled material shall be stored by the Contractor in a safe and secure/restricted area;
- The Contractor is responsible for making all necessary arrangements and disposing of all stored materials with approval of the appropriate authorities.
- Evaporation or incineration may be utilized under controlled circumstances (obtain permission from the Engineer), if aspirated.

EP6.5 REPORTING

The Contractor shall prepare a written report within 48 hours of a spill detailing the events leading up to the spill, as well as all actions taken to advise proper authorities, repair any damage, and recommend changes to construction procedures to avoid a similar problem at another location. The report will be submitted to the Engineer. At minimum, the report shall provide the following details:

- date and time of the spill;
- location of the spill and all affected areas;
- material spilled and estimated quantity;
- cause of the spill;
- actions taken to terminate and contain the spill;
- site clean-up measures taken;
- persons notified; and
- follow-up actions to be taken (e.g. samples sent for analysis, method of disposal, contractor hired, monitoring required, etc.).

EP6.7 TRAINING AND SPILL EXERCISE

EP6.7.1 All members of the Spill Response Team shall be trained and familiar with the spill response resources, including their location and access, the Spill Contingency Plan, the Emergency Response Plan and appropriate spill response methodologies.

EP6.7.2 All personnel at the site shall be familiar with spill reporting requirements.

EP6.7.3 Fuel handling crews shall be fully trained in the safe operation of these facilities, spill prevention techniques and initial spill response, and similarly the staff involved in process and wastewater systems shall be trained in their safe operation of these systems.

EP6.7.4 The Contractor shall conduct a mock spill exercise at the beginning of construction and once every 6 months for the duration of Construction, to test the response of the Spill Response Team to fuel and other spills.

EP6.7.5 A report shall be made by the Engineer Environmental Inspector noting the response time, personnel, and any problems or deficiencies encountered. This report shall be used

to evaluate the ability to respond to spills and determine areas necessary for improvement.

EP10 VEHICULAR, NON-VEHICULAR AND PEDESTRIAN TRAFFIC MANAGEMENT AND SAFETY

EP10.1 SCOPE

The strategies to minimize the potential for large scale traffic slowdown and any adverse effects on the environment, while maintaining safety for all during the construction phase are detailed in this specification.

EP10.2 MANDATE

This section applies to all individuals who are responsible for the transport of equipment, materials, supplies or personnel to and from the Project site during construction. Project personnel responsible for scheduling of construction activities also form part of this management process.

EP10.3 TRAFFIC MANAGEMENT AND SAFETY

To prevent unacceptable levels of traffic slowdown and to reduce the potential effects on various components of the environment due to the construction activity, it is recommended that the following should be accomplished.

EP10.3.1 Construction shall be scheduled in phases.

EP10.3.2 Construction shall be carried out in such a manner to avoid unnecessary traffic bottlenecks.

EP10.3.3 The Contractor shall be required to construct and maintain temporary detour roads adjacent to construction. Where the new construction is exactly on the existing alignment and diversions or deviations are not possible, the Contractor will arrange the construction so as to maintain a single lane of controlled traffic as necessary on any particular portion of the Works.

EP10.3.4 Manually operated “stop/go” signals, if used, shall be of the size and type approved by the Engineer and radio equipped flagmen should be used at all detours. The cost of this traffic control for the period agreed by the Engineer is the responsibility of the Contractor.

EP10.3.5 All schemes for the temporary control of traffic must be submitted to the Engineer for approval beforehand. Depending on legal, environmental or any other considerations, the Engineer may refuse approval to certain schemes involving diversions or deviations on or

off the Site of the road Works and the requirements for such measures must be decided as soon as possible after construction commences.

EP10.3.6 When required, the Contractor shall erect and maintain, all signs necessary for the proper direction and control of traffic. All such signs shall conform to international standards and shall be approved by the engineer before erection.

EP10.3.7 Road blocks/detours shall be installed and signed appropriately, where required, to direct traffic.

EP10.3.8 Safe access for non-motorized vehicles shall be provided through construction areas.

EP10.3.9 Safe access for pedestrian and non-vehicular traffic shall be provided through construction areas.

EP10.3.10 Pedestrian traffic shall be restricted to one side of the road (non-active work area) for safety.

EP10.3.11 Drivers assisting the construction process must hold a valid driver's license, appropriate to the vehicle in question, and have a good driving record.

EP10.3.12 Drivers assisting the construction process shall adhere to the speed limits posted along the length of the roads.

EP10.3.13 Speed limits shall be reduced temporarily and marked accordingly, where required, to provide for the safety of the drivers, pedestrians and workers.

EP10.3.14 Signs and road markers shall be installed to instruct and inform all drivers of local restrictions in a timely and safe manner.

EP10.3.15 The Contractor shall furnish barricades or temporary fencing that may be required for the safety of the public or the security of the Works as required by the Engineer, and erect such barricades or temporary fencing at locations specified by the Engineer.

EP10.3.16 Gross vehicle weights for construction vehicles shall be limited according to road and bridge capacities.

EP10.3.17 Drivers assisting the construction process shall be instructed to be careful at all times, particularly when carrying material whose spillage may be detrimental to the environment.

EP10.3.18 Such drivers shall also communicate the presence of traffic bottlenecks and the resulting time loss to the site engineer; data generated from these reports can be used for traffic management plan revisions where appropriate.

EP10.3.19 The Spill Contingency Plan shall be implemented, as required (Specification EP6).

EP10.3.20 Drivers assisting the construction process shall be trained to perform spill reporting and clean-up procedures for minor spills.

EP10.3.21 Drivers assisting the construction process that demonstrate a lack of safety while driving shall be subject to warning(s) or, as required, additional measures to ensure the continued safety of pedestrians, drivers and workers.

EP10.3.22 The Engineer Environmental Inspector and the Contractor shall be in regular communication and shall monitor the effects of construction on traffic pedestrians, and residents during the construction phase of the project. Operating procedures shall be adjusted to address any unexpected adverse effects.

EP10.3.24 The Contractor shall consult with police force in the area regarding their requirements in the control of traffic and other matters, and provide all assistance and facilities that may be required by such officials, in the execution of their duties.

EP11 SPECIFICATIONS FOR HEALTH, SAFETY AND ACCIDENTS ON THE CONSTRUCTION SITE

EP11.1 SCOPE

These specifications cover the guidelines for health, safety and accidents in construction sites.

EP11.2 APPLICATION

These specifications apply to all Personnel and Contractors involved in construction of the project. The Contractor shall ensure, so far as is reasonably practicable and to the satisfactions of the Engineer, and the Employer, the health, safety and welfare at work of his employees including those of this subcontractors and of all other persons on the site.

EP11.3 HEALTH, SAFETY AND ACCIDENT PROCEDURES

In the execution of his contractual responsibilities, the contractor shall:

EP11.3.1 Ensure the provision and maintenance of Construction sites that are lighted, safe and without risks to health.

EP11.3.2 Ensure the execution of suitable arrangements for ensuring safety and absence of risks to health in connection with the use, handling, storage, transport and disposal of articles and substances.

EP11.3.3 Ensure the provision of protective clothing and equipment (including hard hats and hearing protection for applicable activities), first aid stations with such personnel and equipment as are necessary and such information, instruction training and supervision as

are necessary to ensure the health and safety at work of all persons employed on the Works in accordance with all applicable laws.

EP11.3.4 Designate as Safety Officer of one of the Contractor's senior staff who shall have specific knowledge of safety regulations and experience of safety precautions on similar works and who shall advise on all matters affecting the safety of workmen and on measures to be taken to promote safety.

EP11.3.5 Ensure the provision and maintenance of access to all places on the Site in a condition that is safe and without risk of injury.

EP11.3.6 Provide clean, sufficient and continuous supply of fresh water, both for construction of the Works and for all related facilities at staging areas. He shall undertake all arrangements including pipelines and meters as necessary for connecting to local water mains and the provision of pumps, storage tanks or water conveyance where necessary, payment of all fees and water charges and the satisfactory removal of all such arrangements and provisions on completion of the Works. The water shall be cleared of suspended solids and free from any matter in quantities considered by the Engineer to be deleterious to the work or human health. Water supplied to all the offices, laboratories and houses shall be wholesome and potable.

EP11.3.7 Provide and maintain adequate sanitation, refuse collection and disposal, complying with all applicable laws and by-laws and to the satisfaction of the Engineer, for all sites and related facilities at staging areas.

EP11.3.8 Provide an adequate number of suitable latrines and other sanitary arrangements at sites and areas where work is in progress.

EP11.3.9 Notify the Engineer and emergency response authorities (e.g., fire and police) of all personal injury accidents that could result in lost work hours, and shall submit a report of the details to the Engineer and the Employer as soon as possible after its occurrence.

EP14 SPECIFICATIONS FOR PROTECTION OF HISTORIC AND CULTURAL RESOURCES

To avoid potential adverse impacts to historic and cultural resources, if any, the Contractor shall:

- Protect sites of known antiquities, historic and cultural resources by the placement of suitable fencing and barriers;
- The Contractor will consult with local authorities and appropriate agencies prior to construction works to identify potential historic and cultural sites that may be affected by Project works.
- Not locate construction camps within 500 meters from cultural resources.

- Adhere to accepted international practice and all applicable historic and cultural preservation requirements of the Government of Seychelles, including all appropriate local government entities
- In the event of discoveries of cultural or historic artifacts (movable or immovable) in the course of the work, the Contractor shall take all necessary measures to protect the findings and shall notify the Engineer and concerned District-level and central government level representatives. If continuation of the work would endanger the finding, project work shall be suspended until a solution for preservation of the artifacts is agreed upon.

EP15 SPECIFICATIONS FOR PROTECTION OF BORROW AREAS AND QUARRIES

- The contractor shall ascertain that the owner of the quarry, from which construction materials shall be extracted, has been granted the necessary permit or license of exploitation by the corresponding authority, municipal, departmental or national (cite the law or regulation as the case may be).
- The following mitigation measures shall be generally used to control erosion and other direct impacts at borrow sites and quarries:
 - ✓ the topsoil organic layer, removed to uncover the quarry or borrow-pit, shall be piled up in storage at an approved and convenient location, so that when the exploitation is finished, the organic topsoil shall be reincorporated to its original location; in addition, cover gently sloping or flat borrow sites with topsoil after termination of the use of the site;
 - ✓ shape contour embankments to slow down run-off;
 - ✓ landscape the faces of vertical rocky borrow sites in the process of exploitation; and
 - ✓ provide for conditions for good borrow site management practices in contracts with private site operators.
- The contractor shall prevent fill material from escaping beyond the embankment slope stakes by the construction of toe ditches or by the erection of rock, boulder, earth or log barriers at the toes of embankments or by other suitable means satisfactory to the engineer.