

PROPOSED PONGOLA CANDOVER 132 KV POWERLINE

**DRAFT WASTE MANAGEMENT PLAN FOR THE CONSTRUCTION
PHASE**

CONTENTS

	<u>Page No.</u>
1. Description	3
2. Waste Types and Volumes	3
3. Waste Minimisation Plan	3
4. Waste Disposal	4
5. Solid Waste Management on Site	4
6. Subcontractors / Mandataries	6
7. Record Keeping	6
8. Monitoring and Reporting	6
9. General	6

1. DESCRIPTION

This plan/method statement described how general solid, liquid and hazardous waste management at the construction camp site, batching plants and on the servitude will be carried out.

2. WASTE TYPES AND VOLUMES

Based on other similar contracts, the waste type and estimated volumes to be generated over the duration of the contract (9 – 12 months) are presented in Table 1.

Table 1: Estimated Waste Types and Volumes

Waste Type	Waste Volume (tons/month)	Waste Classification
Office kitchen waste	0.05	General Solid Waste
Office paper waste	0.01	General Solid Waste
Office – other waste i.e. packaging, plastic,	0.01	General Solid Waste
Office – printer cartridges	0.005	Hazardous Waste
Litter and domestic waste in construction camp	0.05	General Solid Waste
Scrap Metal	0.5	General Solid Waste
Wood packaging waste	0.5	General Solid Waste
Scrapped line hardware waste	0.2	General Solid Waste
Plastic	0.05	General Solid Waste
Drum and container waste	0.25	Hazardous Waste
Used oil	0.02	Hazardous Waste
Workshop waste	0.02	Hazardous Waste
Sewage	0.1	Hazardous Waste
Gray water	0.05	Hazardous Waste
Hydrocarbon contaminated soil	0.2	Hazardous Waste
Total Generated	2.465	

3. WASTE MINIMISATION PLAN

A Recycling programme will be implemented in the construction camp/laydown area. Based on the above list of waste types and volumes, the intention will be to achieve the following as part of the minimization of waste types and volumes requiring disposal to landfill.

Waste Type	Waste (tons/month)	Waste Classification	Reduced, Re-used or Recycled
Office – printer cartridges	0.005	Hazardous Waste	Recycled
Office paper waste	0.01		
Metal waste	0.5	General Solid Waste	Recycled
Wood packaging waste	0.5	General Solid Waste	Recycled
Scrapped line hardware waste	0.2	General Solid Waste	To be discussed with Eskom
Used oil	0.02	Hazardous Waste	Recycled
Total Recycled	1.235		

The intention is therefore to attempt to achieve a waste to landfill minimization percentage of 50% on this project.

4. WASTE DISPOSAL

The following waste types will be disposed of to landfill.

Waste Type	Waste Volume (tons/month)	Waste Classification	Registered Landfill
Office kitchen waste	0.05	General Solid Waste	GCB+; GCB-, GSB+, GSB-, GMB+, GMB-, GLB+, GLB-
Office – other waste i.e. packaging, plastic,	0.01	General Solid Waste	GCB+; GCB-, GSB+, GSB-, GMB+, GMB-, GLB+, GLB-
Litter and domestic waste in construction camp	0.05	General Solid Waste	GCB+; GCB-, GSB+, GSB-, GMB+, GMB-, GLB+, GLB-
Plastic	0.05	General Solid Waste	GCB+; GCB-, GSB+, GSB-, GMB+, GMB-, GLB+, GLB-
Drum and container waste	0.02	General Solid Waste	GCB+; GCB-, GSB+, GSB-, GMB+, GMB-, GLB+, GLB-
Workshop waste	0.02	Hazardous Waste	H:h or H:H
Sewage	0.1	Hazardous Waste	H:h or H:H
Gray water	0.05	Hazardous Waste	H:h or H:H
Hydrocarbon contaminated soil	0.2	Hazardous Waste	H:h or H:H
Total Generated	0.45		

The Mkuze Landfill is licensed as a GSB- landfill site and the general solid waste generated by the site will be disposed of at this landfill or at the Pongola Landfill which is in the process of obtaining its license.

A hazardous waste skip bin will be provided at the construction site. All hazardous waste generated on the project will be placed into this skip bin which will be removed by EnviroServ for disposal in the H:h cell at the Empangeni Landfill.

5. SOLID WASTE MANAGEMENT ON SITE

A bin for the disposal of empty printer cartridges will be placed in the offices and labeled as such. Once this bin is full it will be sent for recycling. A suitable recycling organization will be identified in the area of the camps.

240 L wheelie bins with lids will be provided around the camp for the disposal of litter and general solid waste.

A 6 m³ skip bin supplied by a reputed hazardous waste company will be provided at the workshop facility for the disposal of all hazardous waste and hydrocarbon contaminated soil.

A 6 m³ skip bin will be supplied for the disposal of scrap metal. The bin will be supplied and removed by a reputable metal recycling organization.

An sump for the containment of oil and oil contaminated water will be established at the Petrusburg camp. When this sump is near full, a reputable, NORA registered oil recycling organization will be contacted to remove the used oil for recycling.

Chemical toilets will be supplied by a reputable company who will remove the contents for disposal at a licensed sewage works.

5.1 Solid General Waste

General solid waste will be generated on the servitude at the at construction camp.

Waste receptacles, 200 l rubbish bins/wheelie bins with lids will be provided at the at the construction camps. All general solid waste will be thrown into these receptacles.

An area will be defined for scrap metal in each camp which will be removed by a scrap metal recycling organisation. Records of such removal will be obtained and maintained.

The skip bins or drums will be covered with tarpaulins or netting or lids respectively, to prevent wind dispersal of waste across the construction site and during transportation to the landfill site.

5.2 Along the power line servitude/construction sites

Each vehicles driver on the powerline servitude will be supplied with suitable thickness black plastic bags or containers (drums) which will be utilized to contain any litter (including organic food wastes) and other inert waste collected from each tower location as that driver leaves the tower.

The drivers will ensure that these receptacles are emptied into the skip or drums/bins at the construction camp at the end of the day.

All litter and other construction waste will be collected from the construction sites at the end of each day. This includes all wire and other metal. Wire may not be left on a construction site overnight for any reason. The metal component will be separated into the scrap metal recycling bin.

Each construction team will be supplied with a sand bucket for the disposal of cigarette butts. The sand bucket will be emptied into the skip bin at the end of each day.

5.3 Hazardous Waste

The hazardous waste generated will be used oil or oil waste from the workshop sump.

1000 l chemical flow bins will be established inside the bund area of the workshops.

Used oil will be disposed of into these bins where it will be stored until an oil recycling company is called to site to remove the oil.

The used oil collection company will be registered with the ROSE Foundation and safe removal and recycling certificates will be obtained.

Other solid hazardous waste will include empty chemical containers, oil rags, oil filters, paint tins, etc. A private hazardous waste contractor will be contracted to supply a hazardous waste skip bin and to remove the waste for disposal at the nearest licensed landfill site. Certificates of safe disposal will be obtained and kept on site ‘

Hydrocarbon contaminated soils that may derive from spills or leaks on site will be disposed of into a skip bin provided by a legitimate hazardous waste contractor who will remove the contaminated material to the appropriately licensed landfill site and provide safe disposal certificates.

5.4 Liquid Waste

The chemical toilets will be supplied and serviced by a recognized service provider. This will include the sewage generated on the servitude. Certificates of service and disposal must be obtained and presented to the Environmental Officer.

6. SUBCONTRACTORS /MANDATARIES

Subcontractors will either:

- make use of the 240 L wheelie bins and EJP-KEC will organize to collect their waste and dispose of it as per the EJP-KEC methods stated above.
- Or provide their own services and submit a method statement of waste removal to the Environmental Officer for approval before moving on to the construction site to carry out their duties. The Environmental Officer will make a note of the waste types generated by the sub-contractors on site and will request proof of the legal disposal of the waste at a licensed landfill site.

7. RECORD KEEPING

The site supervision will keep comprehensive waste disposal records and proof of legal disposal on site and make these available to the environmental officer.

8. MONITORING AND REPORTING

The Environmental Officer will undertake monitoring of the waste disposal facilities and services on a weekly basis using a standard waste management checklist. The Environmental Officer will keep an ongoing, up to date waste reconciliation record to track disposal, recycling against the targeted objective. This information will be maintained on site at all times.

Weekly waste data records accompanied by proof of legal recycling or disposal will be maintained on site at all times and be available for presentation to Eskom staff and any other parties

9. GENERAL

No burning or burying of waste (including vegetation) will be permitted on site (both camps and on servitude) under any circumstances.

Disposal of all wastes will only occur at licensed waste management facilities.