
 <p>education Department: Education PROVINCE OF KWAZULU-NATAL</p>	<p>KZN DOE INFRASTRUCTURE DEVELOPMENT AND MAINTENANCE</p> <p>Environmental Spec for New Contractor</p>	
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Environmental Management Requirements

Prepared by: _____ Date _____
CIVPRO Engineering-JV 15 September 2022

Approvals

Development Bank of Southern Africa (DBSA)

Approved by: _____ Date _____

Distribution List

Table of Contents

1. Environmental Management Requirements	1
1.1 Construction Environmental Management Programme (CEMP)	1
1.1.1 Purpose.....	1
1.2 Environmental Authorisation.....	1
2. Definitions	1
3. The Contractor's Environmental Management Responsibilities.....	3
3.1 References.....	3
3.2 Overview of some key Contractor's Actions and Responsibilities.....	3
3.3 Environmental Method Statements.....	4
3.4 Contractor's Environmental Officer.....	6
3.5 Contractor's Environmental Management Plan	7

Appendices

Appendix A : Main Actions Required by the Contractor for Compliance with the CEMP

Appendix B : Information on Environmental Method Statements (Activity Based)

Appendix C : Environmental Inspections and Audits

1. Environmental Management Requirements

This section describes the main requirements that the Contractor shall comply with during the construction phase of the Project, to ensure that the environment is considered, negative impacts avoided or minimised, and positive impacts enhanced.

The Contractor shall perform the works and all construction activities within the Site and Working areas having due regard to the Construction Environmental Management Programme (CEMP_r) and the Waste and Asbestos Removal Method Statement.

1.1 Construction Environmental Management Programme (CEMP_r)

1.1.1 Purpose

The purpose of the CEMP_r is to:

- Describe how environmental issues and concerns will be managed during the construction phase of the Project.
- Detail the role of the Contractor with respect to the implementation of the CEMP_r for the Project.
- Assist the Contractor to understand the contents of the CEMP_r.
- Provide a set of standards for environmental management during the construction phase.

The CEMP_r is configured as a performance specification to ensure that the Employer and any entities that enter into formal agreements with themselves viz. Consultants, Contractors and Sub-Contractors, achieve an acceptable level of environmental management performance. No advice given, acceptance or approval of method statements, or any other form of communication from the Employer to the Contractor, shall be construed as an acceptance by the Employer of any obligation that thereby absolves the Contractor from achieving any required level of performance. Further, there is no acceptance of liability by the Employer which may result from the Contractor failing to comply with the specification, i.e. under normal circumstances and at all times, the Contractor shall remain responsible for achieving the required levels of performance

1.2 Environmental Authorisation

Based on the assessment of the site and a review of Listing Notices 1, 2 and 3 of the NEMA 2014 EIA Regulations (as amended), it was determined that no Listed Activities are triggered for the project. Thus no Environmental Authorisation was required.

2. Definitions

The following definitions apply to the CEMP_r:

CEMPr	Construction Environmental Management Programme
Construction Manager	The person designated as such by the Engineer and acting in the capacity of an Engineer's Representative, who is responsible for overseeing all on-site construction activities. Works together with the Engineer to ensure amongst other things, that as construction work proceeds, all project environmental management requirements, conditions and specifications are implemented and executed correctly.
Contractor	Means the main Contractor. The definition includes all Sub-Contractors appointed by the main Contractor of his own volition for the execution of parts of the construction operations. Also applies to any other Contractors, engaged from time to time by developer, directly in connection with any part of the construction operations who are not nominated Sub-Contractors to the main Contractor. (The definition may be used interchangeably with "Supplier", <i>mutatis mutandis</i> as required by the context).
Contractor's Environmental Officer	A person appointed by the Contractor and formally accepted by the Employer, responsible for monitoring, checking and reporting on compliance by the Contractor with the requirements and conditions of the CEMPr on site, on a daily basis.
The Employer	Development Bank of Southern Africa (DBSA) on behalf of the KZN Department of Education
The Engineer	The person appointed by the Employer to act as the Engineer for the purposes of the Contract and designated as such in the main contract documentation (CIVPRO Engineering-JV).
Engineer's Representative	A person or persons appointed by the Engineer from time to time, to act as the Engineer's Representative. The Engineer works together with the Engineer's Representative(s) to ensure that construction proceeds in accordance with the requirements and conditions of the relevant contract specifications and deadlines.
Environmental Manager	Works together with the Engineer, the Construction Manager and the Engineer's Representative(s) to ensure that the conditions and requirements of the CEMPr and Method Statements are met

	during construction.
Employer's Environmental Officer	Works with the Engineer, the Construction Manager and/or the Engineer's Representative(s), to monitor, control and report on the implementation of the CEMPr and Method Statements on a day-to-day basis on site, by the Employer's construction team and the Contractors.
Independent Environmental Control Officer	A person outside of the Employer's construction team, who monitors overall compliance with the CEMPr.
Supplier	A person named as such in the Contract Agreement and any legal successors (may be used interchangeably with "Contractor", as required by the context).

3. The Contractor's Environmental Management Responsibilities

3.1 References

The Contractor is advised of the following legislation, regulations, specifications and authorisation conditions that are applicable to this Project. The list shall not be regarded as exhaustive.

- National Environmental Management Act (Act No. 107 of 1998)
- National Environmental Management: Waste Act, 2008 (No. 59 of 2008)
- Environmental Regulations for Workplaces
- Constitution of the Republic of South Africa Act (Act No. 106 of 1996)
- Local Municipality By-Laws – Applicable Sections

3.2 Overview of some key Contractor's Actions and Responsibilities

The Contractor shall comply with the stipulations and provisions of the CEMPr and abide by the Engineer's instructions regarding its implementation. Notwithstanding anything said in any other document relating to this matter, a basic premise when interpreting the meaning and intent of the CEMPr, is that the primary responsibility for physical implementation and execution of the requirements and conditions of the CEMPr on site, is carried by the Contractor. To do this, the Contractor acts through an authorised representative such as a Project Manager, Site Manager or Site Agent.

The CEMPr should form part of the tender process. The Contractor shall sign a Declaration of Understanding and submit the original signed copy to the Engineer prior to the start of construction.

The Contractor shall appoint an Environmental Officer (EO) to ensure compliance with the requirements in the CEMPr. The Contractor, as part of his Tender Document, shall submit the name and CV of the Contractor's EO as well as an Environmental Plan detailing the roles and responsibilities of the position. The Employer's EO will monitor that all of these actions are undertaken and carried out in accordance with the CEMPr. The purpose of the this document, is to ensure that specific important actions required from the Contractor are not overlooked. In this way unnecessary delays may be pre-empted. It ensures that the Engineer and Contractor are aware of these relevant requirements ahead of time. However, it must be noted that this document does not list all the requirements of the CEMPr, but rather serves as a guide as to where specific actions are required before certain activities can commence.

The Contractor shall ensure that office and site management staff, foremen and the general workforce, as well as all Suppliers and visitors to site have successfully attended the Environmental Induction Programme prior to commencing any work on site.

The Contractor shall provide relevant method statements. The Contractor keeps available a copy of all environmental documents on site and ensures that all the personnel on Site (including Sub-contractors and their staff) as well as suppliers are familiar with and understand the specifications contained therein.

The Contractor clears and cleans the Site and Working Areas regularly. Moreover at the end of the Contract, the Contractor shall ensure that everything not forming part of the works is removed from the site and working areas and that all rehabilitation has taken place in accordance with the above mentioned environmental management documentation.

Refer to Annexure A for the Main Actions Required by the Contractor for Compliance with the CEMPr.

3.3 Environmental Method Statements

Throughout the construction of the Project, the Contractor shall compile activity based Environmental Method Statements (see Appendix B), for approval by the Engineer or the Construction Manager and the Employer's Environmental Officer. The Contractor shall submit written Environmental Method Statements to the Engineer or the Construction Manager.

The Environmental Method Statement is a written submission which describes:

- The proposed activity, setting out the plant, materials, labour and method the Contractor proposes using to carry out an activity.
- The potential negative environmental impacts and environmental risks associated with the activity.
- How the impact will be prevented or managed.
- The relevant environmental standards to be met.
- Environmental monitoring to be undertaken and records to be maintained.

The method statement shall also cover applicable details with regard to:

- Construction procedures.
- Materials and equipment to be used.
- Transportation of the equipment to and from site.
- How the equipment/ material will be moved while on site.
- How and where material will be stored.
- The containment (or action to be taken if containment is not possible) of leaks or spills of any liquid or material that may occur.
- Timing and location of activities.
- Description of how potential environmental impacts will be managed.
- Compliance/ non-compliance with the Standard Environmental Specifications.
- Any other information deemed necessary by the Employer's Construction Manager.
- Actions to be taken to mitigate/rectify non-compliance.

The Contractor shall abide by these approved Environmental Method Statements. Any activity covered by or requiring an Environmental Method Statement shall not commence until it has been approved by the Employer's Environmental Officer and the Construction Manager. To ensure that approvals are obtained in good time, the activity based environmental method statement shall be submitted to the Engineer or Construction Manager and Environmental Officer for review and signature at least 20 days prior to the proposed commencement of the activity, or as directed by the Engineer or the Construction Manager. The contractor shall not commence with activities requiring method statements until they have been approved by the Project Manager.

Pertinent Environmental Method Statements shall be submitted as part of the Contractor's tender submission, as outlined in Appendix B.

The Employers Environmental Officer will audit a sample of Environmental Statements each month to monitor, check and control compliance by the Contractors with what is specified and set out in them.

Appendix B gives an explanation of Environmental Method Statements and provides a typical pro forma sheet that shall be filled in and properly completed by the Contractor for activities carried out on site, that require Environmental Method Statements. It is specifically brought to the attention of the Contractor that the range of tasks and skills and level of proficiency required of the Contractor in general and the Contractor's Environmental Officer in particular, shall not be underestimated. The person(s) selected to fulfill the roles must be appropriately qualified and experienced.

3.4 Contractor's Environmental Officer

As stated in section 2.2 above, the Contractor, acting through an authorised representative such as a Project Manager, Site Manager or Site Agent, is responsible for the implementation of the CEMPr on site and shall comply with all the conditions and requirements contained in them. To this end the Contractor shall also appoint an Environmental Officer who reports to the Contractor's authorised representative on site. The role of the Contractor's Environmental Officer is to monitor, control, report and advise the Contractor on action to be taken, to ensure full compliance with the CEMPr. The Contractor shall submit the name and CV of the person that is proposed for the position of Contractor's Environmental Officer for approval, to the Engineer. The Contractor may not commence with construction work on site, until approval has been received for such an appointment.

The Contractor's Environmental Officer will liaise with the Employer's Environmental Officer on site. It will be the responsibility of the Contractor's Environmental Officer to monitor, check and report to the Contractor on whether all the work is conducted according to approved Environmental Method Statements and that the requirements of the CEMPr are implemented correctly and in an acceptable manner on the site. The Contractor's Environmental Officer's tasks will include but shall not necessarily be limited to the following:

- Daily, weekly and monthly inspections of the work area(s) as per schedule. The Contractor is referred to Appendix C for an example of the aspects that will need to be inspected and which aspects will be audited by the Employer's Environmental Officer.
- Preparing activity based Environmental Method Statements.
- Monitoring compliance with the CEMPr and approved Environmental Method Statements.
- Ongoing environmental awareness training of the Contractor's site personnel.
- Reporting and recording of any environmental incidents caused by the Contractor or due to the Contractor's activities.
- Close-out of environmental incidents.
- Attendance at all SHE meetings, toolbox talks and induction programmes.

- Waste Management.
- Ensuring that environmental signage and barriers are correctly placed.
- Taking required corrective action within specified time frame.

The Contractor's Environmental Officer will be expected to submit completed weekly and monthly checklists to the Employer's Environmental Officer.

Should the Contractor's Environmental Officer change from that person identified during either the tender stage, or appointed for the construction period, the Contractor shall submit a CV of a replacement Environmental Officer for approval by the Employer's Environmental Officer and Construction Manager. In the event that the Contractor is required to replace the Environmental Officer, the necessary submissions, approvals and appointment shall be done sufficiently early. No work may carry on until the replacement Environmental Officer has been approved and has taken up the relevant responsibilities on site.

3.5 Contractor's Environmental Management Plan

The Contractor shall prepare and submit with the Tender, a Contractor's Environmental Management Plan. It will typically consist of:

- The Contractor's Organisational Environmental Policy
- Environmental Plan describing environmental management roles and responsibilities for specific staff and personnel who will be employed on the Contract. These would typically include the Contractor's Project Manager, Contractor's Site Manager, Contractor's Environmental Officer and any others which may be relevant. General duties and responsibilities of all other personnel with no specific environmental management roles and responsibilities shall also be stated.
- Activity based Environmental Method Statements.
- CEMPr.
- PES (if relevant).

Appendix A:

Main Actions Required by the Contractor for Compliance with the CEMPr

A.1 Prior to Commencement

The Engineer shall ensure that the requirements below are requested from the Contractor in the Project Construction Contract Document, the Letter of Appointment and any other relevant correspondence with the Contractor, prior to the start of Works, as relevant.

A.1.1 The Declaration of Understanding

The Declaration of Understanding in the Contractors Guideline Document shall be signed and provided by the Contractor as part of his Tender Document.

A.1.2 Environmental Method Statements

Where relevant, an Environmental Management Programme and environmental method statements (activity based environmental method statements), to meet the requirements in the CEMPr and PES, shall be provided by the Contractor as part of the Tender submission. Pro-formas are included for the Contractor's use. The Environmental Method Statements include, but are not limited to the following activities:

- Establishment of construction lay down area
- Hazardous and non-hazardous solid waste management
- Storm water management
- Contaminated water management
- Prevention of marine pollution
- Hydrocarbon spills
- Assembly, operation and dismantling of diesel/petrol tanks and refuelling procedures
- Dust control
- Spoil dumping
- Sourcing, excavating, transporting and dumping of fill material
- Noise and vibration control
- Removal of rare, endemic or endangered species
- Removal and stockpiling of topsoil
- Rodent and pest control
- Environmental awareness training
- Site division (Demarcation of the site)
- Emergency procedures for environmental incidents
- Closure of construction laydown area.
- Removal of unexploded ordnances

Note that sanitation / toilet facilities are managed by the Health and Safety Department and are not covered in this CEMPr.

A.1.3 Appointment of Contractor's Environmental Officer

The Contractor shall appoint an Environmental Officer and submit this appointment, along with a CV and job description of the Environmental Officer to the Employer's Construction Manager and Environmental Officer for their approval. Should the Contractor's Environmental Officer change from that person identified during either the tender stage, or the construction period, the Contractor shall submit a CV of a replacement Environmental Officer for the Employer's Project Manager's approval. No work can proceed until the replacement Environmental Officer has been approved.

A.1.4 Environmental Induction

The Contractor shall ensure that all management, foremen and the general workforce, as well as all suppliers and visitors to site have attended the Induction Programme prior to commencing any work on site. If new personnel commence work on the site during construction, the Contractor shall ensure that these personnel undergo the Induction Programme and are made aware of the environmental issues on site. The Contractor shall ensure that all of their personnel understand the requirements of the EMPR, where relevant to their scope of work.

A.2 During the Construction Period

A.2.1 Copy of the CEMPR and familiarisation thereof

The Contractor shall keep a copy of the CEMPR available on Site. The Contractor shall ensure that all the personnel on Site (including Sub-Contractors and their staff) as well as suppliers, are familiar with and understand the specifications contained in the CEMPR.

A.2.2 Environmental Method Statements (Activity Based)

Additional Activity Based Method Statements which are required during construction shall be submitted to the Employer's Environmental Officer and Construction Manager for approval at least two weeks prior to the commencement of the activity. Environmental Method Statements for emergency construction activities may also be required. The activities requiring Environmental Method Statements cannot commence if they have not been approved by the Engineer or the Construction Manager and the Environmental Officer. The Contractor is provided with an Environmental Method Statement pro-forma which provides details of the minimum requirements to be included in the Contractor's Environmental Method Statement. Contractor's Method Statements that do not comply with those minimum requirements will not be approved.

A.2.3 Environmental method statement awareness

Where applicable, the Contractor's EO shall provide job-specific training on an ad hoc basis when workers are engaged in activities which require Environmental Method Statements. The Contractor's EO shall maintain records of training topics and attendees.

A.2.4 Re-vegetation and rehabilitation

The Contractor shall be responsible for rehabilitating and revegetating all areas to the satisfaction of the Employer's Construction Manager as detailed in the project specifications.

A.2.5 Additional issues to ensure compliance

The list below is a list of some additional issues that the Contractor shall plan for to meet the requirements of the environmental specifications. It is not a comprehensive list but serves as a guide:

- Cement/mortar and concrete batching
- Workshop and maintenance of plant
- Protection of natural fauna and flora
- Protection of historical and archaeological artefacts.

A.2.6 Site clean up for closure

The Contractor shall clear and clean the work and laydown area and ensure that everything not forming part of the Permanent Works is removed from site and that all rehabilitation has taken place in accordance with the Project Environmental Specification. Retention moneys will not be paid until a Site Closure Inspection (conducted by the Employer's EO) has taken place and signed off by the Employer's Construction Manager together with the Contract Completion Certificate.

Appendix B:

Information on Environmental Method Statements (Activity Based)

B.1 General comment

Activity Based Environmental Method Statements are to be completed by the Contractor undertaking the work. The Environmental Method Statement will enable the potential negative environmental impacts associated with the proposed activity to be assessed.

The relevant activity can only commence once the Environmental Method Statement is approved by the Employer's Environmental Officer and Construction Manager. In some instances local authorities may also need to approve the method statements. This will be highlighted in the Project Environmental Specification, where appropriate.

The Contractor (and, where relevant, any Sub-Contractors) shall also sign the Environmental Method Statement, thereby indicating that the works will be carried out according to the methodology contained in the approved Environmental Method Statement.

The Employer's Environmental Officer and Construction Manager, and where relevant ECO, will use the Environmental Method Statement to audit compliance by the Contractor with the requirements of the approved Environmental Method Statement.

Changes to the way the works are to be carried out must be reflected by amendments to the original approved Environmental Method Statement; amendments require the signature of the Employer's Environmental Officer and Construction Manager, denoting that the changed methodology or works are necessary for the successful completion of the works, and are environmentally acceptable. The Contractor will also be required to sign the amended Environmental Method Statement thereby committing to the amended Environmental Method Statement.

This Environmental Method Statement shall contain sufficient information and detail to enable the Employer's Construction Manager and Environmental Manager to apply their minds to the potential impacts of the works on the environment. The Contractor will also need to thoroughly understand what is required in order to undertake the works.

The initial Environmental Method Statements that will be required are listed in the environmental specifications. Others may be requested by the Construction Manager during the Contract.

The time taken to provide a thorough, detailed environmental method statement is time well spent. Insufficient detail will result in delays to the works while the environmental method statement is rewritten to the employer's construction manager's and environmental officer's satisfaction.

The page overleaf provides a pro forma Environmental Method Statement sheet which needs to be completed for each activity requiring a method statement in terms of the CEMPr.

B.2 Activity Based Environmental Method Statement

PROJECT NAME:		DOCUMENT NO:	
PROJECT NO:		DATE:	
CONTRACTOR:		CONTRACT NO:	
PROPOSED ACTIVITY (give title of the Environmental Method Statement and reference number from the EMPr):			
WHAT WORK IS TO BE UNDERTAKEN (give a brief description of the works):			
WHERE ARE THE WORKS TO BE UNDERTAKEN (where possible, provide an annotated plan and a full description of the extent of the works):			
START AND END DATE OF THE WORKS FOR WHICH THE METHOD STATEMENT IS REQUIRED:			
Start date:		End Date:	
DESCRIPTION OF HOW POTENTIAL ENVIRONMENTAL IMPACTS WILL BE PREVENTED OR MANAGED (provide as much detail as possible, including annotated sketches and plans where possible):			
ENVIRONMENTAL STANDARDS (List the applicable Environmental standards to be met)			
MONITORING AND RECORD KEEPING (Describe how the activity will be monitored to ensure the environmental standards are met, as well as the records to be kept)			

B.3 Declarations

B.3.1 Employer's Environmental Officer

The work described in this Environmental Method Statement, if carried out according to the methodology described, is satisfactory to prevent or control environmental harm:

Print Name	Signature	Date
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B.3.2 Person Undertaking the Works

I understand the contents of this Environmental Method Statement and the scope of the works required of me. I further understand that this Environmental Method Statement may be amended on application to other signatories and that Project Owner Environmental Manager and Construction Manager will audit my compliance with the contents of this Environmental Method Statement

Print Name	Signature	Date
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B.3.3 Approving Authority (i.e. the Employer's Construction Manager)

The works described in this Method Statement are approved.

Print Name	Signature	Date
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Appendix C: Environmental Inspections and Audits

C.1 Environmental Inspections and Audits

Environmental inspections and audits are conducted using five basic techniques:

- Interviews with Contractor's staff (including Sub-contractors and suppliers)
- Document review/verification
- Observations
- Monitoring
- Measurement and verification.

This Appendix defines the areas and aspects of the construction site that will be inspected or audited, the frequency of such audits, the auditor and auditee.

It should be noted that the lists are not exhaustive. Each site and work place will have specific issues that will need to be audited at an appropriate frequency.

For each section of the construction project, the auditor and auditee are as follows:

Place	Inspector/Auditor	Auditee	Inspection/audit frequency
Work places	Contractor's EO	Contractor's team (incl. sub-contractors)	Daily Inspection
Construction site (entire area)	Contractor's EO	Contractor's team (incl. sub-contractors)	Monthly
Construction site	The Employer's Environmental Officer	Contractor's EO	Monthly Audit

C.2 Work Place Inspection

The Employer's Environmental Officer will be required to conduct weekly inspections of all work places for which the Contractor is responsible, including but not limited to the following:

- Contractor's camp, recreational and canteen facilities
- Material lay down areas
- Liquid and solid waste storage facilities (general, hazardous, recycling and scrap)
- Workshops
- Oil traps (bundled area)
- Wash bays
- Construction work area

- Spray booths
- Haul roads
- No-go areas
- Storm water drains/channels
- And any other construction areas for which the Contractor's EO is responsible.

At each of these sites, the Contractor's EO will be required on a daily basis to check for the following, where relevant:

By observation:

- Litter
- Separation of solid waste as per system (general, hazardous, recycling, scrap)
- Hydrocarbon spills
- Effectiveness of dust control measures
- Illegal washing out of containers in Stormwater/sewer drains
- Wash bay drainage systems are working
- Correct usage of drip trays
- Effectiveness of oil separators
- Water use and wastage
- Pollution of water resources
- Provision, use and security of toilet facilities
- Any other illegal activities that contravene the CEMPr.

By document review/verification:

- Removal of oil for recycling as per schedule
- Removal of packaging as per agreements with suppliers
- Removal of hazardous waste by specialist Contractor's as per schedule
- Correct placement of environmental signage and posters
- Document board listing emergency numbers, hazmat info sheets, etc.

C.3 Construction Site Audit

The Employer's Environmental Officer will be required to conduct monthly audits of the entire construction site, which may involve more than one Contractor and may include, but not be limited to the following:

- Entire construction site
- Construction site fencing
- Environmentally sensitive areas

- Contractor's camp, recreational and canteen facilities
- Material lay down areas
- Liquid and solid waste storage facilities (general, hazardous, recycling, scrap)
- Workshops
- Oil traps (bundled areas)
- Wash bays
- Quarries and borrow pits used for fill and construction material
- Spoil dumping areas
- Bioremediation site
- Fuel depot and hydrocarbon storage areas
- Construction work area
- Concrete batching plant
- Spray booths
- Haul roads
- No-go areas
- Storm water drains
- And any other construction areas not listed.

At each of these sites the Employer's Environmental Officer will be required to check for the following, where relevant:

By observation:

- Litter
- Separation of solid waste as per system (general, hazardous, recycling, scrap)
- Hydrocarbon spills
- Use of bunding, hard standing and other protection measures
- Illegal dumping
- Effectiveness of dust control measures
- Illegal washing out of containers in storm water/sewer drains
- Wash bay drainage systems are working
- Correct usage of drip trays
- Effectiveness of oil separators
- Illegal use of tracks and off-road driving in no-go areas
- Correct procedures are followed for topsoil removal and stockpiling
- Effectiveness of erosion protection measures
- Excess noise and vibration
- Water use and wastage

- Pollution of water resources
- Any other illegal activities that contravene the EMPR.

By document review/verification:

- All receipts for the collection of old oil, general recycled waste and hazardous waste
- Correct placement of environmental signage and posters
- Document board listing emergency numbers, hazmat info sheets, etc.
- Complete and accurate records of the Contractor's Environmental Management File.

By measurement:

- Amount of water used by each Contractor (where practical)
- Amount of topsoil removed and stockpiled
- Amount of land stabilisation completed
- Area revegetated
- Amount of waste recycled, sent to scrap yard or disposed of to municipal waste handling
- Amount of material treated in the bioremediation site (where relevant).

By monitoring:

- Effectiveness of dust control systems
- Effectiveness of pollution control systems
- Effectiveness of rehabilitation and revegetation programmes
- Effectiveness of erosion control methods
- Effectiveness of noise control barriers.

A site-specific inspection checklist will be provided to the Employer's Environmental Officer prior to site establishment.

C.4 Construction Site and Documentation Compliance Audit

The Employer's Project Environmental Manager and/or an independent environmental auditor and/or the Environmental Controls Officer will conduct quarterly audits of the Project. This may include either the entire construction site or the site documentation systems or both. It may also focus on the activities of either the Contractor or the Employer or both. Such an audit may include, but need not necessarily be limited to the following:

- Site entrance
- Entire construction works area
- No-go areas
- Environmentally sensitive areas

- Liquid and Solid waste storage facilities (general, hazardous, recycling, scrap)
- All workshops
- Refuelling depots
- Contractor's camp area and lay down place
- Any other place which needs to be audited within the construction site.

By observation:

- Litter
- Liquid and Solid waste storage facilities (general, hazardous, recycling, scrap)
- Hydrocarbon spills
- Use of bunding, hard standing and other protection measures
- Illegal dumping
- Effectiveness of dust control measures
- Illegal washing out of containers in storm water/sewer drains
- Wash bay drainage systems are working
- Correct usage of drip trays
- Effectiveness of oil separators
- Illegal use of tracks and off-road driving in no-go areas
- Correct procedures are followed for topsoil removal and stockpiling
- Effectiveness of erosion protection measures
- Excess noise and vibration
- Water use and wastage
- Pollution of water resources
- Provision and use of toilet facilities
- Any other illegal activities that contravenes the CEMPr.

By document review/verification:

- Complaints register is available and up to date
- Environmental Method Statements are signed off and filed correctly and up to date
- All environmental permits are available
- Copy of the EAs is available on site
- Copies of the EMPRs, are available on site
- Copies of all daily, weekly inspections and audits, minutes, incident reports and corrective action reports are filed correctly (Contractor's and Employers Environmental Officer Audits)
- Copies of close-out reports are available

- The monitoring programme (where relevant) is being adhered to and the monitoring results are no more than one month late
- Chains of custody for samples can be provided on request
- Sampling protocols are followed
- Emergency numbers and procedures are clearly displayed
- Photographic record
- Records of Environmental Awareness Training of Contractors and Staff
- Any other documentation necessary to ensure effective environmental management of the site.

By verification (if necessary):

- Spot samples to check water quality (e.g. storm water runoff)
- Map/plan measurements to check areas disturbed/revegetated
- Check dust collection buckets are working
- Check oil separators
- Any other aspect which gives cause for concern
- By interview
- The Employer's Environmental Officer
- The Contractor's Environmental Officer
- Contractor's staff at random.

Specific site audit protocols will be formulated prior to the audits taking place which shall be sent to the Construction Manager and Employer's Environmental Officer one week in advance of when the quarterly audit is scheduled to take place.