

Traffic Management Plan

ACWA POWER SOLARRESERVE REDSTONE SOLAR THERMAL **POWER PLANT**

> SolarReserve South Africa December 2, 2015

TRAFFIC MANAGEMENT PLAN

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The construction phase of the Project is expected to generate relatively high volumes of traffic thus making it essential to ensure traffic is managed in a manner that facilitates efficiency as well as ensuring the safety of personnel and the local community as well as the receiving environment. The impact expected will not be only limited to the Project Site, but will also require the management of traffic impacts expected along local road networks proposed as access routes to the Project Site.

The purpose of the Traffic Management Plan, is to ensure that traffic is managed in such a manner as to avoid and minimise traffic risks to, and impacts on the health and safety of local communities, any personnel on site and the receiving environment, during routine and non-routine circumstances. The requirements of the Traffic Plan is applicable to all persons working for or on behalf of Contractors during construction and operation which have been appointed to provide vehicles, machinery or drivers for the Project.

GENERAL ITEMS

A copy of the Construction Phase Logistics Plan will be included as a method statement.

A copy of the Traffic Management Plan kept on site by the ECO and will be applicable to all employees working at the Project Site. Subcontractors will also be required to comply with the Traffic Management Plan as issued for the Project.

LICENSING OF VEHICLES

All vehicles used for or on behalf of the Project will comply with the applicable traffic and transport licensing requirements (such as with regard to licensing requirements relating to the transportation of over-sized loads or hazardous materials, including hazardous waste).

All drivers of vehicles used during the Project construction and implementation phases shall have the requisite vehicle licenses to operate vehicles and/or machinery on Site or on any public roads.

All vehicles shall have valid roadworthy certificates and licenses.

Permits such as abnormal load permits will be applied for the EPC Contractor and copies submitted to the ECO for record purposes.

MAINTENANCE ACTIVITIES

All vehicles and machinery used for the Project during Construction and Operations will be maintained on a regular basis and repaired where necessary in order to ensure good working condition. Construction and passenger vehicles will be subject to regular inspections by an appropriately qualified mechanic following the commencement of the Project's construction phase.

All potential road hazards or vehicle defects which may render a vehicle or road unsafe for use will be subject to reporting and an investigation. Vehicles found to be nor roadworthy will not be used for any activities on site or by any personnel until the necessary repairs have been undertaken.

Roads constructed on the Project Site will be kept in good order.

- Road and stormwater management infrastructure on the Project Site will be maintained in accordance with the stormwater management plan as to ensure road safety on Site.
- Vegetation along road borders will be kept short in order to not impede visibility and to enable roads to function as firebreaks.
- Roads shall be treated either with chemical stabilisation or surface wetting procedures in order to mitigate dust impacts.
- If the utilisation of water to limit dust generation on roads is not possible for any reason, an appropriate dust suppressant will be utilised.

ROAD CONSTRUCTION AND USE

Existing roads must be used, wherever possible for providing access to the Project Site and related infrastructure. New internal roads will only be constructed where none exist and the relevant approvals have been acquired, as per the Final Layout Plan for the Project Site. As per the Biodiversity recommendations, multiple track internal roads is not prohibited, except where approved.

Where possible, internal road construction should be restricted to areas already disturbed on the Project Site. Environmental considerations must be taken into account when determining the alignment of internal roads to ensure the minimum amount of damage is cause to natural habitats.

Internal roads will be designed to ensure that (i) surface water run-off changes are avoided where possible, (ii) water velocity is managed to reduce possible erosion risk; and (iii) existing drainage pattern is not altered drastically.

No internal roads are to be constructed in the wetlands and stream, where feasible and duly permitted. Where stream crossings are required, the internal road shall remain in alignment with the existing tracks on site and will be subject to the necessary permits from the CA. If the latter is required the following conditions apply:

- Subject to WUL from the DWS if applicable;
- provision must be made for fauna with respect to migration routes, i.e. culverts;
- Road crossing to be designed as to minimise the impacts on the riparian areas;
- Culverts must be designed so as to allow free flow of water and must be maintained in good working order; and
- Compacted surfaces should be kept as narrow as possible, where possible and equipped with adequate stormwater management facilities.

TRAFFIC MANAGEMENT

Routing and direction of Traffic

Movement of all vehicles to and from the Project Site during construction and operations shall be along designated national, regional and local public roads. The most appropriate route for large Project vehicles (such as trucks and buses) transporting equipment, materials and employees (along public roads) to and from the Site shall be determined by a Traffic Engineer in coordination with the SE and Project Company.

A copy of the approved routes must be maintained on Site together with the Traffic Management Plan by the ECO and CER.

In the event heavy/abnormal loads will be transported to or from the Project Site efforts need to be made to co-ordinate these movements with local traffic authorities well in advance.

The Contractor (EPC and O&M) will be responsible for obtaining any and all permits and authorisation relating to the transportation of heavy/abnormal loads as well as where traffic disturbances will occur. Copies of the permits and authorisations need to be provided to the ECO for record purposes.

The route proposed for the transportation of equipment to and from the Project Site should, wherever possible, try to avoid urban and residential areas, or areas with high pedestrian traffic. No deviation from approved access routes will be allowed, unless roads forming part of the approved routes are closed or inaccessible. In this case, the Contractor will be required to address the route alteration with the relevant CA and amend permits where applicable.

In order to minimise the impact on commuters, construction related traffic will be restricted and where possible not take place during peak morning and afternoon traffic periods.

All conditions with respect to the Conditional Road Access Permit issued for the Project will be implemented by the Contractor. Records hereof will be managed by the ECO and SE.

Site access and traffic

In accordance with the Conditional Road Access Permit, the Contractor shall construct a designated site access to the Project Site to ensure safe entry and exit as well as to restrict access to the Project.

Site access will be clearly sign posted.

The onsite internal and access roads will be subject to road-use safety requirements and will be designed as to reduce all possible impacts traffic may have on neighbouring landowners. The movement of all vehicles within the Project Site must be along designated internal roads, as authorised. Where possible, existing roads will be used.

Vehicular movements on site is restricted to 30km/h for construction vehicles and 40km/h for light vehicles and passenger vehicles. All persons working for and on behalf of the Contractors shall adhere to all speed limits applicable to public roads. Failure to adhere to the prescribed speed limits is an offence and disciplinary action may be taken by Project Company if necessary.

The Contractor is responsible for ensuring appropriate and relevant signage is conspicuously placed at appropriate locations along all access roads, internal roads, and public roads, in consultation with the relevant traffic authorities and the Access Road Permit Conditions to indicate the following:

- Road hazards i.e. loose gravel;
- speed limits;
- turning traffic;
- that caution should be taken by motorists or pedestrians;
- the Site access; and
- no-go areas for vehicles.

TRANSPORTATION OF MATERIALS AND EQUIPMENT

It is the responsibility of the Contractor to ensure:

- Equipment and/or materials transported to or from the Project Site is appropriately secured for transportation purposes.
- Excessive loading/overloading of all vehicles used for or on behalf of the Project is prohibited.
- All drivers employed by or on behalf of the Project shall be appropriately trained and have the requisite licenses.

ROAD SAFETY

Employees Safety

All persons working for or on behalf of the Project, being transported to and from the Project Site shall be safely accommodated in appropriate passenger vehicles.

Transportation of employees on the back of open trucks will be strictly prohibited.

All vehicles will be appropriately maintained at all times and will be prohibited to carry more passengers than the number of persons for whom seating accommodation is provided.

Designated pedestrian routes shall be demarcated where appropriate.

Vehicle and pedestrian safety shall be included in the Induction Training required to be provided by the Contractor.

Drivers shall be adequately trained in the recognition and avoidance of road hazards, vehicle maintenance and safety requirements.

Stakeholder engagement

The traffic safety procedures, transport routes and construction schedules intended to be applied during the construction phase shall be disclosed to the public prior to the commencement of construction activities.

The scope of engagement will be defined in a method statement to be submitted for approval to the ECO and Project Company and will provide information on the routes proposed for construction vehicles, grievance mechanism and emergency procedures.

MONITORING AND REVIEW

The Traffic Plan should be considered a dynamic implementation guide, and is subject to review and revision in order to ensure effective and relevant traffic management principles be implemented throughout the life of the Project.

Construction Phase

During the construction phase, the ECO alongside the SE, need to ensure that the measures implemented for onsite traffic management is relevant. This can be done via quarterly review of the Traffic Management Plan. However, in the event of an incident or accident, an investigation needs to be undertaken in order to determine if the Traffic Management Plan needs to be revised. This needs to be duly recorded and kept as part of the Site Documentation by the ECO.

Operational & Maintenance Phase

During this phase of Project implementation, an annual audit should be suffice by the CER, unless an accident or incident occurred, in which case an investigation will be initiated and the Traffic Management Plan reviewed in order to ensure the appropriate corrective measures is incorporated to prevent similar accidents and/or incidents in the future.

STAKEHOLDER COMMUNICATION

The Construction Phase Logistics Plan will include a section addressing stakeholder engagement to specifically address transportation related impacts that may occur with the conveyance of large scale infrastructure, equipment or materials for the Project. This Method Statement will be approved by the Project Company prior to construction and will be implemented by the relevant Contractor and Project Company dependent on the nature and scope of the required engagement. Copies of all documents referring to stakeholder liaisons need to be kept on record (preferably signed) and maintained. Stakeholders need to be informed of any large scale construction activities in advance and in writing. These communications need to be made available to the ECO during auditing.