

Notsi PV Project

Engineering, Procurement and Construction Contract

Schedule 20 – Project Company's ESG Guidelines

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Acronyms

Table 1: Acronyms

Acronym	Definition
ESG	Environmental, Social and Governance
GIP	Good Industry Practice
FTE	Full Time Equivalents
FAI	First Aid Injury
FI	Fatal Injury
GHI	Greenhouse Gas
GJ	Gigajoule
GRI	Global Reporting Index
HFO	Heavy Fuel Oil
KL	Kilolitres
KPI	Key Performance Indicators
kWh	Kilowatt-hour
LPG	Liquid Petroleum Gas
LTI	Lost Time Injury
MTI	Medical Treatment Injury
RCR	Recordable Case Rate
BBBEE	Broad Based Black Economic Empowerment
ESMS	Environmental and Social Management System
CSI / SED	Corporate Social Investment / Socio-Economic
SEP	Stakeholder Engagement Plan

1. Introduction

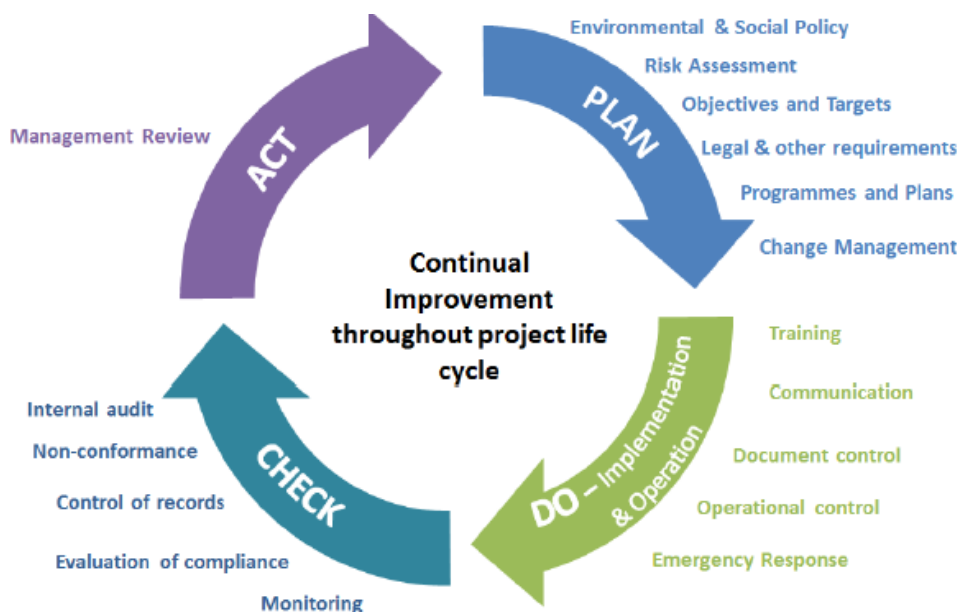
The Contractor is required to develop and implement an ESMS framework (ESMS Manual and associated templates where relevant) in line with the International Finance Corporation (IFC) Performance Standard 1.

For the avoidance of doubt, templates for the information shall be the same as the ones used for providing the same information in the Project (as EDO or HSE reporting). Contractor shall not provide the same information to the Owner in two different formats (meaning duplicating the work).

The purpose of the ESMS is to provide the framework to enable environmental and social (including health and safety) risks to be identified and assessed throughout construction, operations and maintenance activities, and mitigation measures to be developed, implemented and appropriately managed. The ESMS enables compliance with relevant authorizations, legal requirements, corporate standards and IFC Performance Standards in a systematic and structured way.

The framework will comprise of the ESMS Manual, supporting documentation, and technical environmental, health and safety and social (EHSS) management plans/procedures appropriate for the Project. The ESMS will follow a Plan-Do-Check-Act cycle. The diagram below summarises the process of this cycle. The cycle model is based on a process of continual improvement in which an organization is constantly reviewing and revising the system to improve its environmental and social performance.

Figure 1:ESMS Framework Cycle



1.1. ESMS Manual

ESMS Manual containing the elements as required by IFC Performance Standards 1. These elements will include, but not be limited to the following:

- HSSE Policy/ies (Policies on EHS, Human Rights, and HR);
- Organisation;
- Roles and responsibilities;
- Management of change;
- HSSE impacts and risks;
- Compliance Obligations (legal and other requirements);
- Objectives and targets;
- Competence, training and awareness;
- Internal and external communication and reporting;
- Employee Grievance Mechanism;
- Community Grievance Mechanism;
- Control of Documents;
- HSSE Management Plans (see below more detail);
- Emergency Preparedness and Response;
- Incident reporting and investigation;
- Monitoring and evaluation of compliance;
- Non-conformity and corrective and Preventive actions;
- Control of Records; and
- Management Review.

1.2. HSSE Plans and Procedures

Specific HSSE plans/procedures/processes to be developed may include, for example, the following:

- Environmental and Social Management Plan (ESMP)
- Contractor Management
- Hazardous Substances Management
- Emergency Response Plan
- Water Conservation and Storm Water Management
- Wastewater Management
- Waste Management
- Energy Management
- Health and Safety Management
- Responsible Security Management
- Biodiversity Management (incorporating endangered and Protected areas and species, and management of invader Species)
- Air Quality and Climate Change Management
- Noise Management
- Rehabilitation Management Plan (for areas impacted by construction)

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- Cultural Heritage Chance Finds Procedure (for construction)

1.3. Registers / Checklists

- Environmental and Social Impacts and Risk Register (template);
- Waste Register (template);
- Register of Legal and Other Requirements (template);
- Environmental and Social Objectives & Targets Register (template);
- Training Needs Matrix (template);
- Training Programme (template);
- Training Attendance Records (template);
- Master List of Documents (template);
- Document Distribution Record (template);
- Emergency Equipment Inspection List (template);
- Environmental and Social Monitoring Plan (template);
- EHS Site Inspection Checklist/Audit (template);
- Corrective Action Report (template);
- Non-conformance Register (template);
- Master List of Records (template);
- Accident Investigation Report Form (template); and
- Accident Investigation Supervisors Report (template).

2. Scope

2.1. Boundary

This reporting framework applies to the Project during all phases of construction, and is to be implemented and maintained by both the Contractor and the with respect to the specific role fulfilled.

2.2. ESG Indicators

The ESG indicators identified for reporting based on GRI requirements, international standards and good industry practice (GIP) include:

Table 2: ESG Indicators

Category	Indicator
Environment	Environmental Audits
	Energy Consumed
	Energy Produced
	Water
	Effluent
	Waste
	Environmental Incidents
	Environmental Reduction Projects
People	Employee and Contractor Numbers
	Percentage of employees that are HDSAs
	Turnover
	Person Hours Worked
	Percentage of employees that belong to a trade union
	Training Spend
	Transformation
	Local Procurement
	CSI / LED
Health & Safety	Audits / Inspections
	Fatalities

	Lost Time Injuries (LTI)
	Medical Treatment Injury (MTI)
	First Aid Injuries (FAI)
	Occupational Disease and Illness
	Recordable Case Rate (RCR)
	Stop work orders
Social & Governance	Management Systems
	Stakeholder Engagement
	Grievances
	Fines
	Strikes / Work stoppages
	Community Incidents
	Governance

Sections x – x in this standard cover the reporting requirements and definitions for the KPIs.

3. Principles

The aim of the data collection process is to collect and report accurate, reliable and auditable data that provides business value and drives sustainability performance improvements within the Project. The following objectives are critical to be applied:

- Consistent methodologies must be used from year to year;
- Documentation of the methodologies used (e.g. direct measurements, calculations, estimates, etc.) must be clear, complete, and up to date;
- Data submitted must be reproducible and auditable by a third party; and
- The Contractor and Operator must commit to continuous improvement of data quality for the duration of construction and the Services, respectively.

The purpose of this reporting framework is to ensure that ESG performance data is measured, recorded, tracked, and reported in accordance with the following principles:

3.1. Relevance

Data must appropriately reflect the Project and serve the decision-making needs of both internal and external stakeholders.

3.2. Completeness

Within the defined boundaries, account for and report all performance data, providing explanations for any reporting exclusions and deviations as necessary.

3.3. Consistency

Utilise consistent and documented methodologies to allow for meaningful comparisons of performance data over time (including instructions for measurement frequency to ensure comparability). Significant changes to the data, boundary condition, methods, or any other relevant factors should be supported with relevant documentation.

3.4. Transparency

Clearly disclose relevant issues in a factual and coherent manner to ensure a clear audit trail. Information should be provided on any relevant assumptions, and the accounting and calculation methodologies and data sources used for reporting performance data.

3.5. Accuracy

Ensure that data assembled and reported does not contain material errors. The quality of the data should be sufficient to enable stakeholders to make decisions with reasonable assurance as to the integrity of the reported information.

4. Reporting Implementation

4.1. Responsibilities for Data Collection, Collation, and Submission

The collection, processing and submission of data are the responsibility of staff at various levels as defined within the governance structure presented in *Figure 4.1* below. The Contractor / Operator must formally identify and document roles and responsibilities for the reporting of data.

Table 3: ESG Data Reporting and Governance Structure

		Level		
		Project	Project Company	Fund Manager
People	Data collection	Designated Officer in Contractor / Operator		
	Data consolidation	Designated Officer in Contractor / Operator		
	Data review	Contractor's / Operator's Representative	Employer's Representative	
	Data sign off	Contractor's / Operator's Representative	Employer's Representative	ESG Advisor
Systems	Where and how is data collected	Manually		
	What systems are used to capture and consolidate the data	Data is captured onto the ESG Data Collection Template at an asset level	ESG Data Collection Templates are received from each asset	

Processes	When is the data collected	Monthly		
	When and where is the data reported	Quarterly to the Project Company	Quarterly to the ESG Advisor	Quarterly to the fund Board and fund investors

4.2. Reporting Method, Frequency, Review, and Timelines

The Contractor / Operator will compile the data on a monthly basis in the ESG Data Collection Template (templates shall be equal to the ones used in the Project). Site-level data will be reviewed and approved by the Contractor's / Operator's Representative prior to submission. On a quarterly basis the data will be submitted for the previous three months, and cumulatively for year to date, to the Employer's Representative by the 15th day of the relevant month. The Employer's Representative will then submit the data to the ESG Advisor by the end of the relevant month.

Where the Contractor / Operator consistently is not able to receive invoices by the 14th day of the following month it is recommended that the Contractor / Operator estimate the figures until the actual figures are available. Once the invoices are received, the figures should be updated for the previous quarter and the ESG Data Collection Template resent to the Employer's Representative.

4.3. Audit Trail and Document Control

The Contractor / Operator is required to keep an audit trail of source data and records, definitions, calculations, assumptions and references. These will be used to ensure completeness, accuracy and reliability of the data.

Electronic and/or hard copy data records must be maintained and stored in designated and controlled locations.

The Contractor / Operator must ensure that measuring equipment (e.g. electricity or water meters, scales, weighbridge, etc.) is adequately maintained and calibrated at regular intervals, or in accordance with the manufacturer's specifications. Calibration records must be part of the record keeping process.

5. Environment

5.1. Environmental Audits

Definition:

Number of environmental audits or inspections performed, including a description of the type of audit. For example, external ISO14001 management systems audit, legal compliance audit, internal inspection etc.

Measurement unit:

- Total number of audits / inspections
- Description of the audit

Verification Documents and Data Sources:

- Audit / inspection reports

5.2. Energy use

Definition:

Total direct energy use is the sum of all direct energy inputs. This is the amount of direct primary energy consumed. Direct energy inputs are comprised of:

- Coal;
- Petrol;
- Diesel;
- Liquid Petroleum Gas (LPG);
- Natural Gas (Sasol gas/ Egoli gas);
- Heavy Fuel Oil (HFO); and
- Acetylene.

Indirect energy use includes consumption of electricity.

Direct Energy Consumption Reporting Guidance

- *The most accurate form of energy data is energy used as opposed to energy purchased. Use actual consumption data as opposed to purchase orders or stock on hand where possible. This is due to the fact that there may be stockpiles of fuel / coal etc. that are purchased but not actually consumed during the reporting period.*
- *As stated above, the Contractor / Operator must endeavour to report energy used. However, it is recognised that in a number of instances the effort required to obtain energy use is not proportional to the additional level of accuracy achieved. In this case, it is acceptable to use purchased energy as a proxy for consumption for a given period – bearing in mind that this may result in over-reporting.*
- *Over a period of 12 months it is anticipated that the energy purchased data should be very similar to the energy used data. In these instances the Contractor / Operator should report the energy use purchased.*
- *If data is estimated or extrapolated for the year, ensure the calculation methodology is well documented.*

Each energy input is described in detail in the following sub-sections.

5.2.1. Electricity purchased

Definition:

Electricity used by the Project and purchased from an external electricity supplier (e.g. directly from Eskom or a municipality).

Scope:

- Electricity used for on-Site processes.
- Electricity purchased should exclude any self-generated electricity or electricity exported off-Site to third parties.
- Use actual meter readings from the main point(s) of supply by the electricity supplier whenever available (it is not necessary to look at internal meter readings which monitor the amounts used in specific parts of the Project and Site).
- If meter readings are not available, information contained in the electricity supplier's invoice may be used. Usually, the invoice will state kWh of electricity provided. If the invoice states only the charge, then ensure that the charges for other services (e.g. network fees, before using the cost of electricity to calculate kWh of electricity consumed (based on the cost/kWh stated in the invoice)) are subtracted.
- If it is necessary to extrapolate data because the information for the reporting period is not available ensure that the extrapolation method is clearly documented

Measurement unit:

Kilowatt hour (kWh)

Verification Documents and Data Sources:

- Invoices from supplier, e.g. Eskom
- Log book showing internal meter readings
- Calibration certificates

5.2.2. Coal**Definition:**

Total coal used by the Project for the generation of heat energy.

Scope:

Coal used as fuel for combustion purposes for manufacturing processes.

Measurement unit:

Tonnes (t)

Verification Documents and Data Sources:

- Invoices from coal supplier
- Delivery notes
- Purchase orders
- Stockpile survey reports
- Weighbill records
- Calibration certificates
- Coal reconciliation reports (purchased versus used versus stockpiled)

5.2.3. Petrol (Gasoline)

Definition:

Petrol consumed for both stationary and mobile combustion during the reporting period, including for the generation of electric power (generators) and on-Site transportation in vehicles owned or controlled by the Contractor / Operator. Stationary combustion would involve the use of petrol in a generator or stationary piece of equipment, and mobile covers the use of petrol in vehicles and moving pieces of equipment. Petrol consumption for both purposes can be combined into one figure for petrol.

Petrol may also be referred to as Gasoline.

Scope:

- Petrol used in vehicles, such as fleet vehicles owned by the Contractor / Operator must be included.
- Petrol used by contractors appointed to the Contractor / Operator must be included in the figures reported.
- Petrol use must be with respect to recorded volumes consumed.

Measurement unit:

Litres (L)

Verification Documents and Data Sources:

- Purchase orders
- Delivery notes
- Fuel station slips and receipts
- Monthly Petrol card reports (obtained from Finance)
- Flow meter readings (log books retained by stores or at point of issue)

5.2.4. Diesel (Diesel Oil)

Definition:

Diesel consumed and combusted during the reporting period for on and off-Site transportation in vehicles owned or controlled by the Contractor / Operator and for stationary processes including generation of electric power. Diesel for mobile combustion must be reported separately to diesel for stationary combustion. Diesel may also be referred to as diesel oil.

Scope:

- Diesel from vehicles, such as fleet vehicles owned by Contractor / Operator and forklifts used for on-Site transport, must be included.
- Diesel used by contractors appointed to the Contractor / Operator must be included in the figures reported.
- Diesel use must be with respect to recorded volumes consumed.
- Diesel combusted in back-up generators must be included.

Measurement unit:

Litres (L)

Verification Documents and Data Sources:

- Purchase orders
- Delivery notes
- Fuel station slips and receipts
- Monthly Petrol card reports (obtained from Finance)
- Flow meter readings (log books retained by stores or at point of issue)

5.2.5. Liquid Petroleum Gas (LPG)

Definition:

LPG consumed for stationary and mobile processes during the reporting period.

Scope:

LPG consumed and combusted for stationary (e.g. cooking, generators) and mobile (e.g. forklifts) during the reporting period.

Measurement unit:

Kilograms (kg)

Verification Documents and Data Sources:

- Purchase orders
- Invoices

5.2.6. Natural Gas

Definition:

Natural Gas consumed for combustion and utilised as an energy source. Examples include natural gas piped directly to the Site through an external supplier.

Scope:

- Natural gas used as fuel for combustion purposes for manufacturing or heating processes.
- Exclude LPG and other liquid gases as these are reported separately.
- Only report gas which is supplied to the Site and used by the Contractor / Operator during construction activities and the Services.
- The Contractor / Operator use actual meter readings from the main point(s) of supply by the gas supplier whenever available.

Measurement unit:

Cubic meters (m³)

Verification Documents and Data Sources:

- Invoices

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- Log book showing internal meter readings
- Calibration certificates

5.2.7. Heavy Fuel Oil (HFO)

Definition:

Heavy Fuel Oil (HFO) *used for combustion purposes* and utilised as an energy source for processes and utilities during the reporting period.

Scope:

Note that HFO is not a lubricant and is typically used for firing boilers.

Measurement unit:

Litres (L)

Verification Documents and Data Sources:

- Purchase orders
- Invoices
- Flow meter readings

5.2.8. Acetylene

Definition:

Acetylene consumed by the Contractor / Operator for welding, cutting and heating purposes during the reporting period.

Measurement unit:

Kilograms (kg)

Verification Documents and Data Sources:

- Purchase orders
- Invoices

5.3. Energy Produced

Definition:

Total amount and type of direct energy produced by the Project. This reporting indicator is only applicable to those Projects that produce renewable energy.

Measurement unit:

MWh and Type (Solar, Wind, Hydro etc.)

Verification Documents and Data Sources:

- Internal meter readings
- Invoices

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5.4. Water

Definition:

The total water use is the sum of all water drawn into the boundaries of the Site from the following sources for any use over the course of the reporting periods:

- Municipal water
- Water purchased from neighbouring land-owners
- Underground water (e.g. boreholes)
- Surface water (e.g. rivers, streams, lakes, wetlands and dams)

Unit: Kilolitres (KL)

5.4.1. Municipal water

Definition:

Water purchased from public water authorities (e.g. municipal water etc.). This covers potable water that is suitable for drinking or any other water purchased for purposes of construction, operations and maintenance activities at the Site.

Scope:

Potable water purchased from public water authorities or other water utilities used for manufacturing processes and utilities.

Measurement unit:

Kilolitres (KL)

Verification Documents and Data Sources:

- Invoices from municipality (or third party supplier)
- Log book showing internal meter readings
- Records of calibration
- Water balance

Note: Mechanical flow meters must be calibrated and or serviced regularly according to the manufacturers' specifications.

5.4.2. Underground water

Definition:

Groundwater abstracted from wells or boreholes within or external to the Site boundary and used by the Project.

Scope:

Groundwater abstracted from wells or boreholes within or external to the Site boundary and used by the Project.

Pump flow rates are usually metered. In the absence of a meter, consumption may be estimated by multiplying the pump flow rate by the duration of pumping hours.

Measurement unit:

Kilolitres (KL)

Verification Documents and Data Sources:

- Log book showing internal meter readings
- Records of calibration
- Water balance

Note: Mechanical flow meters must be calibrated and or serviced regularly according to the manufacturers' specifications.

5.4.3. Surface water

Definition:

Water abstracted from any surface water body and used by the Project.

Scope:

Water abstracted from streams, lakes and dams and used by the Project.

Measurement unit:

Kilolitres (KL)

Verification Documents and Data Sources:

Log book showing internal meter readings

Records of calibration

Water balance

5.4.4. Total Water Use

Definition:

Water use is the total quantity of water used in construction, operations and maintenance activities at the Site, as well as water used for ancillary purposes such as washing, ablutions and kitchen, but excludes internally recycled water.

Scope:

Water use is the sum of all water inputs. Total water use is not the net difference between the water intakes and discharge.

Measurement unit:

Kilolitres (KL)

Verification Documents and Data Sources:

- Municipal invoices
- Verified meter readings
- Water balance

5.4.5. Total water recycled**Definition:**

Water that has been used in a process that results in a change in water quality and is reused for the same or for another process, which results in a reduction of water withdrawn/purchased.

Total volume includes all water streams that has been used for a second or more time. Percentage recycled is the total recycled water as a percentage of the total water withdrawn / purchased.

Scope:

Includes both water that was treated by the Project prior to reuse and water that was not treated prior to reuse, and used by the Project for a higher, same or lower use in the activities constituting construction, operations and maintenance.

Excludes water that is continually used in closed loop system (such as cooling systems) and is not regarded as waste water within the system.

Measurement unit:

Kilolitres (KL)

Verification Documents and Data Sources:

- Verified meter readings
- Water balance

5.5. Effluent**Definition:**

In the instances where planned or unplanned effluent discharges to the environment occur.

Measurement unit:

Kilolitres (KL)

Verification Documents and Data Sources:

- Formal correspondence that effluent discharge was in terms of legal / permit conditions;
- Copy of report to authorities if the effluent discharge was in contravention of legal / permit conditions;
- Assessment of harm to the environment regardless of whether the discharge was in accordance with the law or permit conditions.

5.6. Waste

Definition:

Any substance that is an unwanted material i.e. that no longer serves a purpose in the production or service delivery of an organisation. Note that waste that has further use for another person or organisation, in that it can be re-used, recycled or recovered, is still defined as waste. This includes, for example, scrap steel, pallets, batteries (sweepings) etc.

Waste materials produced by another organisation and received on Site - for example boiler ash used as a cement extender - is defined as waste until it has been used, recycled or recovered.

Scope

- Reporting on waste] includes reporting on:
- Non-hazardous waste
- Hazardous waste
- Recycled waste

Note: waste does not include wastewater (sewage or effluent) that is discharged from the Site.

All wastes must be identified, and categorised as hazardous or non-hazardous (e.g. in a Waste Register), in order that the quantities can be correctly summed.

Measurement

Waste should be measured in tonnes using a scale or weighbridge at the Site or the destination waste facility. Where this is not conducted the waste must be converted into tonnes using a conversion factor which must be established and documented by the Site. This may be required for the following waste streams:

- Litres of oil
- No. of drums (recycled or reconditioned)
- No. of 6m³ skips containing cardboard
- No. of 240 litre wheelie bins

Conversion factors can be determined by the following methods:

- Using the density of the material (e.g. for oil).
- Determining an average weight of one unit of waste, e.g. determine the weight, in kg, of an empty 210 litre plastic drum and multiply by the no. of units.
- Weigh a sample of the waste for a known volume to determine the density. E.g. determine the weight of 1 x 6m³ skip full of cardboard, and divide by the volume (6m³) to obtain a density in tonnes/skip. Multiply the density by the no. of full skips. Several samples may need to be weighed to determine an acceptable average density where density of the material is likely to vary (e.g. in the case of a full skip of cardboard).

5.6.1. Disposed Non-Hazardous Waste

Definition:

Waste that does not pose an immediate hazard or threat to health or to the environment, and includes domestic waste, building and demolition waste, business waste, and inert waste that is disposed of in a general landfill or incinerated.

Note: Only waste that has been disposed of should be reported on, not waste generated.

Scope:

Any non-hazardous waste generated from manufacturing processes and all other processes on and off Site that is disposed of in a general landfill or incinerated on or off Site.

Typical examples of non-hazardous waste may include:

- Domestic waste
- Green waste
- Wood, paper, plastic, glass, metals (if not contaminated)
- Construction waste

Note that if hazardous and non-hazardous waste is mixed the combined waste is then regarded to be hazardous.

Measurement unit:

Tonnes (t)

Verification Documents and Data Sources:

- Waste manifest documents
- Internal weighbridge records
- Certificates of safe disposal
- Calibration of weighbridge records
- Documented density and weights of bin

Non-hazardous Waste Reporting Guidance

- *Non - hazardous waste records should be clearly documented and retained by the Contractor / Operator.*
- *A methodology for classifying which wastes are non-hazardous together with systems for measuring waste tonnages (e.g. Site weighbridge or weight data provided by the waste disposal contractor) should be documented and retained by the Contractor / Operator.*

5.6.2. Disposed Hazardous Waste

Definition:

Hazardous waste can be defined as a substance that contains organic or inorganic elements or compounds that may, owing to the inherent physical, chemical or toxicological characteristics of that waste, have a detrimental impact on health and the environment.

Any hazardous waste generated from chemical manufacturing processes and all other auxiliary (support) processes on and off Site and disposed of in a registered hazardous landfill.

Scope:

Any hazardous waste generated from processes on and off Site, including from maintenance and administration activities that is disposed of in a registered landfill.

Typical examples of hazardous waste:

- Process wastes (including chemical based wastes), such as sludge, sediment from tanks, out-of-spec product/raw materials
- Boiler ash, hydraulic oil
- Contaminated containers (chemical containers, oil/grease containers, paint, pallets, bags, etc.)
- Medical waste
- Vehicle batteries and oil/grease contaminated material
- Fluorescent tubes
- Contaminated soil (if disposed of)

Measurement unit:

Tonnes (t)

Verification Documents and Data Sources:

- Waste manifest documents
- Internal weighbridge records
- Certificates of safe disposal
- Calibration of weighbridge records

Hazardous Waste Reporting Guidance

- *The rule of thumb to be applied for reporting purposes is that if the waste cannot legally be disposed in a local landfill along with general domestic waste or is not recycled then it should be considered hazardous.*
- *Hazardous waste records should be clearly documented and retained by the Contractor / Operator.*
- *A methodology for classifying which waste is hazardous together with systems for measuring waste tonnages (e.g. Site weighbridge or weight data provided by the waste disposal contractor) should be documented and retained by the Contractor / Operator.*

5.6.3. Recycled Non-hazardous and Hazardous Waste

Definition:

Recycled waste is waste that is separated and processed as a product or raw material. This includes both general and hazardous waste that is re-used, recycled, recovered or otherwise co-processed by other organisations, including recycled paper, plastic, cardboard, glass, steel etc.

Scope:

Waste sent to recycling organisations generated from manufacturing and auxiliary processes.

Products such as drums and pallets that are returned to the suppliers and are used for the same function must not be classified as recycled waste. Only when these items reach their end of life, and are scrapped and recycled, must they be classified as recycled.

If the Contractor / Operator chooses not to engage waste contractors (who will provide tonnages) waste tonnes can be calculated using the number and size of bins collected. Waste densities can be determined by weighing a representative sample of bins.

Therefore weight of waste (tonnes) = Bin size (m³) x waste density (t/m³) x %full x number of collections per year.

Measurement unit:

Tonnes (t), apart from recycled oil which should be reported in litres (l)

Verification Documents and Data Sources:

- Waste manifest documents
- Internal weighbridge records
- Certificates of safe disposal
- Calibration of weighbridge records
- Documented density and weights of bins

Recycled Waste Reporting Guidance

- *Recycled waste records should be clearly documented and retained by the Contractor / Operator.*
- *A methodology for classifying which waste are recycled together with systems for measuring waste tonnages (e.g. Site weighbridge or weight data provided by the waste disposal contractor) should be documented and retained by the Contractor / Operator.*

5.7. Environmental Incidents

Definition:

The number of significant environmental incidents

An incident is deemed significant if it has caused serious or disastrous environmental impact, with medium to long-term effects, requiring significant remediation. The incident may occur on or off Site limits, with impacts occurring within and/or outside the boundary of the Site.

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The incident is deemed to be a contravention of legislation and one which is reportable to the relevant authorities. The incident may involve the serving of a contravention notice, or similar directive by the regulatory authorities.

Scope:

- Number of incidents and description.

Measurement unit:

- Number of incidents and description.

Verification Documents and Data Sources:

- Incident reports
- Contravention notices

5.8. Environmental Reduction Projects

Definition:

Reduction in the amount of energy, water and waste generated through efforts to reduce consumption and improve efficiency.

Measured in both unit savings (MWh, Litres, Tonnes) and financial savings (ZAR).

Scope:

- Energy - The savings will relate to any reductions in primary energy forms consumed which are achieved through specific mitigation programmes (e.g. reduced diesel consumption due to reduced speed limit, electrical energy efficiency projects such as reducing compressed air generation pressure).
- Water - The savings will relate to any reductions in water consumption (all forms; i.e. municipal, underground and surface water) which are achieved through specific resource efficiency programmes (e.g. municipal water displacement through the use of rainwater harvesting, leak repair, recycling, re-use etc.).
- Waste - The savings will relate to any reductions in waste disposal (all forms; i.e. hazardous and non-hazardous) which are achieved through specific waste reduction programmes (e.g. purifying salt water waste on-Site prior to disposal to reduce costs associated with disposal, compacting waste in skip to improve the amount of waste disposed of per skip, waste segregation to reduce waste disposal costs, improvements in recycling programmes etc.).

Reduced consumption from reduced production capacity or outsourcing should not be included in this indicator.

Measurement:

Total amount saved in ZAR and primary consumption units. Units for each of the primary energy sources are:

- Energy (MWh);
- Water (Kilolitres)

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- Waste (Tonnes or Litres)

Conversion factors are included in *Annex A*.

5.9. Greenhouse gas emissions

Definition:

Greenhouse gas (GHG) emissions are the main cause of climate change. GHG emissions include carbon dioxide (CO₂), methane (CH₄), nitrous oxide (N₂O), CFC's, HFC's and sulphur hexafluoride (SF₆).

Scope:

For reporting purposes, GHG emissions are broken into direct and indirect emissions:

- Direct emissions (Scope 1)
 - Direct emissions arising from combustion of fuel for energy within the Project operational boundaries.
- Indirect emissions (Scope 2)
 - Emissions that result from utilities consumed by the Project but generated at sources owned or controlled by another organisation. Scope 2 emissions refer to emissions from purchased utilities such as electricity or steam.
- Indirect emissions (Scope 3)
 - Excluded.

Measurement unit:

Tonnes of carbon dioxide equivalent (tCO₂e)¹.

Overview of process:

The calculation of GHG emissions is based on the conversion of activity data into a carbon dioxide equivalent figure:

Carbon footprint emissions = activity data x emissions factor x global warming potential

Emission factors convert the activity data collected and consolidated by the Contractor / Operator into tonnes of the relevant GHG. Emission factors are presented in specific units, for example:

- Kilograms of CO₂ per kilowatt hour of electricity; and
- Kilograms of CO₂ per litre of petrol/gasoline.

Global warming potentials are applied to non-CO₂ greenhouse gases to convert the result to carbon dioxide equivalent (tCO₂e).

¹ CO₂ equivalent (CO₂e) is the measure used to compare the emissions from various greenhouse gases based on their global warming potential (GWP). The CO₂ equivalent for a gas is derived by multiplying the tonnes of the gas by the associated GWP.

The relevant activity data for the Project's carbon footprint calculation includes the following:

Scope 1 direct emission sources:

- Coal;
- Petrol;
- Diesel;
- Liquid Petroleum Gas (LPG);
- Natural Gas (Sasol gas/Egoli gas);
- Heavy Fuel Oil (HFO); and
- Acetylene.

Scope 2 indirect emissions source:

- Electricity purchased

The process for collecting energy-related activity data is presented in Section 8 of this document

6. People

6.1. Person numbers

Definition:

- Total number of employees, broken down by gender, as per the Contractor / Operator's payroll system.
- Total number of contractors appointed and supervised by the Contractor / Operator during construction, maintenance and operations activities.

For reporting purposes, the total number of employees is the final employee strength as at the last day of the reporting period (i.e., the number of employees on payroll).

Part time employees ought to be reported as 'Full Time Equivalents', or 'FTEs', where 1 824 hours equals 1 FTE, or where assumptions of average number of hours per week could be stated and used. For example, the Contractor / Operator might hire part-time staff for 24-hour weeks, based on a standard that suggests anything more than 24 hours per week would qualify as 'full-time'. Thus a part-timer would equate to 24/40...or 60% of a FTE.

Employees are persons working for the Contractor / Operator on a full-time or part-time basis, who are paid individually a via the Contractor / Operator pay-roll system. Male and female employees must be reported separately.

Contractors are persons working under the Contractor / Operator's supervision i.e. who undertakes work at the Project and Site, but is not directly employed (as an employee) by the Contractor / Operator.

Scope:

Male and female employees and contractors are reported separately.

Measurement unit:

Total number of persons

Verification Documents and Data Sources:

- Payroll
- HR records
- Contractor appointments

6.2. Percentage of employees and Contractors that are HDSA's

Definition:

A purely South African indicator, the number and/or calculated ratio of employees and contractors who are deemed 'Historically Disadvantaged South Africans' ('HDSA', or 'Black'), as defined in relevant Laws. Total number of HDSA employees/contractors divided by the total number of employees/contractors to calculate % HDSA.

Scope:

Employees and Contractors affiliated with the Contractor / Operator with respect to the Project and Site. Employees and contractors are reported separately.

Measurement unit:

Total number of HDSA employees/contractors divided by the total number of employees/contractors.

Verification Documents and Data Sources:

- Payroll
- HR records
- Contracts of appointment

6.3. Turnover OF PERSONS

Definition:

Total number of the Contractor's / Operator's employees or contractors who leave the Contractor / Operator (and their contractors) during the reporting period either voluntarily or due to dismissal, retirement, or death in service during the reporting period and expressed as a percentage of the total employee and contractors utilized in the Works or Services.

Scope:

The Contractors / Operators employees and contractors. Employees and contractors are reported separately.

Measurement unit:

Numbers of persons who have left the Contractor / Operator.

Verification Documents and Data Sources:

HR records

Contracts of appointment

6.4. Person hours worked (Exposure hours)

Definition:

Total number of hours worked by employees and contractors including overtime and training, during the reporting period. Leave, sickness and other absences should be excluded.

Without a time and attendance system, total hours would be equal to sum of each month's total number of employees on payroll at the end of each month multiplied by 152 hours per person. For temporary workers, temporary must first be converted to full time equivalents (FTEs), and then factored accordingly.

Scope:

Employees and contractors are reported separately.

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Measurement unit:

Hours

Verification Documents and Data Sources:

- Time sheets and log books/registers
- Working hours, leave and training reports
- Contracts of appointment

Working/ Exposure Hours Reporting Guidance

- *Where possible actual hours should be recorded from a time and attendance or employee working hour's system.*
- *Where estimates are used (e.g. based on head counts and average monthly hour estimates), the basis of such estimates should be well documented and approved.*

6.5. Percentage of employees who belong to a trade union

Definition:

Total number of the Contractor's / Operator's employees and contractors that are part of a trade union as a percentage of total employees/contractors.

'Freedom of association' is a human/labour right and companies that provide information pertaining to whether or not unionisation is permitted and/or encouraged within the workforce can demonstrate this through disclosing this data.

Scope:

Employees and contractors formally covered by union agreements. Employees and contractors are reported separately.

Measurement unit:

Number of employees and contractors as a percentage of the workforce

Verification Documents and Data Sources:

- HR records
- Contracts of appointment

6.6. Training Spend

Definition:

Total Rand value of expenditures on the Contractor's / Operator's employee and contractor training.

'Training' refers to:

- All types of vocational training and instruction;

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- Paid educational leave provided by the Contractor / Operator for its employees and contractors;
- Training or education pursued externally and paid for in whole or in part by the Contractor/Operator;
- Training on specific topics such as Health, Safety, Environment and Community; this may include induction and planned formal refresher training sessions.

Training does not include:

- On-Site coaching by supervisors such as casual pre-shift briefings;
- Workshops – Professional Development and Industry Initiatives;
- On-Site informal coaching hours; and
- CSI training which would be on initiatives that lead to skills development for external parties, such as local communities.

Scope:

Employees and contractors are reported separately.

Measurement unit:

Rand value on training

Verification Documents and Data Sources:

Training records.

6.7. Transformation

Definition:

For South African companies this indicator represents the current certified Broad Based Black Economic Empowerment (BBBEE) level.

Scope:

South African companies only

Measurement unit:

BBBEE certificate

Verification Documents and Data Sources:

BBBEE certificate from a recognised verification agency.

6.8. Local Procurement

Definition:

Total value of supplies or services procured from local suppliers

Scope:

South African companies only

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Measurement unit:

ZAR

Verification Documents and Data Sources:

- Procurement records
- Invoices.

6.9. CSI/SED

Definition:

Total expenditures during the period on Corporate Social Investment / Socio-Economic Development (CSI/SED) initiatives inclusive of Enterprise Development (ED) reported as a total number and as a % of net profit after tax.

For non-South African operations, report the total Corporate Social Investment figures.

Scope:

Total value in ZAR/USD and as a % of net profit after tax.

Measurement unit:

ZAR/USD

Verification Documents and Data Sources:

Procurement records

Invoices.

7. Health and Safety

7.1. Health and Safety Audits / Inspections

Definition:

Number of health and safety audits or inspections performed, including a description of the type of audit. For example, external OHSAS18000 management systems audit, legal compliance audit, internal inspection etc.

Measurement unit:

- Total number of audits / inspections
- Description of the audit

Verification Documents and Data Sources:

- Audit / inspection reports

7.2. Fatal Injury (FI)

Definition:

A death resulting from an occupational injury regardless of the time between the injury and death. A fatal injury is an instantaneous work-related event or exposure that results in death.

Scope:

Employees and contractors are reported separately.

Measurement unit:

- Total number of persons that died.
- Description of incident

Verification Documents and Data Sources:

- Incident reporting registers
- Occupational practitioner reports
- Incident investigation forms/reports

Fatal Injury Reporting Guidance

- *In the case of a fatal injury occurring during travel between home and the usual place of work, the Contractor / Operator] need not report the fatality unless there is a legal safety regulatory requirement to report the fatality to the Department of Health.*
- *The fatality will be recorded as the date of the incident, and not the date of death.*

7.3. Lost Time Injury (LTI)

Definition:

A LTI occurs when a person is injured in the execution of his/her duties and as a result of this injury is unable to perform his/her *regular* duties for **one full shift or more** on the day following the day on which the injury was incurred, whether a scheduled work day or not.

Typical examples of LTI's include:

- LTIs as a result of transportation activities (e.g. motor vehicles incidents and lifting machines incidents).
- LTIs as a result of a fire/explosion event (e.g. including smoke inhalation).
- LTIs due to materials handling activities (e.g. manual handling of material involving loading, offloading, carrying, lifting and lowering).
- LTIs due to exposure of harmful substances (e.g. inhalation of, or exposure to toxic fumes and/or chemicals).

Scope:

Contractor / Operator employees and contractors are reported separately

Medical classification should be performed by qualified occupational medical practitioners.

Measurement unit:

- Total number of LTIs
- Description of incident

Verification Documents and Data Sources:

- Incident reporting registers
- Occupational Medical practitioner reports
- Incident investigation forms/reports
- Medical reports

Lost Time Injury Reporting Guidance

- *Days lost are calendar days regardless of whether the injured was due at the Site / Project or not on any of those days, and includes scheduled time off (for example, if an injury occurs on a Friday and the injured person is booked off for two days and they return to work on the Monday the two days should still be recorded as a LTI).*
- *Regular duties are those duties associated with the job description or general day-to-day responsibilities of the injured.*
- *Normal daily travel to and from the Project / Site is only considered as being work related if the transportation is owned, hired or contracted by Contractor / Operator.*

- *If an employee or contractor is utilising its own vehicle for work-related business (not including travel to and from work) and is involved in an accident resulting in a LTI, then this should be reported.*

7.4. Medical Treatment Injury (MTI)

Definition:

A medical treatment injury is defined as treatment above and beyond a first aid injury administered by a recognised professional medical practitioner such as a medical doctor, paramedic or nurse.

Typical examples of MTIs include:

- Cutting away dead skin and tissue.
- Infections.
- A cut requiring stitches.
- Second-degree burns.
- Loss of consciousness injury (LOCI)

Scope:

Contractor / Operator employees and contractors are reported separately.

Medical classification should be performed by qualified occupational medical practitioners.

Measurement unit:

Total number of MTIs.

Verification Documents and Data Sources:

- Incident reporting registers
- Occupational Medical practitioner reports
- Incident investigation forms/reports
- Medical reports

Medical Treatment Injury Reporting Guidance

- *Precautionary examinations, such as the taking of X-rays, are not considered to be MTIs. The application of sutures (stitches), or the removal of a foreign body embedded in the eye, are examples of MTIs. The criterion is the treatment, not the examination.*
- *An injury which results from an incident requiring medical treatment. This includes treatment beyond first aid.*
- *Any treatment of an injury which involves medicines usually obtainable only by prescription of a medical professional (e.g. antibiotic) will be classified as an MTI.*

7.5. First Aid Injuries (FAI)

Definition:

The number of first aid incidents and injuries (FAI). These are the least severe of all categories of injury.

A FAI is an injury that can be treated from a first aid box or by a professional medical practitioner or nurse at a medical station and which does not require follow-up medical treatment or medical diagnostics.

In the instance an injured person is transferred to a medical centre, hospital or a doctor, determining the classification of the incident will depend on the treatment given. Whether or not the injured person presents to a medical practitioner – a general practitioner or a thoracic surgeon – is irrelevant in the classification of an injury. The extent of the treatment is what determines the severity of an injury.

Typical first aid injuries include:

- Paper cuts and other minor cuts and bruises.
- The removal of foreign objects by irrigation, tweezers, cotton swabs or other simpler techniques.
- First degree burns.
- Wounds requiring bandages.

Scope:

Contractor / Operator employees and contractors are reported separately.

Measurement unit:

Total number of FAIs.

Verification Documents and Data Sources:

- Incident reporting registers
- Occupational Medical practitioner reports
- Incident investigation forms/reports
- Medical reports

7.6. Occupational Disease and Illness

Definition:

A disease/illness diagnosed by a relevant registered occupational medical practitioner, resulting from exposure to a hazard at the Project / Site or in connection with the Works that is known to result in harm to human health.

Typical examples of occupational diseases and illness include:

- Noise-induced hearing loss
- Respiratory diseases
- Contact dermatitis

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- Heat Stroke
- Post-traumatic stress, if resulting from a work-related incident whilst on duty.

Scope:

Contractor / Operator employees and contractors are reported separately.

Only Occupational Diseases as defined in terms of Schedule 3 of the Compensation for Occupational Injuries and Diseases (COID) Act (see *Annex C*), will be reported as Health Incidents.

Measurement unit:

Total number of occupational diseases.

Verification Documents and Data Sources:

- Incident reporting registers
- Occupational Medical practitioner reports
- Incident investigation forms/reports
- Medical reports

7.7. Recordable Cases

Definition:

Recordable work-related injuries, fatalities and illnesses are those that result in one or more of the following:

- Fatal injuries (FI)
- Lost time injuries (LTI)
- Medical Treatment Injuries (MTI)
- Occupational diseases and illnesses

Scope:

Contractor / Operator employees and contractors are reported separately.

Measurement unit:

Total number of recordable cases

Verification Documents and Data Sources:

- Incident reporting registers
- Incident forms which contain the relevant details of the classification of the incident.

7.8. Recordable Case Rate (RCR)

Definition:

The number of recordable cases per year or 200 000 working/ exposure hours.

Scope:

The RCR of employees and contractors of the Contractor / Operator are reported separately on a twelve month rolling average basis.

Calculating the RCR

$RCR = RC \times 200\,000 / T$

- **RCR** = Recordable Case Rate (number per 200 000 hours).
- **RC** = Number of Recordable Cases (number) i.e. all occupational-related injuries and diseases requiring medical treatment beyond first aid including fatalities (see *Section 7.7*).
- **T** = Total man hours worked, which if not measured can be estimated by $T = E \times H$
- **E** = Number of employees and contractors under own supervision (number).
- **H** = Average hours worked per employee and contractor per year (hours per year).
- **200,000** = The base for 100 full-time equivalent workers working 40-hours per week over 50-weeks per year (200 000 hours per year).

Verification Documents and Data Sources:

- Incident reporting registers
- Time sheets and log books/registers
- Working hours, leave and training reports.
- RCR calculation spread sheets

7.9. Stop Work Orders

Definition:

Number of Stop Work orders issued by the authorities or appropriately appointed or qualified persons due to health and safety non-compliance or incidents.

Measurement unit:

Number of Stop Work orders

Verification Documents and Data Sources:

Notices issued by the authorities and / or appropriately appointed or qualified persons.

8. Social and governance

8.1. Management Systems

Definition:

Existence of an IFC level Environmental and Social Management System (ESMS), including percentage compliance.

Scope:

Additional detail on the requirements of an IFC level Environmental and Social Management System (ESMS) can be found on the IFC website (www.ifc.org). Its level of implementation can be determined by a formal external audit or an internal review.

Measurement unit:

- Yes / No
- % compliance

Verification Documents and Data Sources:

External or internal audit results

8.2. Stakeholder Engagement

Definition:

Existence of a Stakeholder Engagement Plan (SEP) and how many engagements/meetings have been held.

Scope:

The existence of a Stakeholder Engagement Plan (SEP) illustrates whether the Contractor / Operator is formally engaging with all of its stakeholders in a proactive and meaningful manner. The number of engagement meetings held demonstrates progress in this regard.

Measurement unit:

- Yes / No
- Number of engagements/meetings

Verification Documents and Data Sources:

- Documented Stakeholder Engagement Plan
- Meeting minutes

8.3. Grievances

Definition:

Existence of a Community and Employee Grievance Mechanism and the number of grievances reported and resolved.

Scope:

A grievance mechanism is a formal, legal or non-legal (or 'judicial/non-judicial') complaint process that can be used by individuals, workers, communities and/or civil society organisations that are being negatively affected by certain activities and operations as relating to the Project and Site. The grievance mechanism should cater for both employee, contractor and community grievances. Grievances can be justified complaints or enquiries from a member of the public, employees, contractors or the regulator (municipal authorities or national departments) either in writing or orally, concerning perceived environmental, social or governance impacts of a Project.

Measurement unit:

- Yes / No
- Number of community, employee and contractor grievances submitted and resolved (reported separately)

Verification Documents and Data Sources:

- Documented Community, Employee and Contractor Grievance Mechanism
- Meeting minutes

8.4. Fines

Definition:

Number and associated cost of environmental, health, safety or other fines received during the year for offences.

Scope:

If the offence was committed during the previous year but the fine issued in the reporting year, the Contractor / Operator must report the fine during the year that it was paid. Each offence must be suitably described.

Fines are generally accompanied by an official letter which indicates that the Contractor / Operator has broken the law, with a cost penalty associated.

Measurement unit:

Number, cost and description of fines

Verification Documents and Data Sources:

- Issued fines

8.5. Strikes / Work Stoppages

Definition:

Number of formal or informal strikes or work stoppages related to labour issues, including the length of the strike and the financial implication.

Measurement unit:

- The number (if any) of strikes / work stoppages
- Details of the strike, including any financial implications.

8.6. Community Incidents

Definition:

Community incidents or local population disruptions, including a description of the incident and whether there has been any impact on the Project.

Scope:

Number of incidents and description.

Measurement unit:

Number of incidents and description.

Verification Documents and Data Sources:

- Incident reports
- Contravention notices

8.7. Governance

Definition:

Existence of a formal structure to manage ESG issues including the specific committee and how often it meets.

Measurement unit:

- Yes / No
- Name formal committee and number of meetings

Verification Documents and Data Sources:

Meeting minutes

Annex A: Conversion Table

Mass	
1 kilogram (kg)	1 000 grams (g)
1 metric ton	1 000 kilograms (kg)
Volume	
1 liter (L)	0.001 cubic meters (m ³)
1 cubic meter (m ³)	1 000 liters (L)
1 liter (L)	3.785 gallons
Energy	
1 kilowatt hour (kWh)	3 600 kilojoules (KJ)
1 Megawatt hour (MWh)	1 000 kilowatt hour (kWh)
1 mega joule (MJ)	0.001 gigajoules (GJ)
1 gigajoule (GJ)	277.8 kilowatt hours (kWh)
Other	
kilo	1 000
mega	1 000 000