NORTHAM
PLATINUM LIMITED

Sustainable Development (SD) Data Reporting Guideline Document

Approval

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Version Control

Version number	Revision Date	Revision description
1	May 2010	First Draft
2	January 2011	The following sections were updated: • Definition of Shifts Lost • Definition of Land Use • Definition of Training and Education • Procedure for data collection for Potable Water • Definition and procedure for data collection for Recycled Water The following KPIs were added: • HDSA's in Management • HDSA Procurement • Women in Mining • Adult Basic Education and Training

3	March 2018	The following sections were updated:
		• Introduction
		• Reporting requirements
		• Safety
		  ○ Definition of and data collection process for Fatalities and Fatal Injury Frequency Rate
		  ○ Definition of and data collection process for Lost Time Injuries and Lost Time Injury Frequency Rate
		  ○ Definition of and data collection process for Reportable Injuries and Reportable Injury Frequency Rate
		  ○ Definition of and data collection process for Total Injury Frequency Rate
		  ○ Definition of and data collection process for Lost Days due to Occupational Injury
		  ○ Definition of and data collection process for Stoppages (Section 54)
		• Health
		  ○ Definition of and data collection process for Noise Induced Hearing Loss
		  ○ Definition of and data collection process for Tuberculosis

Version number	Revision Date	Revision description
		○ Definition of and data collection process for Medical surveillance ○ Data collection process for Voluntary Counselling and Testing (VCT) ○ Data collection process for Anti-retroviral treatment (ART) • Labour Practises ○ Definition of and data collection process for Total Workforce (including contractors) ○ Definition of and data collection process for employee turnover ○ Definition of and data collection process for Historically Disadvantaged South Africans in Management ○ Definition of and data collection process for Women in Mining ○ Definition of and data collection process for Collective bargaining ○ Definitions and data collection process for Training and Education, which has been retitled Skills Development ○ Definition of and data collection process for Adult Education and Training. ○ HDSA Procurement has been moved to Section 6, *Social and Labour Plan Expenditure*. • Environment ○ Definition of and data collection process for Total energy consumption ○ Definition of and data collection process for Water use. ○ Definition of and data collection process for water discharge by quality and destination. ○ Definition of and data collection process for Materials used. ○ Definition of and data collection process for Waste. ○ Definition of and data collection process for Environmental incident reporting. ○ Definition of and data collection process for Land Use. ○ Definition of and data collection process for Closure and rehabilitation costs.

Version number	Revision Date	Revision description
		○ Definition of and data collection process for Sulphur dioxide emissions ○ Definition of and data collection process for Greenhouse gas emissions The following KPIs were deleted: • Mine instigated stoppages • Heat Stroke • Energy saved The following KPIs were added: • Social and Labour Plan Expenditure ○ Human Resourced Development Expenditure ○ Mine Community Development ○ House Ownership • Environment ○ Energy intensity ○ CO_2e emissions intensity ○ Non-compliance with environmental laws and regulations
4	September 2020	The following sections were updated: • Introduction • Reporting requirements ○ Responsibilities for Data Collection and Reporting ○ Reporting • Safety ○ Definition of Fatalities and Fatal Injury Frequency Rate ○ Definition of Lost Time Injuries and Lost Time Injury Frequency Rate ○ Definition of Reportable Injuries and Reportable Injury Frequency Rate ○ Definition of Total Injury Frequency Rate • Labour practises ○ Definition of Total Workforce ○ Definition of Employee Turnover ○ Historically Disadvantaged South Africans changed to Historically Disadvantaged Person's ○ Definition of Women at Mining ○ Definition of Collective Bargaining • Social and Labour Plan Expenditure

Version number	Revision Date	Revision description
		○ Definition of Human Resources Development expenditure ○ Definition of Mine Community Development ○ Housing changed to Accommodation and Living conditions ○ Preferential procurement changed to Enterprise and Supplier Development • Environment ○ Definition of Water Use ○ Definition of Water Discharge by Quality and Destination ○ Definition of Waste Generated ○ Definition of Environmental Incident Reporting ○ Definition of Closure and Rehabilitation Costs ○ Definition of Greenhouse Gas Emissions
5	November 2020	The following indicators were added: • Direct Economic Value Generated and distributed ○ Payments to Government The following definitions were updated: • Environment ○ Definition of Land Leased for farming purposes was added

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1. Introduction

1.1. Purpose

To ensure consistent, complete and accurate reporting of data throughout the organisation, Northam has compiled this Sustainable Development (SD) Data Reporting Guideline document ("*SD Guideline*"). The SD Guideline sets out the minimum reporting requirements for SD performance disclosed in the Annual Integrated Report. It defines the scope of such reporting; the various data items involved; and the frequency of reporting.

Northam's SD performance disclosures are prepared in accordance with the Global Reporting Initiative (GRI) Sustainability Reporting Standards (GRI Standards)[1]. The definitions and guidelines described below are based on the GRI Standards and incorporate regulatory requirements as appropriate. The SD Guidelines do not describe every indicator in the GRI Standards but describe those indicators which are material to Northam's operations.

This guideline also provides for reporting compliance to elements of the Broad-Based Socio-Economic Empowerment Charter for the South African Mining and Minerals Industry, 2018 ("Mining Charter, 2018") in accordance with the South African Mineral and Petroleum Resources Development Act, 2002 ("MPRDA").

In addition to this, the SD Data Collection Sheet (an excel-based tool) has been developed in conjunction with this guideline document as a default tool for collating and managing SD data. The SD Data Collection Sheet allows for aggregation of data from site level to corporate head office.

1.2. Scope

The SD Guidelines apply to Northam's Zondereinde, Booysendal and Eland mines ("Operations"), and includes all Mining, Concentrator, Smelter and Base Metal Refinery operations as well as administrative, residential and recreational areas within the mining right area.

The elements of the data in the SD system should mature over time to reflect current sustainable development challenges and learnings, as well as changes in legislation and SD reporting requirements.

[1] https://www.globalreporting.org/standards/

2. Reporting Requirements

2.1. Accuracy and Completeness of Data

SD performance data must be accurate and complete. Completeness requires that all sources of data within the scope of the parameter of the KPI data are included, and not left out based on insignificance. Accuracy is a function of the measurement or calculation protocols.

2.2. Responsibilities for Data Collection and Collation

The collection, collation and, capture and submission of data is the responsibility of the KPI process owner on site. Before the data is submitted to the Executive responsible for the key performance area (Sustainability; Health, Safety and Environment; or Human Resources) for reporting purposes, it will be internally checked for quality control purposes by the relevant KPI site process owners, including (but not limited to) the:

- Environmental Coordinator (EC) / Senior Environmental Officer (SEO);
- Chief Safety Officer (CSO);
- Medical Practitioner (MP);
- Occupational Medical Practitioner (OMP);
- Safety, Health, Environment and Quality (SHEQ) Manager;
- Human Resources Manager (HRM);
- Payroll Manager;
- Learning and Development Manager;
- Financial Manager (FM); and
- Engineering Manager (EM) or Plant Superintendent.

While the Operations' General Manager; Operations Executive and Chief Executive Officer assume responsibility for SD Performance data, the Audit and Risk Committee will ultimately be responsible for sign-off of the SD data at year end, as prescribed in the King IV Corporate Governance Codes.

2.3. Quality control

Internal reviews of KPI data in the SD Data Collection Sheets should include, but not be limited to, analytical reviews to identify potential information gaps (completeness checks) and information outliers or (validity and accuracy of information). All supporting documentation, on which reported KPI is ultimately based, must be maintained at site and available during the internal review.

2.4. Reporting

Monthly board reports are generated by the operations which include a selection of SD performance KPIs discussed. The SD Data Collection Sheet must be populated monthly for the cost period and submitted on a quarterly basis to the Executive responsible for the relevant key

performance area for review and approval. Group SD performance is then collated annually from data provided by the operations for inclusion in the Integrated Annual Report, which is prepared for the financial year period from 1 July to 30 June.

2.5. Audit Trail

To ensure that reported SD performance data is accurate and complete, internal as well as external audits may be conducted on a sample of KPIs and related SD disclosures. The audit process will rely on interviews, testing of systems and data, and examination of appropriate supporting documentation and evidence. The aim of the audit process is to obtain comfort that:

- The KPI scope and definition applied at a site level aligns with the SD Guideline;
- Reported KPI performance is complete and accurate of reported KPI performance; and
- Collation of SD performance data complies with organisational internal systems, processes or controls aimed at reinforcing data reliability.

KPI process owners are required to maintain copies of the SD Guideline, which provides KPI definitions and data collation processes, as well as documentation relating to any calculations, assumptions or conversion factors used in the calculation of KPI performance data.

3. Safety

3.1. Fatalities and Fatal Injury Frequency Rate

Definitions:

Fatality: Any employee, contractor or contractor employee or visitor who is involved in an incident whilst performing their duties at the Zondereinde, Booysendal or Eland operations[2] and who sustains terminal work-related injuries[3] shall constitute a Fatality. Fatalities arising as a result of commuting incidents are only included where the transport has been provided by the organisation.[3] If an employee is incapacitated for a period prior to expiration, this will require revising the injury status from a Lost time Injury (LTI) or Reportable Injury (RI) to a Fatality.

Fatality Injury Frequency Rate (FIFR): The number of work-related employee and contractor fatalities while working at the Zondereinde, Booysendal or Eland operations multiplied by 1,000,000 and divided by the total number of contractor and employee hours worked for the reporting period.

Hours worked: Total number of hours worked by employees, contractors or visitors to site at the Zondereinde, Booysendal or Eland operations, including overtime and training, during the reporting period. This number excludes leave, sickness and other absences.

Work-related injuries: injury arising from exposure to hazards at work. Examples of incidents which result in injuries but are not considered work-related include, but are not limited to, a worker:

- Suffering a heart attack which is unconnected with their duties.
- Being involved in an accident commuting between home and site where transport is not provided by the organisation or where driving is not part of their normal duties.
- Having an epileptic seizure unconnected to their duties at work.[3]

Cause of Incident: The cause / agency of the incident which resulted in the work-related fatality or injury, categorised based on Accident or Dangerous occurrence classification codes[4] relevant to the Zondereinde, Booysendal and Eland operations. The categories include but are not limited the following:

- Fall of ground
- Slip and fall
- Machinery, tools and equipment (portable tools and equipment)
- Machinery, tools and equipment (power tools)

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[2] *GNR 93 of 15 January 1997 published in terms of Mine Health and Safety Act 29 of 1996 (MHSA Regulations), Regulation 23.1(a) and 23.1(b).*

[3] *GRI Standards: reporting requirements for Disclosure 403-9 (work-related injuries), 2018*

[4] *Item 12 and Item 13 in DMR December 2007 revision: South African Mines Reportable Accidents Statistical System (SAMRASS) Codebook for Mines*

- Transportation / trackbound
- Loading equipment
- Scraper winch installations
- Mono rope / rail installations
- Mechanical loaders / trackless
- Lifting equipment
- Drilling equipment
- Other transportation
- Manual handling of material / minerals
- Burning and scalding
- Splinters
- Ignition, air pocket
- Inundation / drowning / water
- Conveyance (Cage)
- Electricity
- Heat / sickness / gassing / smoke
- Material cars
- Falling material / rolling rock
- Foreign body

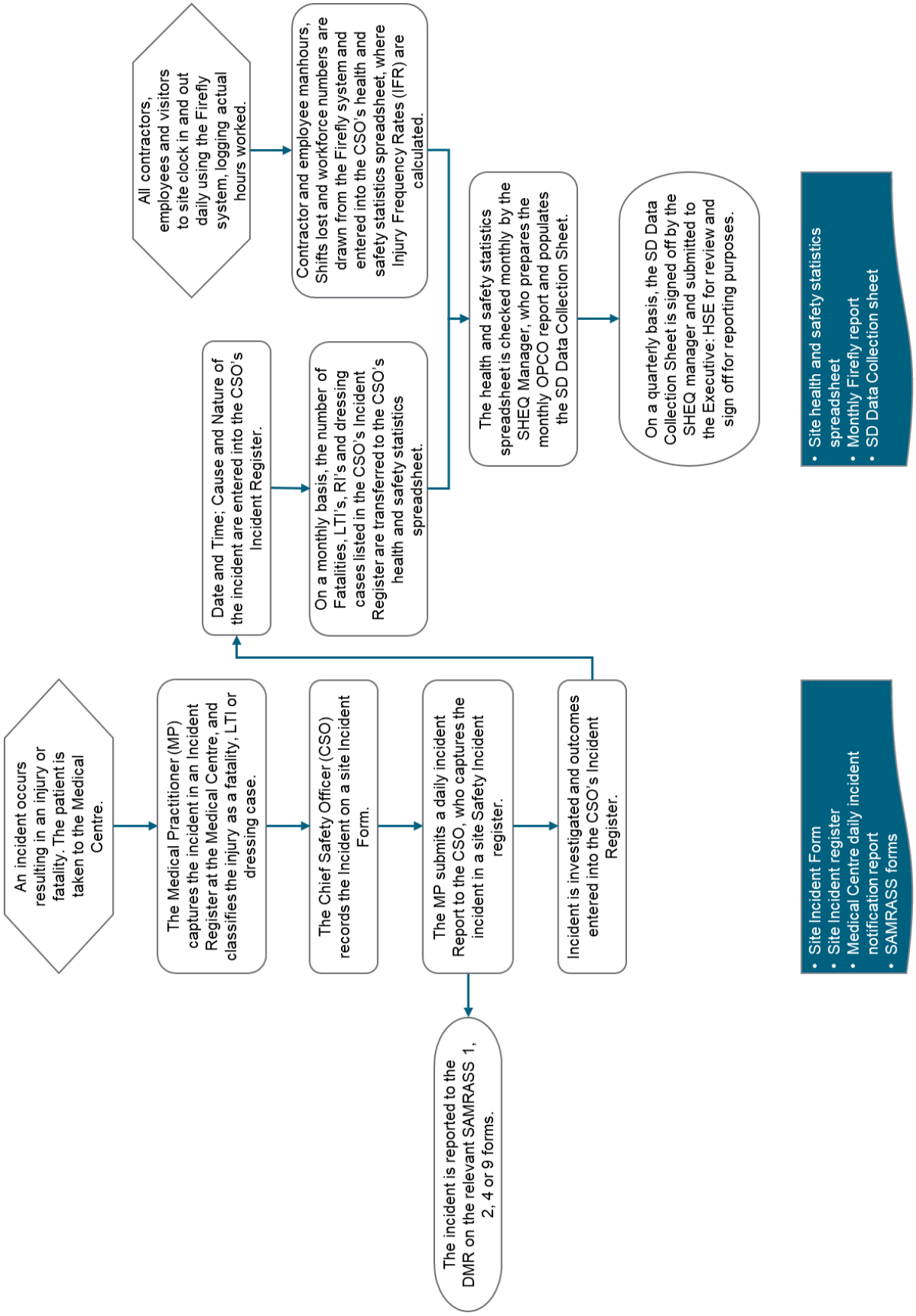
Time of Incident: The exact time (hours and minutes) of the accident or dangerous occurrence resulting in the fatality.

Accident shift: The number of fatal accidents for each shift (i.e. morning or day shift, afternoon and night shifts).

Measurement units:

- Number of work-related fatalities.
- FIFR per 1,000,000 hours worked.
- Number of each cause of incidents resulting in a fatality.
- Time of Accident.
- Accident Shift.

Data collection process overview:



3.2. Lost Time Injuries and Lost Time Injury Frequency Rate

Definition:

Lost Time Injury (LTI): A work-related employee or contractor injury confirmed by an appointed medical practitioner (MP), resulting from an incident while on duty at the Zondereinde, Booysendal or Eland operations, which incapacitates the injured person from attending work or performing their normal or similar work duties on the next calendar day,[5] regardless of the injured persons next rostered shift. LTI's include:-

- Fatalities[6] and injuries defined as Reportable Injuries (RI - see Section 3.3 below).
- Where an employee or contractor requires further treatment due to complications arising from an injury originally classified as a non-lost time injury and is unable to return to work or perform their normal or similar duties.
- Where any employee or contractor is required to undergo treatment or observation longer than 24 hours following loss of consciousness or incapacitation while on duty due to an incident which resulted in:
    - heat stroke or heat exhaustion,
    - oxygen deficiency,
    - inhalation of fumes or poisonous gas, or
    - electric shock or electric burn incidents.[7]
- LTIs arising as a result of commuting incidents are only included where the transport has been provided by the organisation.[6]

Lost Time Injury Frequency Rate (LTIFR): The number of work-related employee and contractor LTIs multiplied by 1,000,000 and divided by the total number of employee and contractor hours worked.

Work-related injuries: injury arising from exposure to hazards at work. Examples of incidents which result in injuries but are not considered work-related include, but are not limited to, a worker:

- Suffering a heart attack which is unconnected with their duties.
- Being involved in an accident commuting between home and site where transport is not provided by the organisation or where driving is not part of their normal duties.
- Having an epileptic seizure unconnected to their duties at work.[6]

Cause of incident: The cause / agency of the incident which resulted in the work-related fatality or injury, categorised based on Accident or Dangerous occurrence classification codes[8] relevant to the Zondereinde, Booysendal and Eland operations. The categories include, but are not limited to, the following:

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[5] *MHSA Regulations, Regulation 23.1(e)*

[6] *GRI Standards: reporting requirements for Disclosure 403-9 (work-related injuries), 2018*

[7] *MHSA Regulations, Regulation 23.1(c)*

[8] *Item 12 and Item 13 in DMR December 2007 revision: South African Mines Reportable Accidents Statistical System (SAMRASS) Codebook for Mines*

- Fall of ground
- Slip and fall
- Machinery, tools and equipment (portable tools and equipment)
- Machinery, tools and equipment (power tools)
- Transportation / trackbound
- Loading equipment
- Scraper winch installations
- Mono rope / rail installations
- Mechanical loaders / trackless
- Lifting equipment
- Drilling equipment
- Other transportation
- Manual handling of material / minerals
- Burning and scalding
- Splinters
- Ignition, air pocket
- Inundation / drowning / water
- Conveyance (Cage)
- Electricity
- Heat / sickness / gassing / smoke
- Material cars
- Falling material / rolling rock
- Foreign body

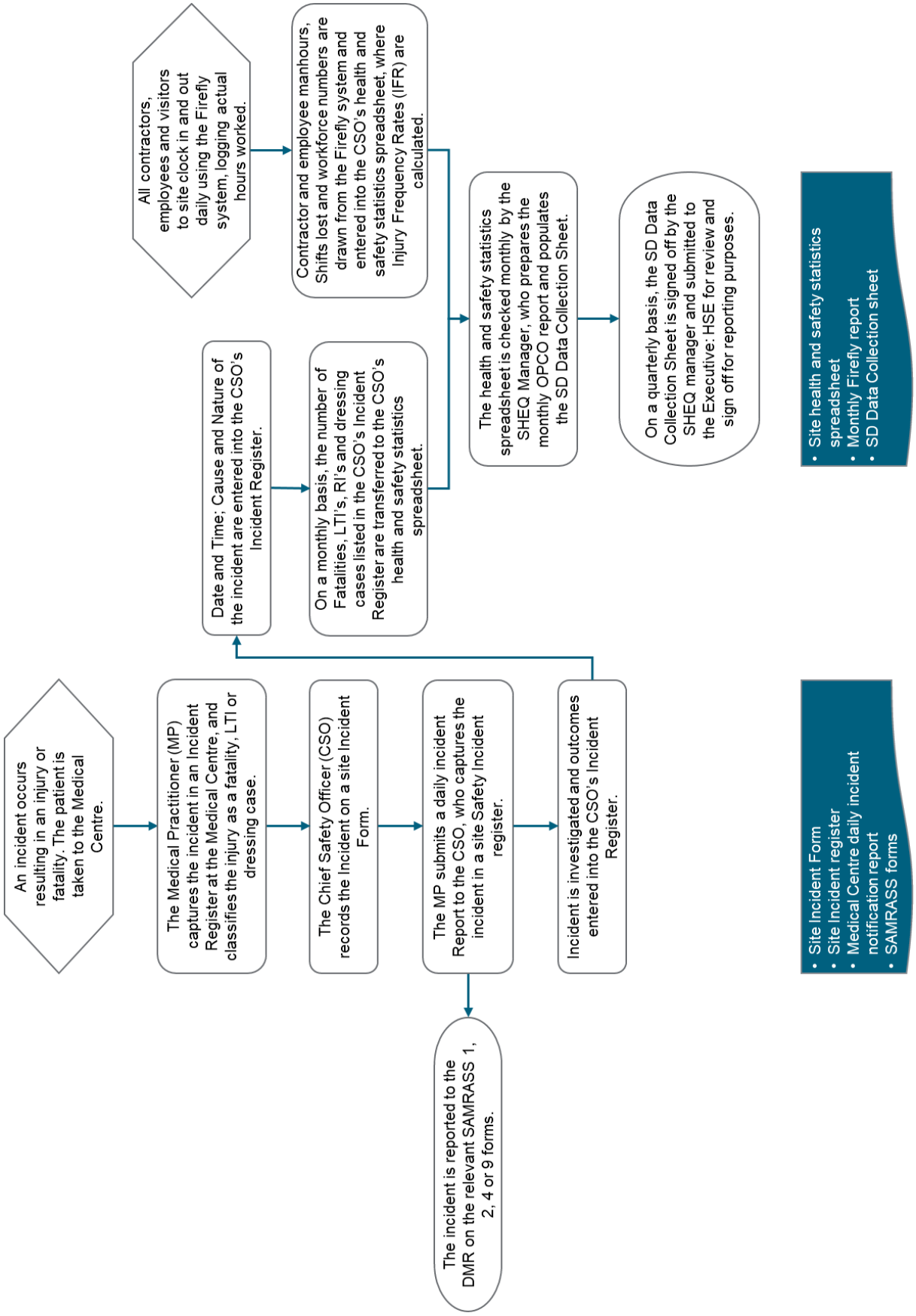
Time of incident: The exact time (hours and minutes) of the accident causing the LTI.

Incident shift: The number of LTI incidents for each shift (i.e. morning, afternoon and night shifts).

Measurement Units:

- Number of work-related LTIs.
- LTIFR per 1,000,000 hours worked.
- Number of each cause of incidents resulting in an LTI.
- Time of Accident.
- Accident Shift.

Data collection process overview:



3.3. Reportable Injury Frequency Rate

Definition:

Reportable Injury (RI): A work-related employee or contractor injury resulting from an incident at the Zondereinde, Booysendal or Eland operations which either incapacitates the injured employee from performing that person's normal or a similar occupation for a period totalling 14 days or more, or which causes the injured person to suffer the loss of a joint, or a part of a joint, or sustain a permanent disability.[9] RIs arising as a result of commuting incidents are only included where the transport has been provided by the organisation.[10]

Reportable Injury Frequency Rate (RIFR): The number of work-related employee and contractor Reportable Injuries multiplied by 1,000,000 and divided by the total number of contractor and employee hours worked.

Work-related injuries: injury arising from exposure to hazards at work. Examples of incidents which result in injuries but are not considered work-related include, but are not limited to, a worker:

- Suffering a heart attack which is unconnected with their duties.
- Being involved in an accident commuting between home and site where transport is not provided by the organisation or where driving is not part of their normal duties.
- Having an epileptic seizure unconnected to their duties at work.[10]

Cause of incident: The cause / agency of the incident which resulted in the work-related RI, categorised based on Accident or Dangerous occurrence classification codes[11] relevant to the Zondereinde, Booysendal and Eland operations. The categories include, but are not limited to, the following:

- Fall of ground
- Slip and fall
- Machinery, tools and equipment (portable tools and equipment)
- Machinery, tools and equipment (power tools)
- Transportation / trackbound
- Loading equipment
- Scraper winch installations
- Mono rope / rail installations
- Mechanical loaders / trackless
- Lifting equipment
- Drilling equipment
- Other transportation

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[9] *MHSA Regulations, Regulation 23.1(d)*

[10] *GRI Standards: reporting requirements for Disclosure 403-9 (work-related injuries), 2018*

[11] *Item 12 and Item 13 in DMR December 2007 revision: South African Mines Reportable Accidents Statistical System (SAMRASS) Codebook for Mines*

- Manual handling of material / minerals
- Burning and scalding
- Splinters
- Ignition, air pocket
- Inundation / drowning / water
- Conveyance (Cage)
- Electricity
- Heat / sickness / gassing / smoke
- Material cars
- Falling material / rolling rock
- Foreign body

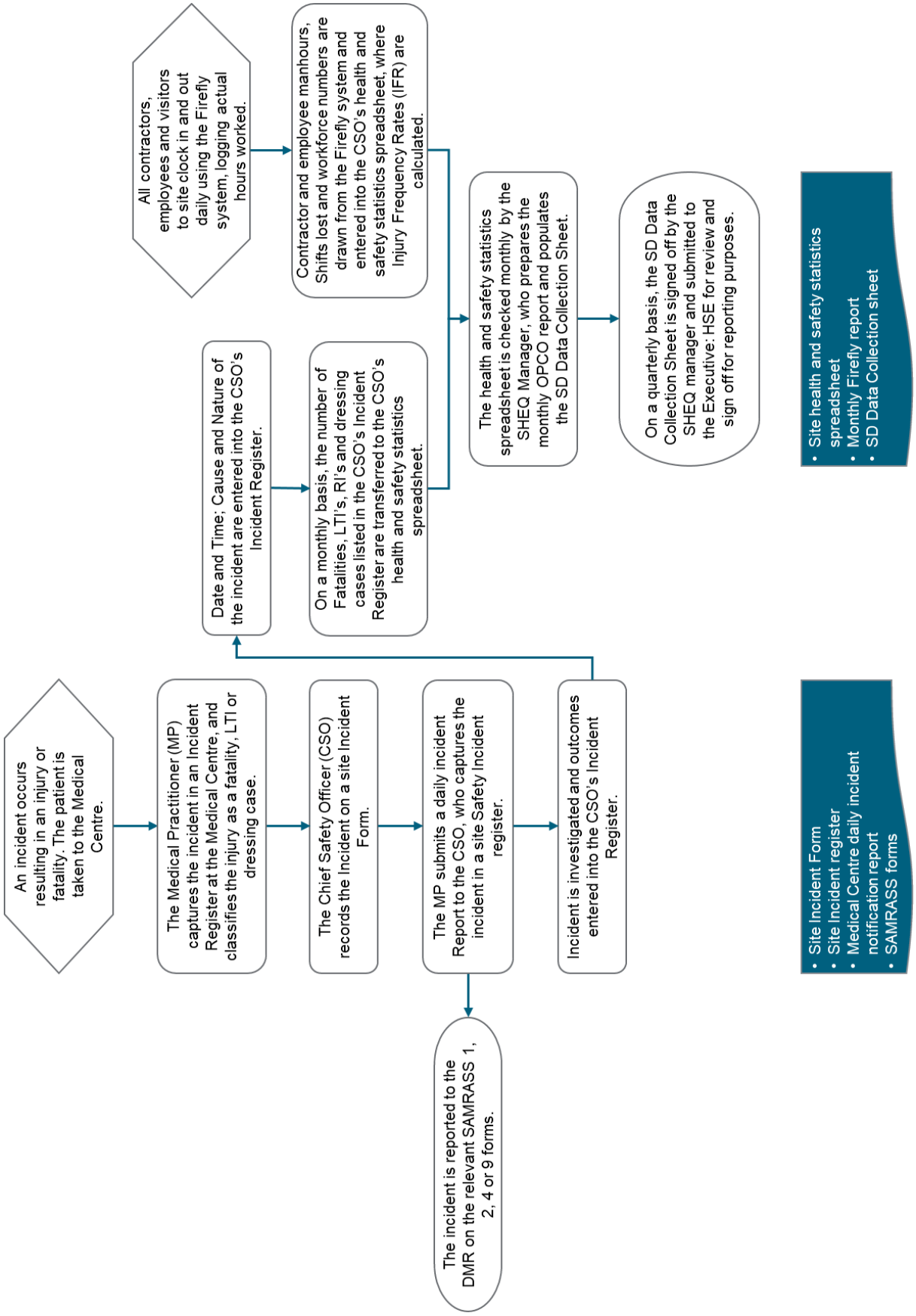
Time of incident: The exact time (hours and minutes) of the incident causing the RI.

Incident shift: The number of RI Incidents for each shift (i.e. morning, afternoon and night shifts).

Measurement Units:

- Number of work-related Reportable Injuries.
- RIFR per 1,000,000 hours worked.
- Number of each cause of incidents resulting in an RI.
- Time of Accident.
- Accident Shift.

Data collection process overview:



3.4. Total Injury Frequency Rate (TIFR)

Definition:

Dressing Case: A work-related employee or contractor injury resulting from an incident at the Zondereinde, Booysendal or Eland operations that is such that the injured person can return to performing their normal duties on their next scheduled shift. This includes first aid cases, where the injured is / may be treated at a first aid station or a medical treatment case.

Total Injury Frequency Rate (TFIR): The sum of all work-related employee and contractor Fatalities, LTIs and Dressing Case injuries multiplied by 1,000,000 and divided by the total number of contractor and employee hours worked.

Work-related injuries: injury arising from exposure to hazards at work. Examples of incidents which result in injuries but are not considered work-related include, but are not limited to, a worker:

- Suffering a heart attack which is unconnected with their duties.
- Being involved in an accident commuting between home and site where transport is not provided by the organisation or where driving is not part of their normal duties.
- Having an epileptic seizure unconnected to their duties at work. [12]

Cause of incident: The cause / agency of the incident which resulted in the work-related injury, categorised based on Accident or Dangerous occurrence classification codes[13] relevant to the Zondereinde, Booysendal and Eland operations. The categories include, but are not limited to, the following:

- Fall of ground
- Slip and fall
- Machinery, tools and equipment (portable tools and equipment)
- Machinery, tools and equipment (power tools)
- Transportation / trackbound
- Loading equipment
- Scraper winch installations
- Mono rope / rail installations
- Mechanical loaders / trackless
- Lifting equipment
- Drilling equipment
- Other transportation
- Manual handling of material / minerals
- Burning and scalding
- Splinters

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[12] *GRI Standards: reporting requirements for Disclosure 403-9 (work-related injuries), 2018*

[13] *Item 12 and Item 13 in DMR December 2007 revision: South African Mines Reportable Accidents Statistical System (SAMRASS) Codebook for Mines*

- Ignition, air pocket
- Inundation / drowning / water
- Conveyance (Cage)
- Electricity
- Heat / sickness / gassing / smoke
- Material cars
- Falling material / rolling rock
- Foreign body

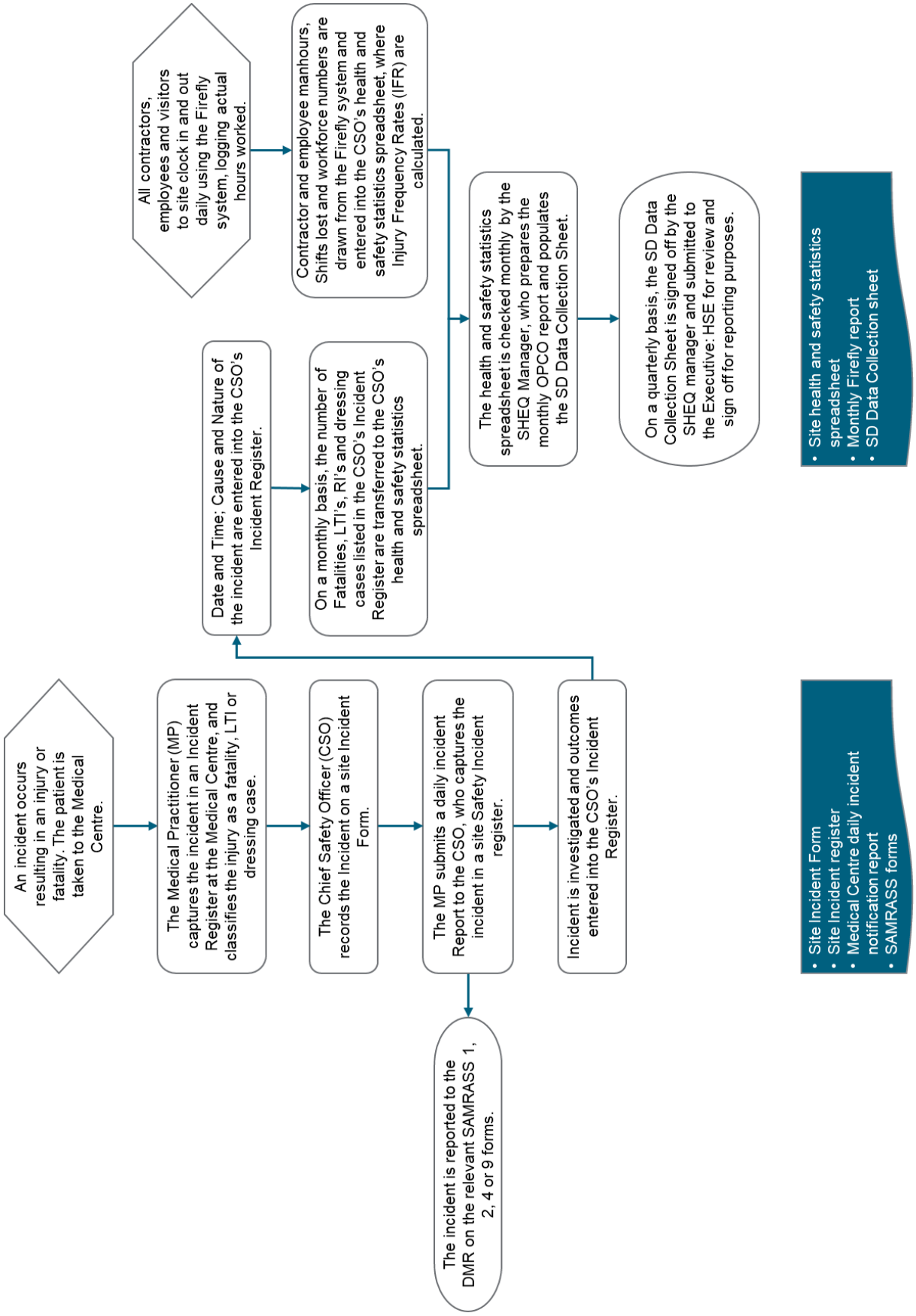
Time of incident: The exact time (hours and minutes) of the incident which resulted in the injury.

Incident shift: The number of incidents for each shift (i.e. morning, afternoon and night shifts).

Measurement Units:

- Number of dressing cases.
- Total number of work-related Injuries.
- TIFR Incidence Rate per 1,000,000 hours worked.
- Number of each cause of incidents resulting in an Injury.
- Time of Accident.
- Accident Shift.

Data collection process overview:



3.5. Lost days due to occupational injury

Definition:

Lost days due to occupational injury: Number of accumulated calendar days incurred following a n incident which results in an employee or contractor LTI as defined above in **Section 3.2** arising from work-related injuries sustained at the Booysendal, Zondereinde or Eland operations.

- Lost days will accumulate until the employee or contractor's return to normal duties or their disability has been finalised with Rand Mutual Association (RMA) or any other Compensation Commissioner.
- Lost days will begin to accumulate from the next calendar day where an employee or contractor, after having returned to normal duties, is deemed unfit as a result of an old injury.

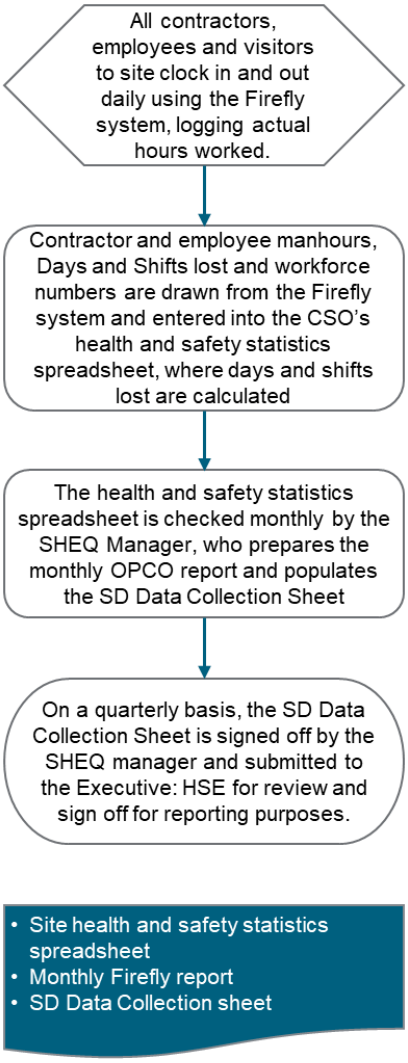
Total number of shifts lost due to occupational injury: Total number of employee shifts lost due to occupational injuries. This excludes shifts lost due to occupational illnesses including Noise Induces Hearing Loss (NIHL), Tuberculosis or Pneumoconiosis.

Reasons: Sick Leave, Accident Leave.

Measurement Units:

- Total Number of Days Lost due to occupational injury.
- Total Number of Shifts Lost due to occupational injury.

Data collection process overview:



3.6. Section 54 Stoppages

Definition:

Number of stoppages directed by DMR: The total number of stoppages resulting from an instruction issued by a mining inspector.[14]

Reasons: Reasons given for stoppages (i.e. a narrative).

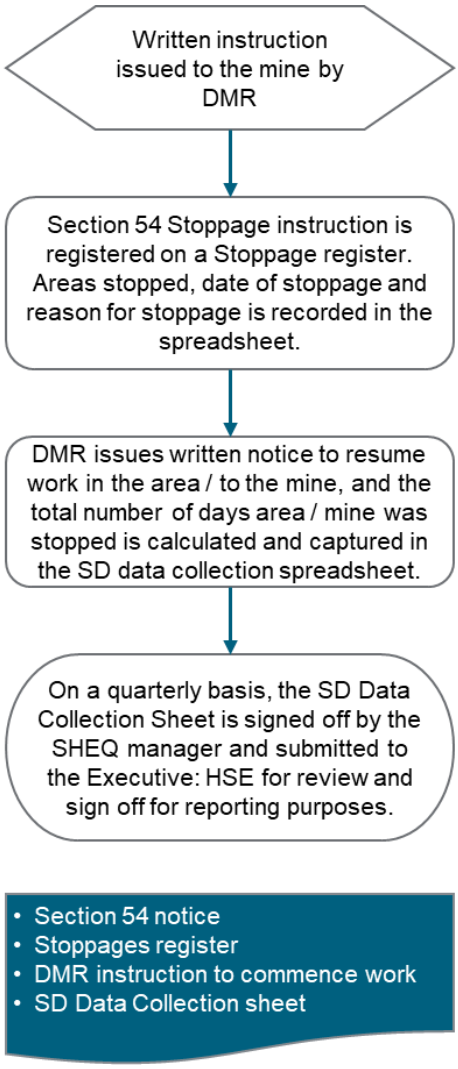
Number of significant stoppages: The number of stoppages for the reporting period in which either a stoping or development section was stopped for at least one full shift.

Measurement Units:

- Number of stoppages.
- Duration of stoppage in days.

[14] *Issued in terms of Section 54(1) of the MHSA*

Data collection process overview:



4. Health

4.1. Noise Induced Hearing Loss (NIHL)

Definition:

*Excessive noise: C*ontinuous A-weighted sound pressure level, normalised to an eight-hour working day or 40 hour working week, equal to or exceeding 85 dBA to which an employee or contractor at the Zondereinde, Booysendal or Eland operations is exposed[15], which has the potential to adversely affect health.

NIHL: Impairment of an employee's hearing due to exposure to excessive noise, at the Zondereinde, Booysendal or Eland operations in the reporting period, leading to a Percentage Hearing Loss (PHL) shift of 5% or more from a baseline audiogram level.

Number of new compensable NIHL cases: The number of cases of NIHL identified at the Zondereinde, Booysendal or Eland operations and confirmed by an audiologist where the PHL shift is more than 10% and which has or will be referred to the insurance provider for compensation in the reporting period.

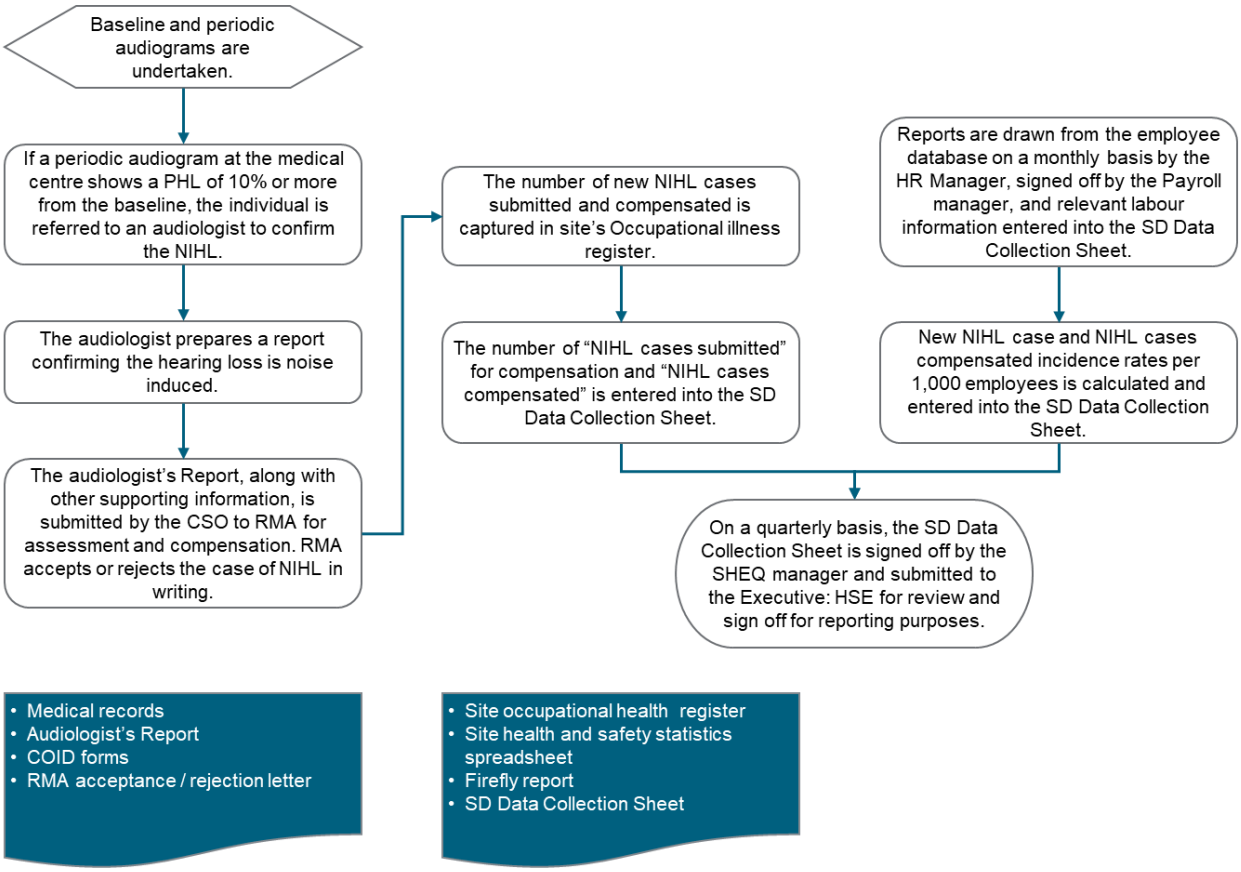
Number of new NIHL cases compensated: The number of cases of NIHL at the Zondereinde, Booysendal or Eland operations and confirmed by an audiologist, where the PHL shift is more than 10% referred to and accepted by the insurance provider and for which compensation has been paid in the reporting period.

Measurement Units:

- Number of new compensable NIHL cases.
- Number of NIHL compensated.

[15] *MHSA Regulations, Regulation 11.4(1)*

Data collection process overview:



4.2. Tuberculosis

Definition:

Number of new TB cases detected: The number of employees at the Zondereinde, Booysendal or Eland operations confirmed as having Pulmonary Tuberculosis (TB) by the occupational medical practitioner (OMP), during the reporting period.

Total number of TB cases: the total number of employees at the Zondereinde, Booysendal or Eland operations, including existing and new TB cases, confirmed as having Pulmonary TB by the OMP for the reporting period.

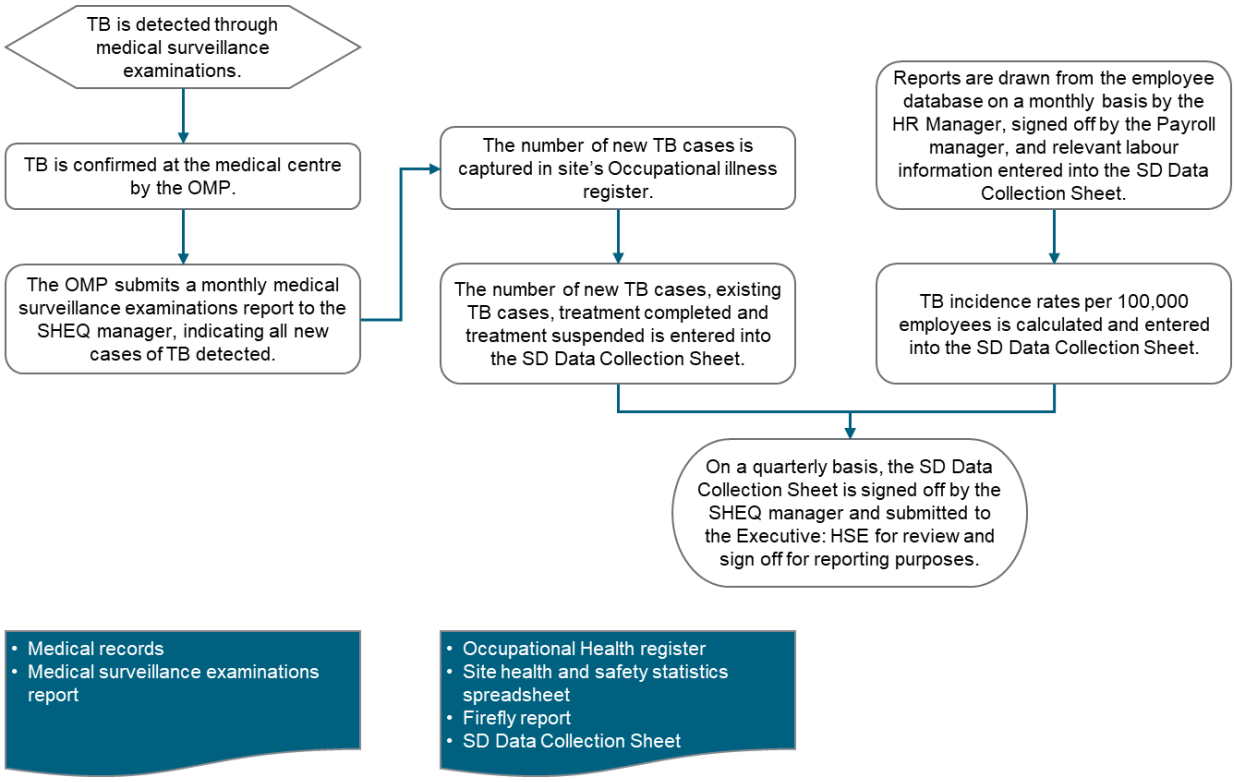
TB incidence rate per 100,000 employees: Total number of TB cases detected multiplied by 100,000 and divided by the number of employees at the Zondereinde, Booysendal or Eland operations at the end of the reporting period.

Number of employees receiving TB treatment: The number of employees at the Zondereinde, Booysendal and Eland operations receiving treatment for TB through the operation's wellness programme.

Measurement Units:

- Number of new TB cases.
- Total number of TB cases.
- TB incidence rate per 100,000 employees.
- Number of employees receiving TB treatment.

Data collection process overview:



4.3. Medical Surveillance

Definition:

Number of annual medical surveillance examinations performed: Total number of employees and contractors at the Booysendal, Zondereinde and Eland operations presenting themselves to the Medical Centre for Entry, Periodic, Transfer and Exit Medical Examinations for the reporting period.

Number of entry medical surveillance examinations performed: Number of employees and contractors at the Booysendal, Zondereinde and Eland operations presenting themselves to the Medical Centre for Entry Medical Examinations for the reporting period.

Number of exit medical surveillance examinations performed: Number of employees and contractors at the Booysendal, Zondereinde and Eland operations presenting themselves to the Medical Centre for Exit Medical Examinations for the reporting period.

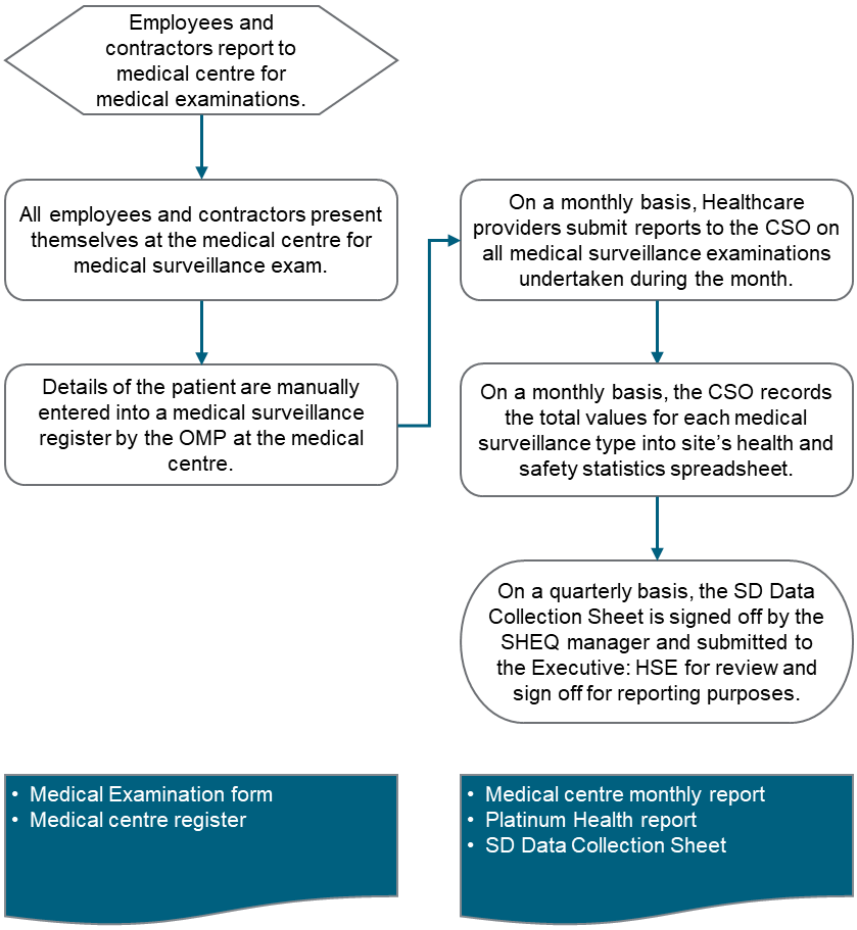
Number of transfer medical surveillance examinations performed: Number of employees and contractors at the Booysendal, Zondereinde and Eland operations presenting themselves to the Medical Centre for transfer Medical Examinations for the reporting period.

Number of people eligible for medical surveillance examinations: The total number of employees and contractors employed, excluding contractors or visitors who work less than five surface shifts or three underground shifts, who are required to undertake medical surveillance examinations.

Measurement Units:

- Number of people required to undergo medical surveillance examinations.
- Number of persons undergoing entry, periodic, transfer or exit medical surveillance examinations.

Data collection process overview:



4.4. Voluntary Counselling and Testing (VCT)

Definition:

Number of VCT encounters: Number of employees and contractors electing to participate in a VCT programmes at the Booysendal, Zondereinde and Eland operations in the reporting period.

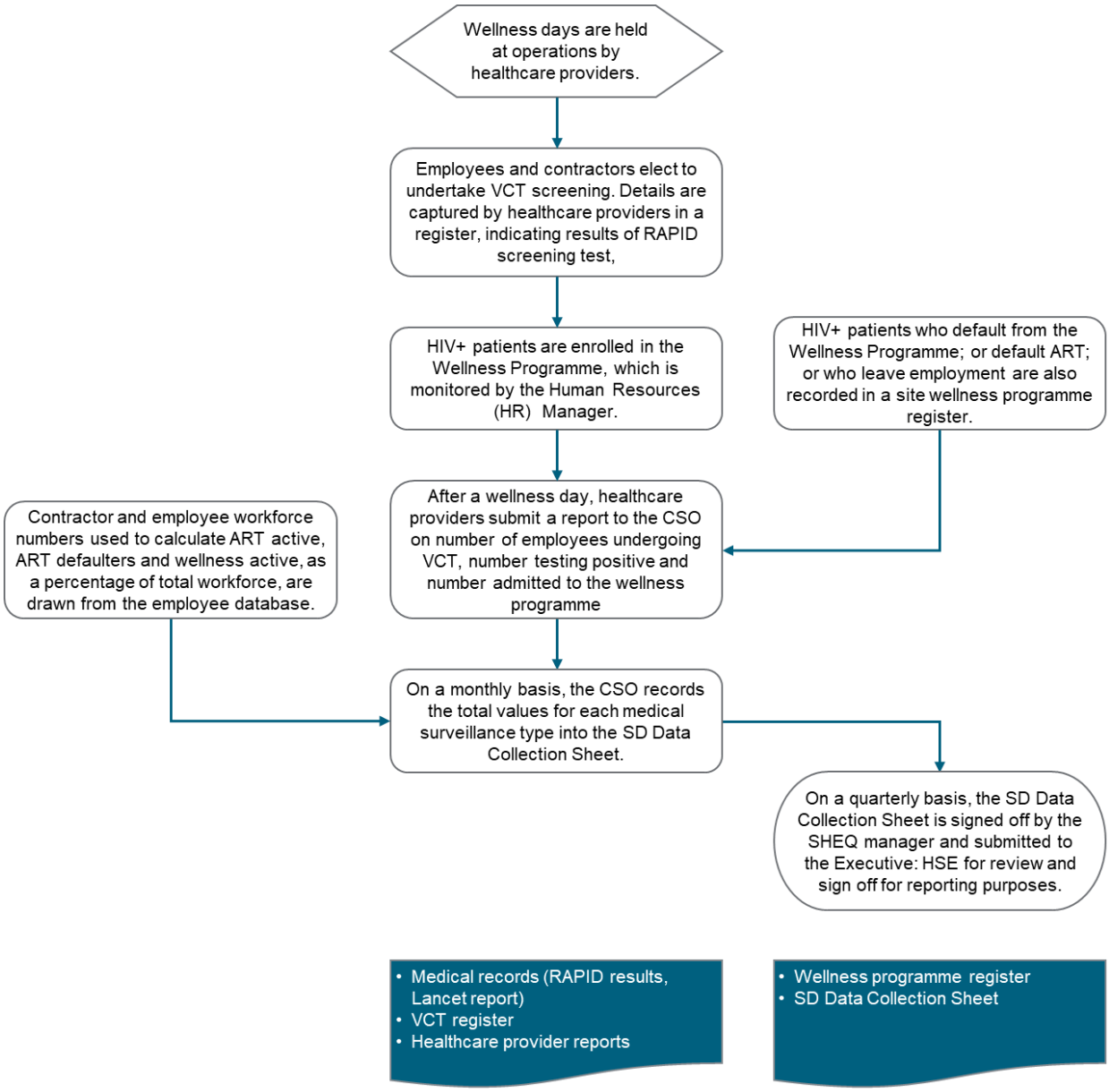
Number of persons testing positive: Number of employees and contractors confirmed as being HIV/AIDS positive by a RAPID screening test during a VCT programme.

HIV prevalence: Proportion of employees and contractors presenting as HIV positive at the Booysendal, Zondereinde and Eland operations during the reporting period, expressed as a percentage of the Total Workforce (employees and contractors).

Measurement Units:

- Number of VCT encounters.
- Number of persons testing positive.
- HIV prevalence (%).

Data collection process overview:



4.5. Anti-Retroviral Treatment

Definition:

Number of individuals receiving Anti-Retroviral Treatment (ART): The net number of employees and contractors at the Booysendal, Zondereinde and Eland operations who are HIV positive and are receiving treatment under the operation's Wellness programme at the end of the reporting period. This includes HIV employees and contractors who have entered the wellness programme during the reporting period and excludes those who have left the wellness programme or may be receiving ART from an independent medical care provider.

Number of people no longer receiving ART: The number of employees or contractors at the Booysendal, Zondereinde and Eland operations who are HIV positive and have withdrawn from receiving ART through the operation's Wellness programme during the reporting period.

Reason for people no longer receiving ART: Reasons for withdrawal from ART, including refusal of treatment, deceased, discharged, and exit (departure from employment at Northam).

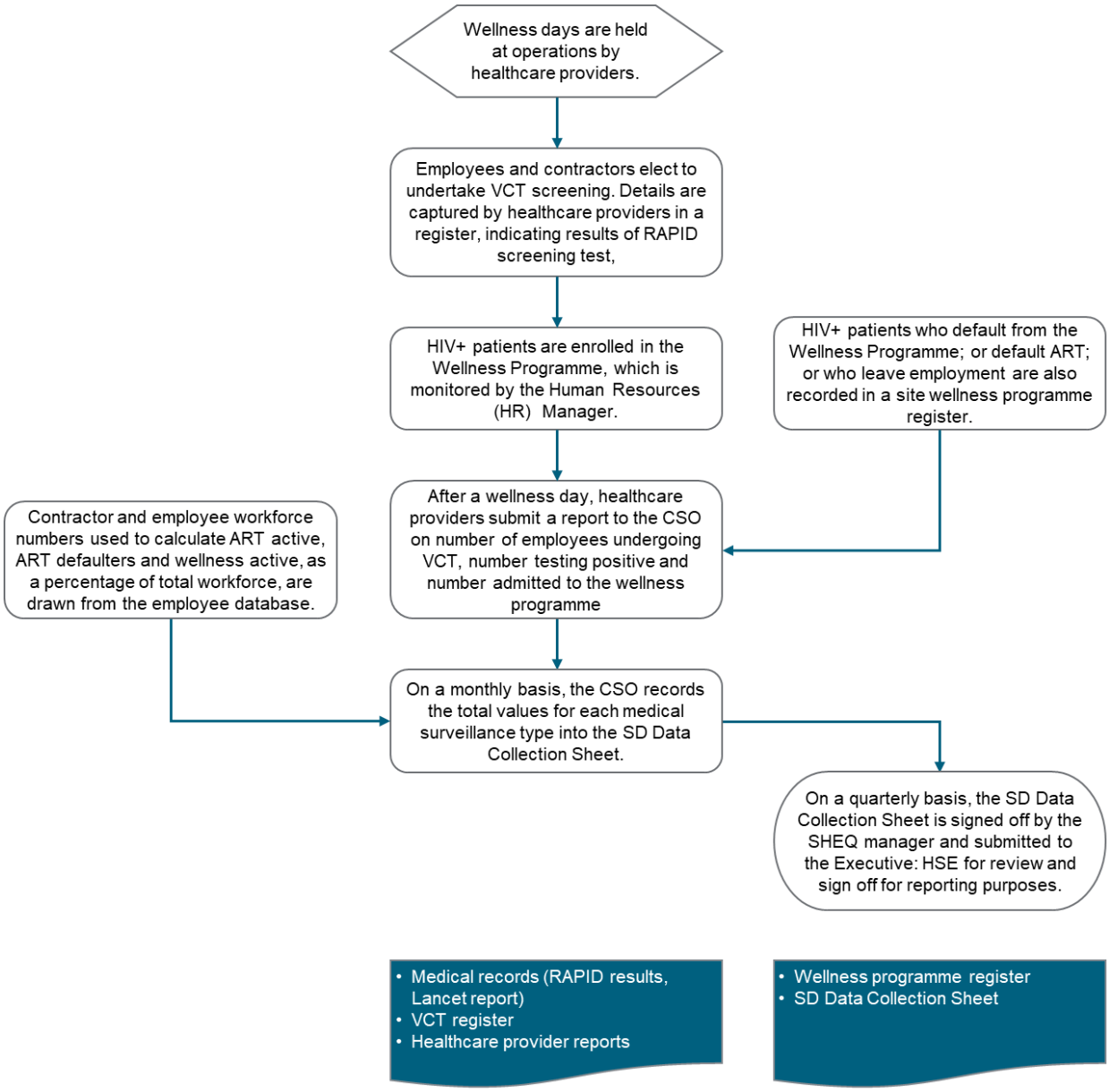
Number of individuals who are enrolled on the Wellness Programme: The number of employees and contractors at the Booysendal, Zondereinde and Eland operations who were receiving treatment under the operations' Wellness programme at the end of the reporting period.

Number of individuals who have left the Wellness Programme: The number of employees and contractors at the Booysendal, Zondereinde and Eland operations who withdrew from the Wellness programme during the reporting period.

Measurement Units:

- Number of people receiving ART.
- Number of people no longer receiving ART.
- Reason for people no longer receiving ART.
- Number of individuals who are receiving treatment under the Wellness programme.
- Number of individuals who have left the Wellness programme.

Data collection process overview:



5. Labour Practises

5.1. Total Workforce (including Contractors)

Definition:

Total workforce: Total numbers of employees and contractors working at the Zondereinde, Booysendal and Eland operations at the end of the reporting period.[16]

Employee workforce: Total number of individuals who are in an employment relationship with the organisation, according to national law. This includes permanent (full-time or part-time individuals, employed for an indeterminate period) as well as fixed-term or temporary contract (employment ends when a specific time period expires or task is completed) individual employed and paid directly by the Zondereinde, Booysendal and Eland operations, based on payroll[17] data at the end of the reporting period.[18]

Contractor workforce: Total number of workers at the Zondereinde, Booysendal and Eland operations at the end of the reporting period, who are in an employment relationship in accordance with national law with a supplier organisation that is characterised by a commercial relationship to provide services or products to Northam. Supplier organisations can include Brokers and Consultant's.[18]

Total employee workforce, by pay scale group: Total employee workforce at the Zondereinde, Booysendal and Eland operations, based on payroll data at the end of the reporting period, for each pay scale level (i.e. Patterson Modern Grades).

Total employee workforce by labour sending area: Total employee numbers working at the Zondereinde, Booysendal and Eland operations based on payroll data at the end of the reporting period from labour sending areas in South Africa (Eastern Cape, Free State, Gauteng, KwaZulu Natal, Limpopo, Mpumalanga, North West, Northern Cape or Western Cape) or countries other than South Africa (Angola, Botswana, Lesotho, Malawi, Mozambique, Namibia, Swaziland or Zimbabwe).[19]

Measurement Units:

- Total workforce number.
- Number of employees.
- Number of contractors.
- Employee workforce by pay-scale grade.

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[16] GRI Standards: reporting requirements for Disclosure 102-8 (information on employees and other workers)

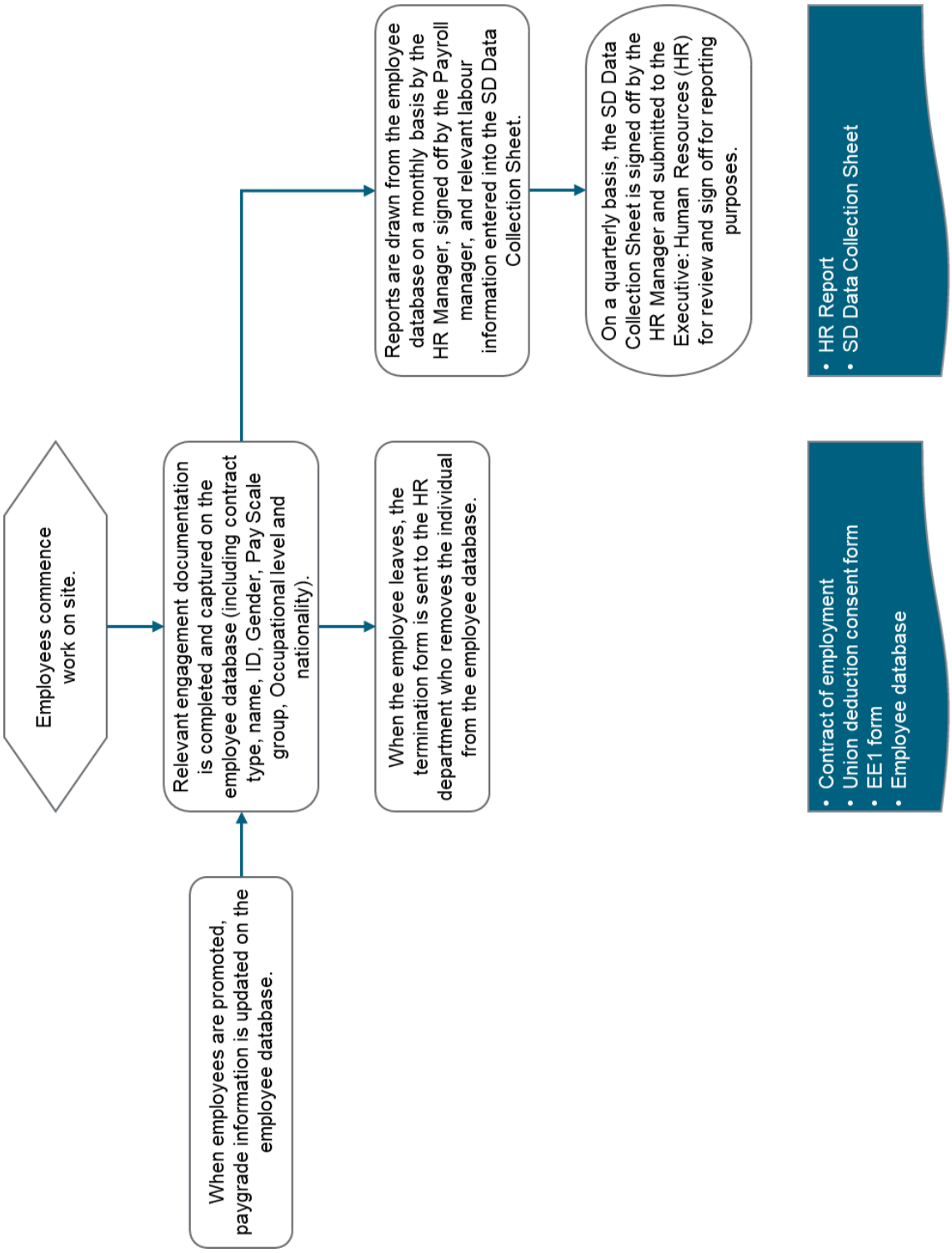
[17] Amended Code Series 200: Measurement of the management control element of broad-based black economic empowerment, issued under Section 9 of the Broad-Based Black Economic Empowerment Act 53 of 2003.

[18] GRI Standards Glossary, 2018

[19] GN 1002 of 27 September 2018 (Mining Charter, 2018: Publication of the Mining Charter, 2018 for Implementation)

- Employee workforce by labour sending area.

Data collection process overview:



5.2. Employee Turnover

Definition:

Total number of employee turnover: Total number of employees, as defined under **Section 5.1** above, at the Zondereinde, Booysendal or Eland operations who leave the organisation during the reporting period due to dismissal, retrenchment, retirement, death in service or voluntarily through resignation or early retirement (including medical boarding).[20] Where learnerships and internship fixed term contracts expire, these are captured separately and are reported separately from employee turnover. Employees transferring between operations are not included as employee turnover.

Total employee turnover rate: Number of employees, as defined under **Section 5.1** above, at the Zondereinde, Booysendal or Eland operations who leave the organisation during the reporting period due to dismissal, retrenchment, death in service or voluntarily through resignation or early retirement, expressed as a percentage of the total employee workforce working at the operation, based on payroll data at the end of the reporting period.

Female employee turnover rate: Number of female employees at the Zondereinde, Booysendal or Eland operations who leave the organisation during the reporting period due to dismissal, retrenchment, death in service or voluntarily through resignation or early retirement, expressed as a percentage of the total employee workforce working at the operation, based on payroll data at the end of the reporting period.

Male employee turnover rate: Number of male employees at the Zondereinde, Booysendal or Eland operations who leave the organisation during the reporting period due to dismissal, retrenchment, death in service or voluntarily through resignation or early retirement, expressed as a percentage of the total employee workforce working at the operation, based on payroll data at the end of the reporting period.

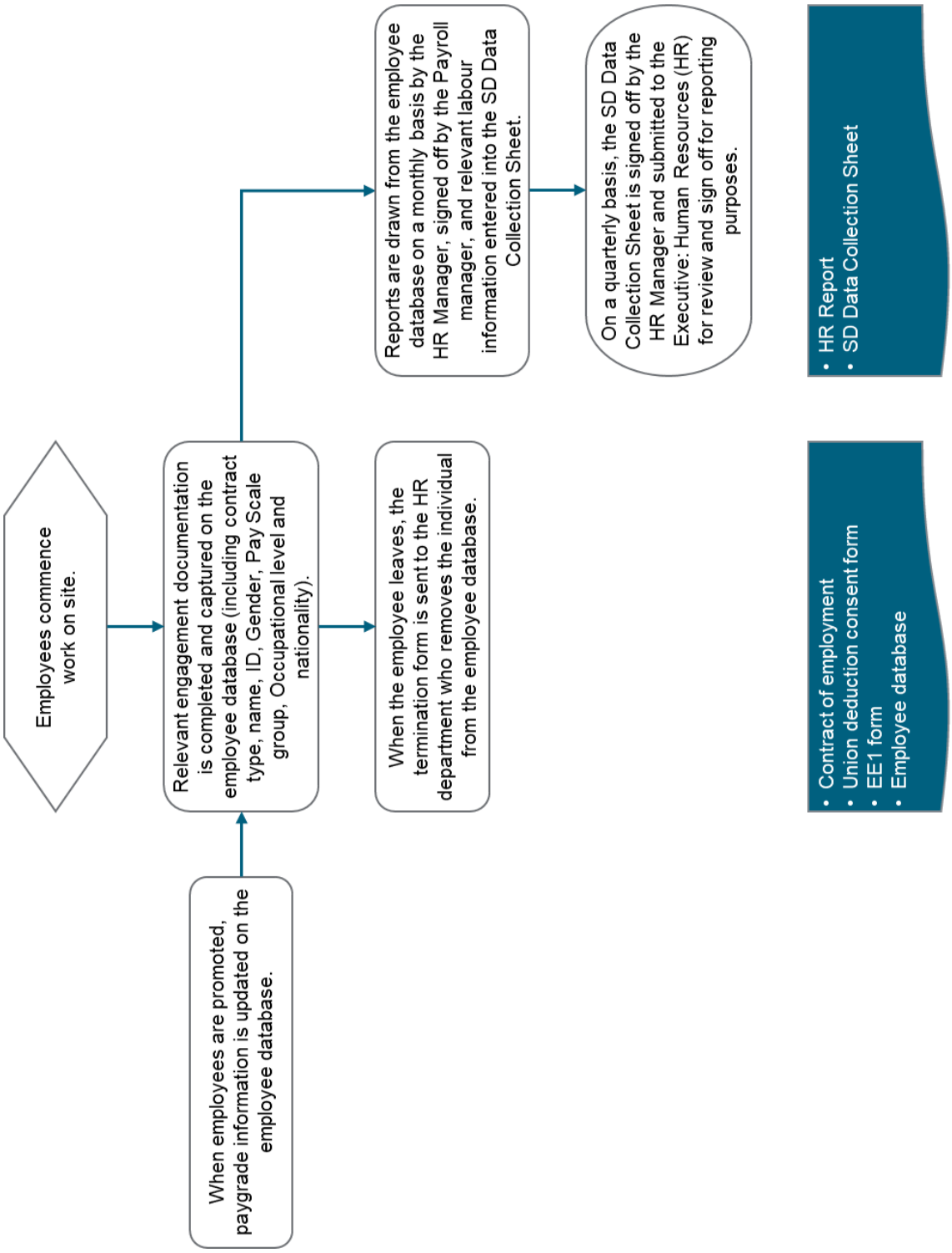
Turnover rate by age group: Number of employees at the Zondereinde, Booysendal or Eland operations, broken down by age group (under 35 years old; 36 to 54 years old; or older than 55 years), who leave the organisation during the reporting period due to dismissal, retrenchment, death in service or voluntarily through resignation or retirement, expressed as a percentage of the total employee workforce working at the operation based on payroll data at the end of the reporting period.

Measurement Units:

- Total employee turnover rate (%).
- Female employee turnover rate (%).
- Male employee turnover rate (%).
- Employee Turnover rate by age group (%).

[20] *GRI Standards Glossary, 2018*

Data collection process overview:



5.3. Historically Disadvantaged Persons in Management

Definition:

Historically Disadvantaged Persons (HDP): Any person, category of persons or community, disadvantaged by unfair discrimination before 1993 when the Constitution of the Republic of South Africa (Act 200 0f 1993) took effect.[21] White women are included in this definition under the current mining charter.

Total employee workforce: As per **Section 5.1** of the SD guidelines and definitions handbook.

HDPs in management: The total number of HDP employees in Top, Senior, Middle and Junior management, including women and employees with disabilities, expressed as a percentage of total number of employees by management level[14], where:

- Top management comprises Executive Directors who are members of the Board;
- Senior management comprises members of the Executive Committee (E Patterson Modern pay grades)22;
- Middle Management, including professional qualified and experienced specialists23 (D Patterson Modern pay grades);
- Junior Management, including skilled technical and academically qualified workers in a supervisory role including supervisors, foremen or Superintendents15 (C4 and C5 levels Patterson Modern pay grades).

Core and critically skilled, non-managerial HDP employees: Professionally qualified and experienced science, technology, engineering and mathematical specialist HDP employees who do not fulfil a managerial or supervisory role but rather focus on providing technical expertise (C1 to C3 Patterson Modern pay grades).

Measurement units:

- Number of HDP employees by management level, including women and people with disabilities.
- Percentage of HDP employees by management level, including women and people with disabilities.
- Number of core and critically skilled, non-managerial HDP employees, including women and people with disabilities.

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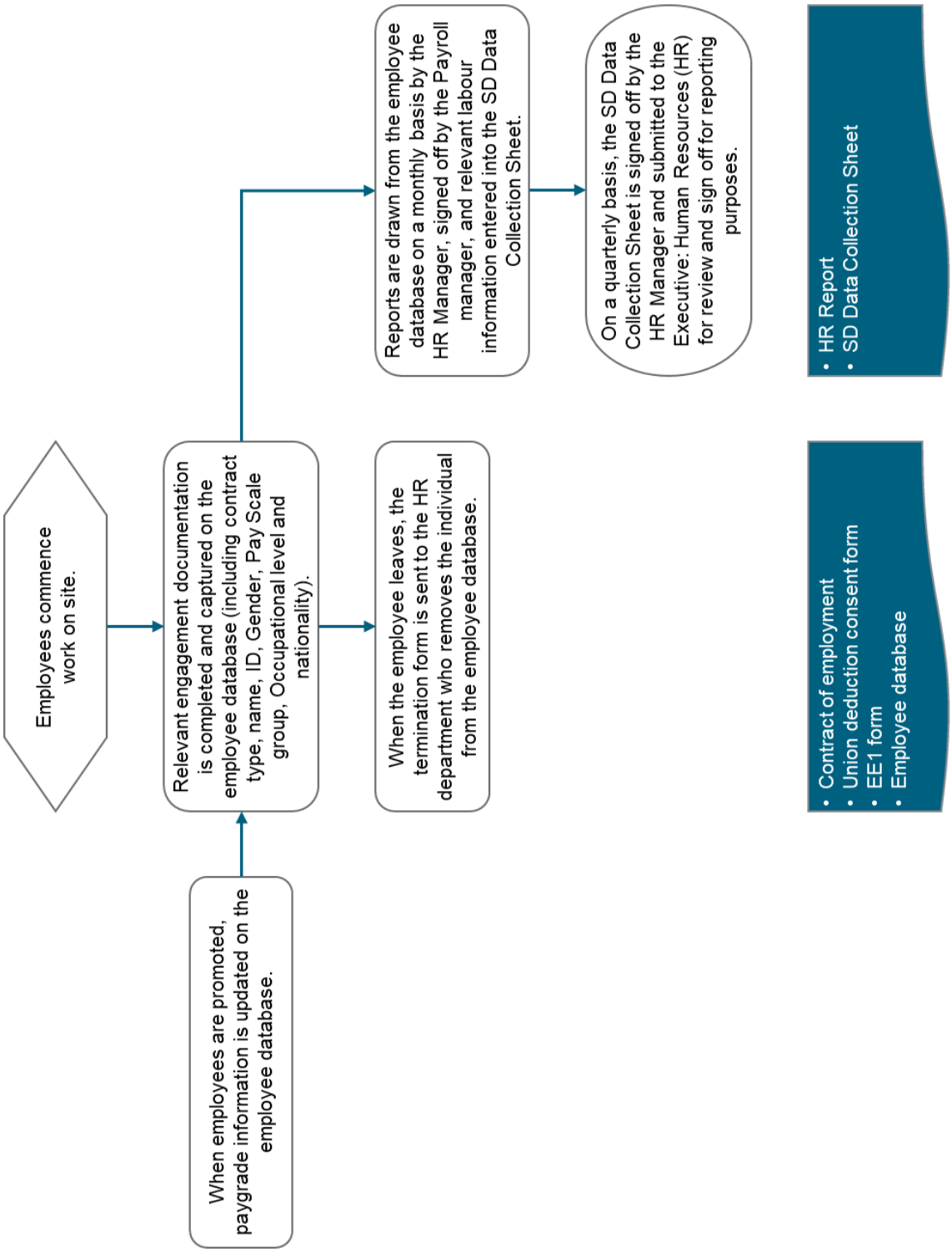
[21] *Section 1, Mineral and Petroleum Resources Development Act 28 of 2002*

[22] *Occupation levels as per form EEA9 (Employment Equity Act 55 of 1998)*

[23] *GNR 527 of 23 April 2004 (MPRDA: Mineral and Petroleum Resources Development Regulations)*

Data collection process overview:



5.4. Women at Mining

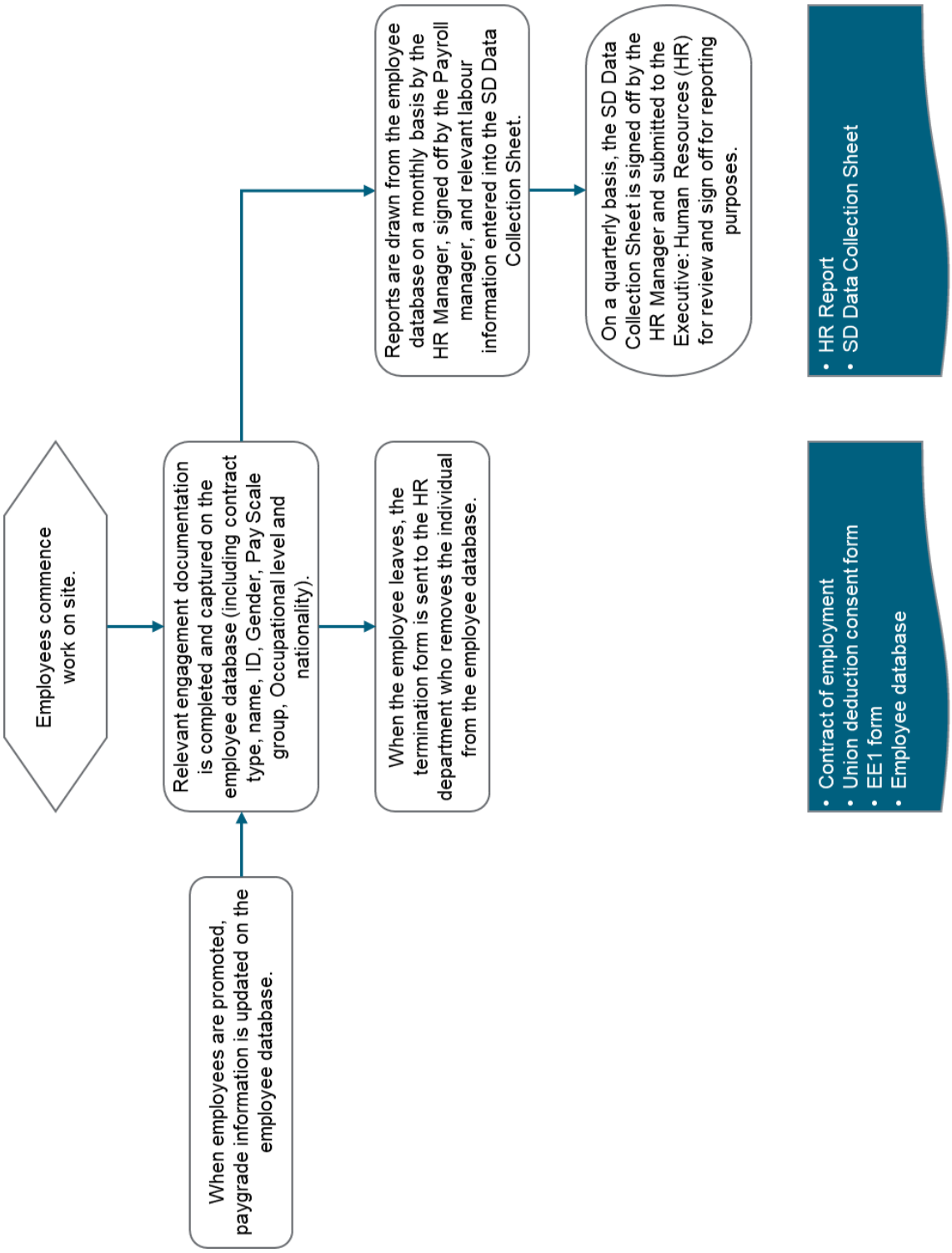
Definition:

Total women at mining: the total number of female employees working at the Zondereinde, Booysendal and Eland operations, based on payroll data at the end of the reporting period, as a percentage relative to the total employee workforce as defined above in **Section 5.1**.

Measurement units:

- Total workforce: As per definition 5.1 of the SD guidelines and definitions handbook.
- Total number of women at mining (WAM).
- Percentage (%) WAM.

Data collection process overview:



5.5. Collective Bargaining

Definition:

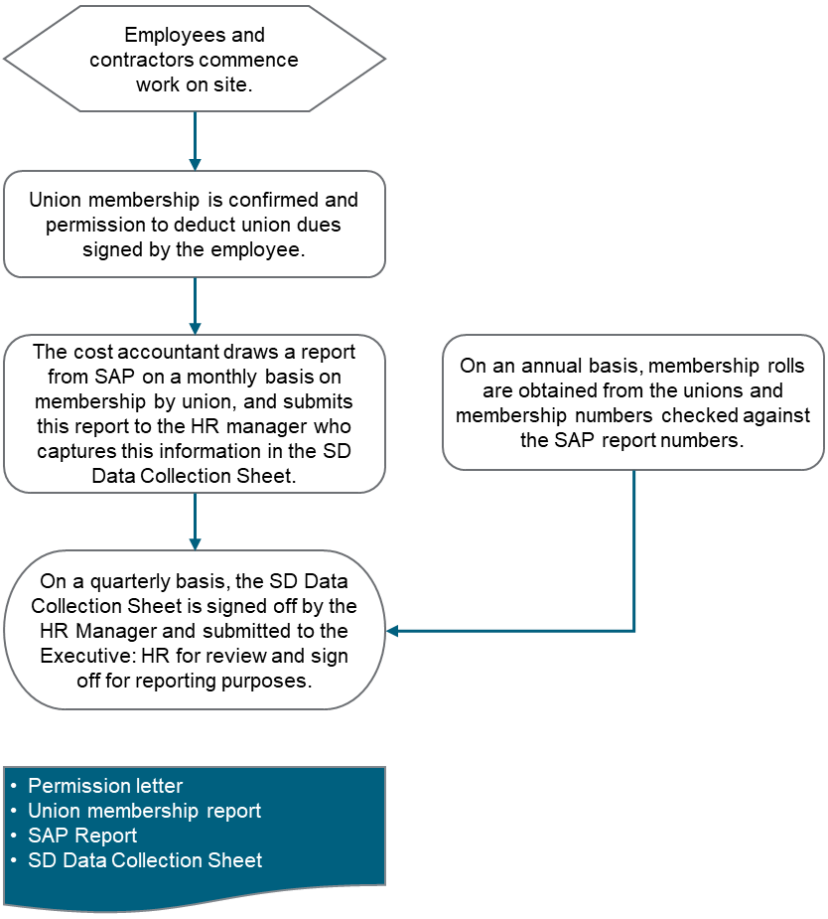
Percentage of employees covered by collective bargaining agreements: Proportion of employees working at the Zondereinde, Booysendal and Eland operations at the end of the reporting period covered by collective bargaining agreements (CBA), expressed as a percentage of the entire workforce. All permanent employees within the A, B and C pay scale grades (Patterson Modern Grades) at the end of the reporting period, irrespective of whether they are paid up members of a recognised union, are covered by a CBA.

Union representation: Proportion of employees at the Zondereinde, Booysendal and Eland operations who are members of officially recognised unions at the operation, expressed as a percentage of total employee workforce.

Measurement Units:

- % employees covered by CBA.
- % employees, by Union.
- Total number of employees.

Data collection process overview:



5.6. Skills Development

Definition:

Skills development: learning programmes which promote the development of core mining, metallurgical and engineering skills, which is supported by professional, vocational, technical, and academic learning programmes. Skills development categories are as follows:

1) Adult Education and Training (AET).
2) Scholarships and Bursaries.
3) Internships, Post-trade test Completion Exposure Work Integrated Learning, Vacation Work and Learnerships / Apprenticeships and Cadetships.
4) Work orientated learning programmes (external training).
5) Occupationally directed learning programmes (internal training).
6) Portable Skills, which are aimed at reskilling employees in areas not linked to the mining environment.

Number of community members attending learning programmes: the total number people from communities surrounding the Zondereinde, Booysendal and Eland operations, who are not employees at the operation, participating in skills development programmes offered by the operation at an onsite of offsite training centre.

Number of employees attending learning programmes: The total number of persons from the Zondereinde, Booysendal and Eland operations participating in internal or external learning programmes, by skills development category, during the reporting period.

Percentage of HDPs attending learning programmes: The proportion of HDPs (as defined in **Section 5.3** above) attending learning programmes at the Zondereinde, Booysendal and Eland operations during the reporting period, expressed as a percentage of the total number of persons attending learning programmes per skills development category.

Percentage of black women attending learning programmes: The proportion of black women attending learning programmes at the Zondereinde, Booysendal and Eland operations during the reporting period, expressed as a percentage of the total number of persons attending learning programmes per skills development category.

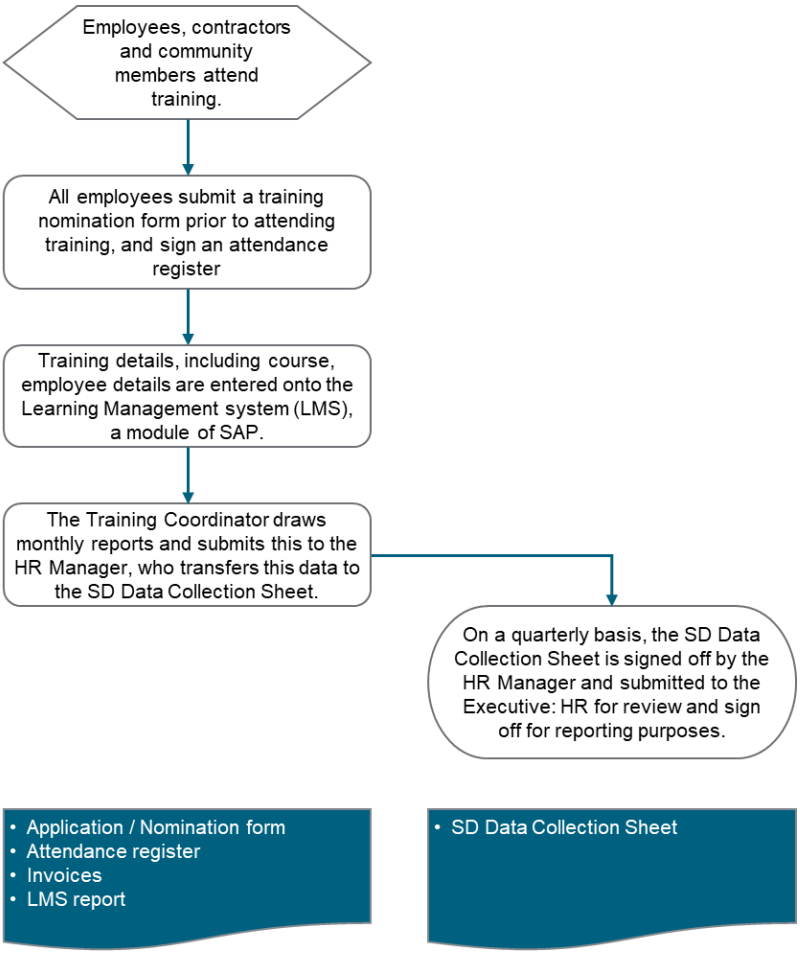
Average hours spent per employee attending learning programmes: The total number of hours spent by employees from the Zondereinde, Booysendal and Eland operations attended internal or external learning programmes, divided by the number of employees working at the site at the end of the reporting period.

Measurement Units:

- Number of community members attending learning programmes.
- Number of employees attending learning programmes, by skills development category.

- Number and percentage of HDPs attending learning programmes, by skills development category.
- Number and percentage of black women attending learning programmes, by skills development category.
- Average time, in hours, spent in learning programmes per employee.
- Average time, in hours, spent in learning programmes per employee by skills development category.

Data collection process overview:



5.7. Adult Education and Training (AET)

AET refers to Adult Education and Training aimed at improving basic literacy and numeracy skills for employees or community members (non-employees). AET training has five levels, namely pre-AET, and AET Levels 1 to 4. A learner who completes all AET levels can then proceed to take a further six relevant subjects, and after successful completion the learner will be issued with a General Education and Training Certificate (GETC). This certificate is an equivalent qualification to schooling grade 9 and sits at level 1 in terms of the National Qualification Framework (NQF). AET is available to all employees on a part-time, voluntary basis.

Definition:

Number of employees per AET Level: The number of employees at the Zondereinde, Booysendal and Eland operations registered for AET learning programmes for each AET level (i.e. Pre-ABET and Levels 1 to 4) for the reporting period.

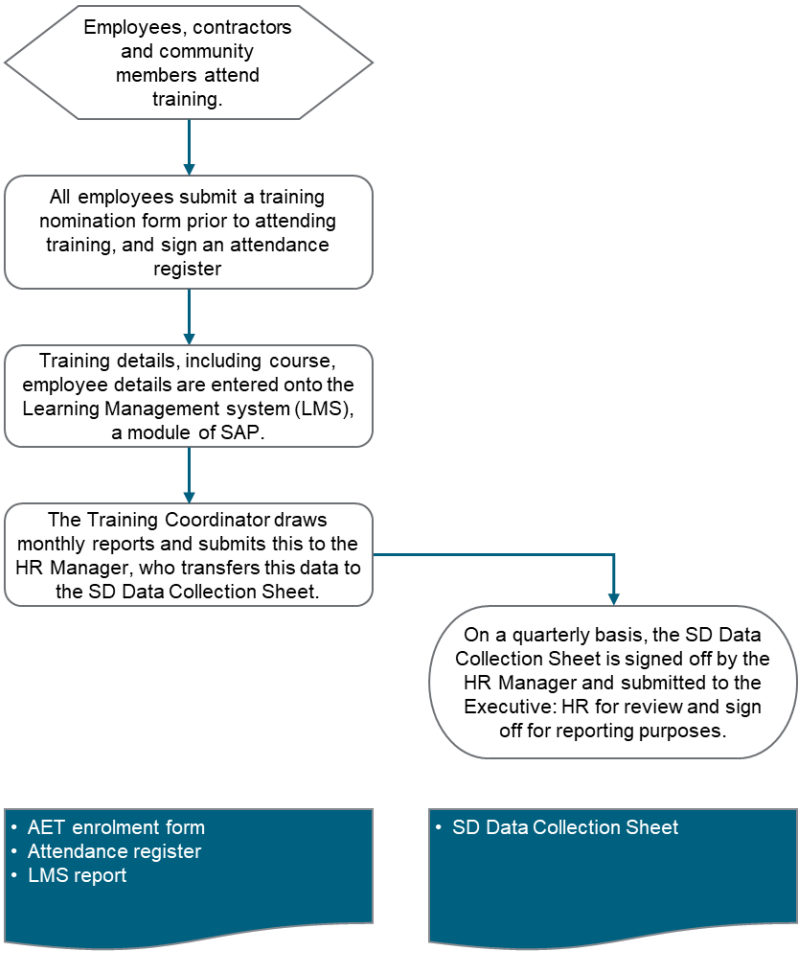
Number of community members (non-employees) per AET level: The number of community members at the Zondereinde, Booysendal and Eland operations registered for AET learning programmes for each AET level (i.e. Pre-ABET and Levels 1 to 4) for the reporting period.

Pass rate: The number of employees or community members at the Zondereinde, Booysendal and Eland operations by AET level at the end of the reporting period that completed training, expressed as a percentage of the number of employees or community members respectively that were registered for the respective AET level, in the reporting period.

Measurement units:

- Number of employees per AET Level.
- Number of community members per AET level.
- Employee pass rate (%) per AET level.
- Community pass rate (%) per AET level)

Data collection process overview:



6. Social and Labour Plan expenditure

6.1. Human Resources Development expenditure

Definition:

HRD expenditure by skills development category: Legitimate HRD expenditure at the Zondereinde, Booysendal and Eland operations for the reporting period by skills development category:

1) Adult Education and Training (AET).
2) Scholarships and Bursaries.
3) Internships, Post-trade test Completion Exposure Work Integrated Learning, Vacation Work and Learnerships / Apprenticeships and Cadetships.
4) Work orientated learning programmes (external training).
5) Occupationally directed learning programmes (internal training).
6) Portable Skills, which are aimed at reskilling employees in areas not linked to the mining environment.

Human Resources Development (HRD) expenditure: includes all legitimate expenses incurred for all internal and external learning programmes at the Zondereinde, Booysendal and Eland operations for the reporting period, as evidenced by invoices or appropriate internal accounting records, which may include: [24]

- Scholarships and bursaries;
- Salaries or wages for employees in Internships, Learnerships and Apprenticeships;
- Work Integrated Learning programmes;
- Occupationally directed training which contributes to continuing professional development, or work-based information programmes which contribute to increased understanding of job, work context or improved performance or skills (limited to a maximum of 15% of Total skills development expenditure);
- External training expenditure provided for unemployed black people & employees;

Mandatory sectoral training (training which is mandated by other pieces of legislation, such as health and safety training required in terms of the MHSA) expenditure does not qualify as skills development expenditure. Similarly, as required in terms of the Mining Charter, 2018, director and executive training is excluded. [25]

Cost of HRD learning programmes: legitimate expenses incurred in relation to HRD expenditure, incorporating:

1) Administrative costs (cost of training staff associated with the training facility).
2) Cost of trainers, training facilities, training materials and catering for internal training events.

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[24] *Amended Code Series 300: Measurement of the skills development element of broad-based black economic empowerment, issued under Section 9 of the Broad-Based Black Economic Empowerment Act 53 of 2003.*

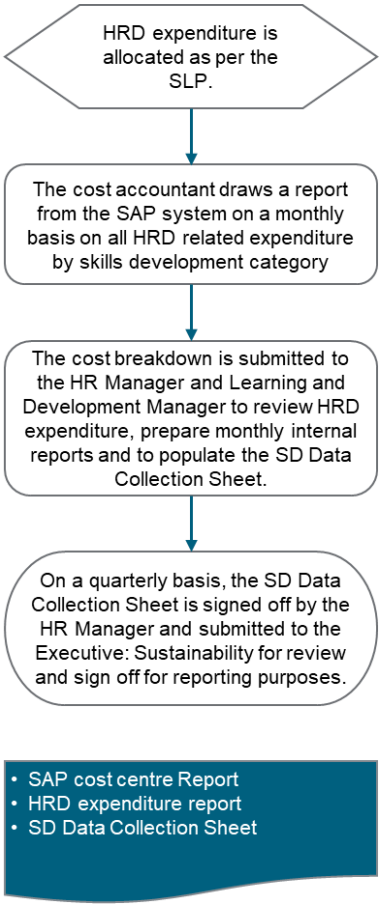
[25] *GN 1002 of 27 September 2018 (Mining Charter, 2018: Publication of the Mining Charter, 2018 for Implementation).*

3) Catering, accommodation and travelling costs (including subsistence, fuel, and accommodation) associated with external training events), (limited to a maximum of 15% of the total skills development expenditure).

Measurement Units:

- Monetary value of HRD expenditure by skills development category, in Rands.
- Monetary value of cost of HRD expenditure, in Rands.

Data collection process overview:



6.2. Mine Community Development

Definition:

Local Economic Development (LED): Contributions initiated and implemented at the Zondereinde, Booysendal and Eland operations for targeted beneficiaries outside of the organisation, which are aligned to the requirements of municipal Integrated Development Plans (IDPs) in which the operations occur, [26] focusing on the following key elements:

- Safety and Security;
- Health;
- Environmental management programmes;
- Income generating projects;
- Education and
- Basic Infrastructure.

Corporate Social Investment (CSI): Discretionary contributions initiated and implemented at the Zondereinde, Booysendal and Eland operations for targeted beneficiaries who are outside of the organisation includes, but is not limited to:

- Contributions to charities, NGOs and research institutions; or
- Direct costs associated with social programmes, including arts, education etc.[27]

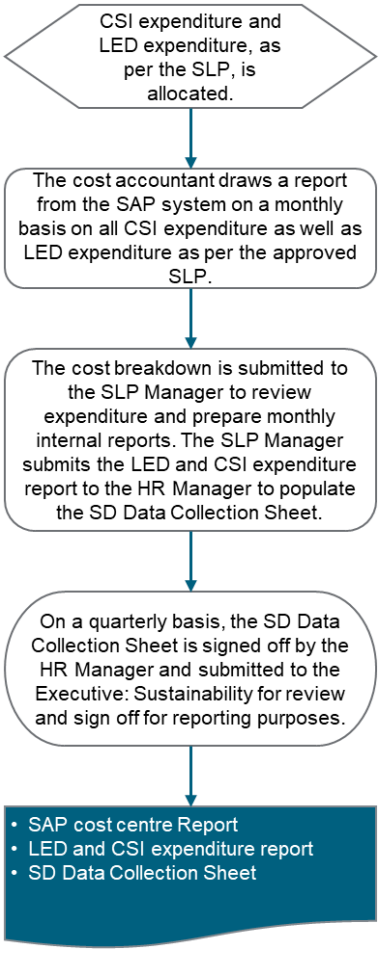
Measurement Units:

- LED expenditure by focus area, in Rands.
- Total CSI expenditure, in Rands.

[26] *Section 46(c) in GNR 527 of 23 April 2004 (MPRDA: Mineral and Petroleum Resources Development Regulations)*

[27] *GRI Standards: reporting requirements for Disclosure 201-1 (Direct economic value generated and distributed)*

Data collection process overview:



6.3. Accommodation and Living Conditions

Definition:

Home ownership units: Housing units made available for purchase by employees at the Zondereinde, Booysendal or Eland operations.

Rental units: Housing units owned by the at the Zondereinde, Booysendal or Eland operation, which are available to employees to rent or lease.

Single quarter and family hostel units: Number of hostel units converted to single quarter or family units provided to employees.

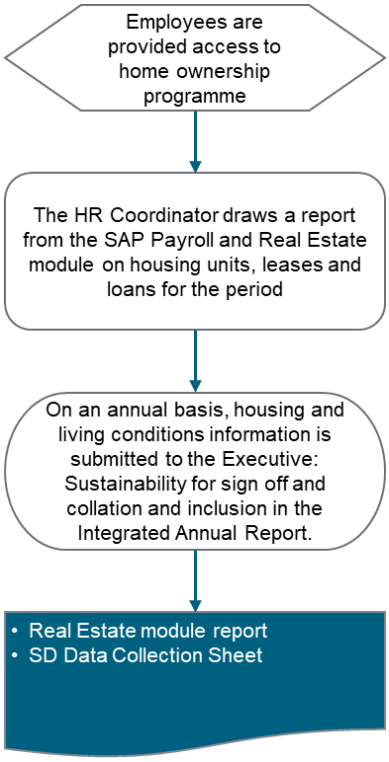
Number of interest free loans: Interest free loans provided to employees by the Zondereinde, Booysendal or Eland operation to facilitate home ownership.

Accommodation and living arrangement expenditure: capital and operational expenditure on housing, rental, single quarter and family units, including all maintenance and upgrading costs but excluding Living Out Allowances (LOA).

Measurement units:

- Number of home ownership units available.
- Number of loans provided to facilitate home ownership.
- Number of units available for rental.
- Number of single and family units made available to employees.
- Accommodation and living arrangement expenditure

Data collection process overview:



6.4. Enterprise and Supplier Development

Definitions:

Preferential Procurement: Expenditure (excluding non-discretionary procurement expenditure) on Capital goods, Consumables and Services provided by BEE entities.[28]

Non-discretionary procurement expenditure: Expenditure that cannot be influenced by a mining company, such as procurement from the public sector and public enterprises [29] as well as pass through expenditure deducted from employee salaries including, but not limited to, payments to:

- Insurance providers;
- Medical aids;
- Employee Associations;
- Academic institutions; or
- Payments to 3rd parties, which appears on 3rd parties' income statements as costs of sales.

BEE Entity: means an entity of which a minimum of 25% plus 1 vote of share capital is directly owned by HDSAs, as measured in accordance with flow through principle.

Supplier Development (SD) expenditure: Expenditure on development of Black Owned Exempted Micro-Enterprise (EME), Qualifying Small Enterprises (QSE) or Generic Enterprise (GE, provided that the expenditure occurs within 5 years of the GE having initially been included in the SD programme as an EME or QSE) suppliers of goods or services to Northam to improve:

- The goods or services offered by the suppliers;
- Service deliver and lead-times of the supplier;
- Business processes and performance; and
- The suppliers' BBBEE compliance rating.[29]

Enterprise Development (ED) expenditure: Expenditure on development of Black Owned EME, QME or Generic Enterprise (GE, provided that the expenditure occurs within 5 years of the GE having initially been included in the SD programme as an EME or QSE) suppliers of goods or services who do not form part of Northam's current supply chain, with the specific objective of accelerating the development, sustainability and ultimate financial independence of the supplier.

Types of SD and ED expenditure include, but may not be limited to:

- Investments;
- Loans;
- Providing security or guarantees on behalf of suppliers;

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[28] *GN 838 of 20 September 2010 (MPRDA: publication of the amendment of the Broad-Based Socio-Economic Empowerment Charter for the South African Mining and Minerals Industry, or the 2010 Mining Charter)*

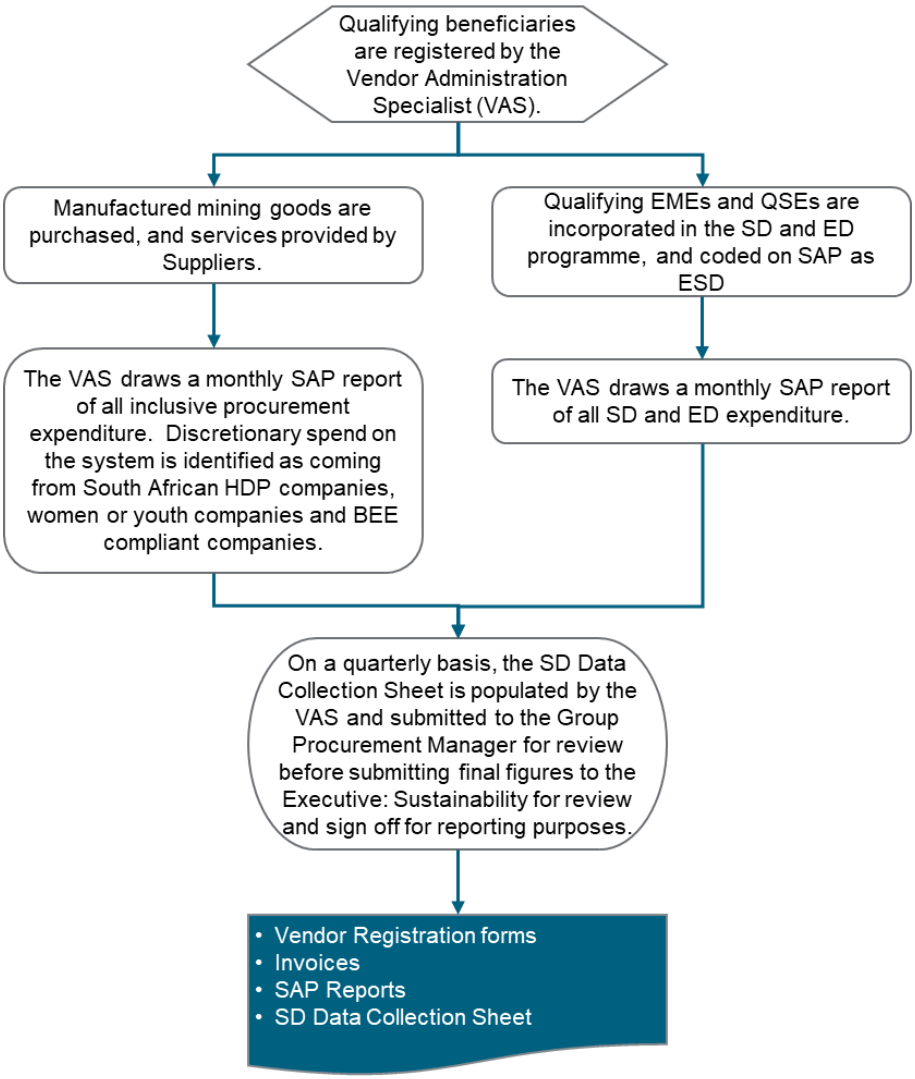
[29] *GN 304 of 31 May 2019 (Code Series 400, Statement 400 Codes of Good Practise on Broad-Based Black Economic Empowerment, as Amended)*

- Providing credit facilities or access to credit facilities;
- Providing grants;
- Direct costs incurred by Northam to develop or assist suppliers, including maintaining an SD and ED unit;
- Overhead costs directly attributable to SD and ED expenditure;
- Preferential terms, contributions, or discounts in respect of supply of goods or services;
- Capacity and expertise creation and development of goods or services previously not manufactured, produced, or provided in South Africa;
- Providing training or mentoring to beneficiary communities, including payments made to 3rd parties to perform SD and ED on behalf of Northam.

Measurement units:

- Total expenditure in Rands on Capital goods, Consumables and Services from BEE entities.
- Percentage (%) of expenditure on Capital goods, Consumables and Services from BEE entities.
- Value of SD expenditure as a percentage (%) of development targets (2% of Net Profit before Tax).
- Value of ED expenditure as a percentage (%) of development targets (1% of Net Profit before Tax).
- Number of ED beneficiaries graduating to SD level.
- Number of Jobs created through ED and SD programmes.

Data collection process overview:



7. Direct Economic Value Generated and Distributed

7.1. Payments to Government

Definition:

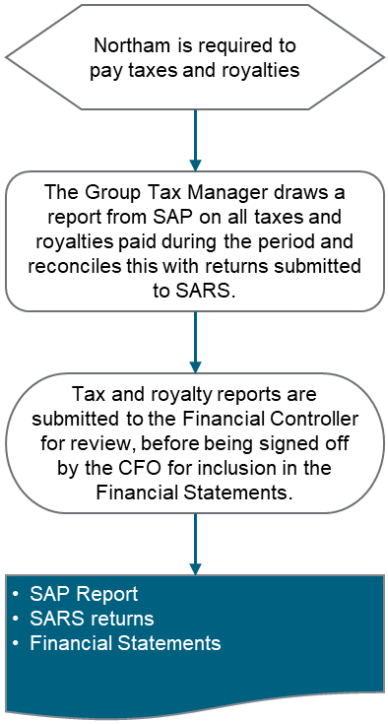
Taxes and Royalties: Taxes, including corporate, income and property taxes, as well as any royalties paid by Northam Platinum to Government, including any related penalties paid but excluding deferred taxes. This includes:

- Output VAT on local sales;
- Income tax on taxable mining profits and investment income;
- Securities transfer tax on share transactions;
- Transfer duties on properties;
- Carbon tax, calculated on emissions per tonne, which is more a levy as we get a tax deduction for the payment; and
- Royalties imposed and calculated in terms of the Mineral and Petroleum Resources Royalty Act 28 of 2008 (Royalty Act).

Measurement unit:

- Million Rands (R).

Data collection process overview:



8. Environment

8.1. Total Energy Consumption

Definition:

Total energy consumption: The sum of all energy inputs (e.g. self-generated and purchased) from renewable and non-renewable sources[30] at the Zondereinde, Booysendal and Eland operations in the reporting period. Energy inputs at operations comprise the following sources:

- Electricity;
- Coal;
- Petrol;
- Diesel;
- Paraffin; and
- Aviation fuel.

Electricity purchased: electricity purchased from third parties during the reporting period which is used in the production of the primary products on site, and which excludes electricity generated by the operation itself.

Petrol consumption: petrol consumed at the operation to produce its primary products[31], including electric power generated by the operation, on-site transportation and fuel issued to a contractor from the operation's storage facility. Fuel managed (issued and used) by a contractor is not included in the calculation of energy consumption but is used to calculate Scope 3 CO_2 emissions, described in **Section 8.11**.

Diesel consumption: diesel consumed at the operations to produce its primary products[31], including electric power generated by the operation, on-site transportation and fuel issued to a contractor from the operation's storage facility. Fuel managed (issued and used) by a contractor on site is not included in the calculation of energy consumption but is used to calculate Scope 3 CO_2 emissions, described in **Section 8.11**.

Paraffin consumption: paraffin consumed at Northam's operations to produce its primary products.[31]

Aviation Jet A1 fuel consumption: Jet A-1 fuel consumed by the Northam helicopter when transporting product or personnel to, from or between the Zondereinde, Booysendal and Eland operations.

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[30] *GRI Standards: reporting requirements for Disclosure 302-1 (Energy consumption within the organisation), 2016*

[31] *GRI Standards: reporting requirements for Disclosure 301-1 (Materials used by weight or volume), 2016*

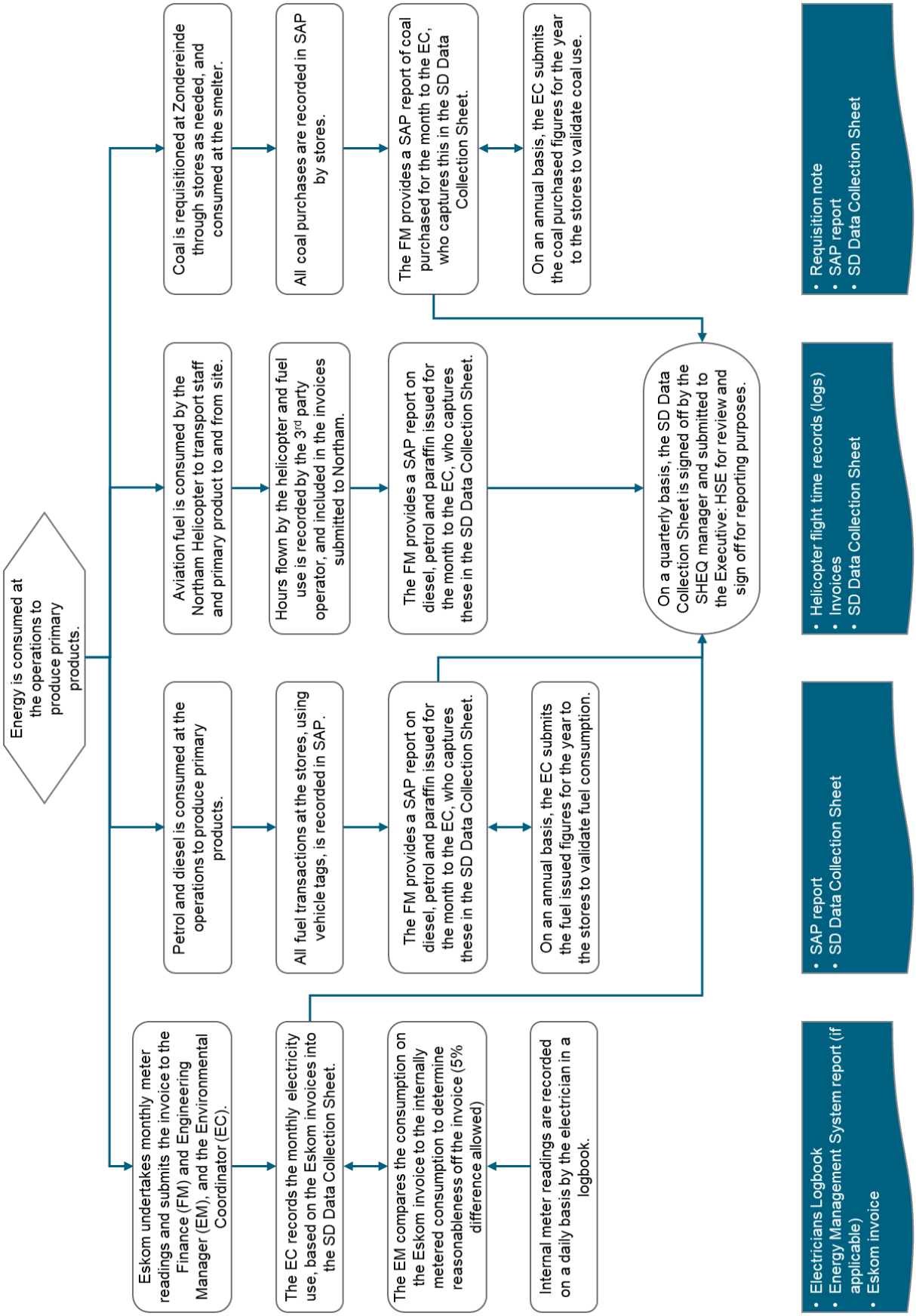
Coal used: the quantity of coal used at the Zondereinde Smelter operations operation to produce its primary products.[31]

Measurement unit:

- Gigajoules (GJ), converted from Megawatt hours (MWh, Litres or tonnes depending on the fuel source using appropriate conversion factors).[32]

[32] *Energy input values for each energy source are converted into Gigajoules (GJ) from the energy source measurement units using International System of Units (SI) conversion units. The conversion factors and calculations are incorporated into the SD Data Collection Sheet.*

Data collection process overview:



8.2. Energy Intensity

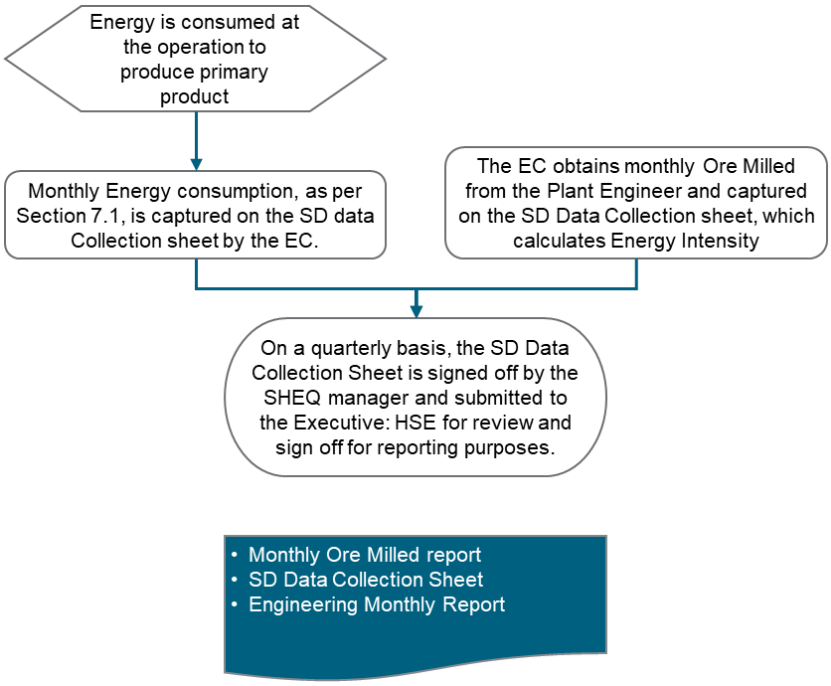
Definition:

Energy efficiency: a measure of the efficiency of total energy use, in relation to the run of mine (ROM) material milled at the Booysendal, Zondereinde or Eland operations during the reporting period.[33]

Measurement unit:

- Energy efficiency in GJ per tonne material milled.
- Energy used.
- Ore / material milled.

Data collection process overview:



[33] *GRI Standards: reporting requirements for Disclosure 302-3 (Energy intensity), 2016*

8.3. Water use

Definition:

Water use: all water withdrawn and used at Northam's operations to produce its primary products, which includes *water withdrawn by source* as well as *water recycled* as defined below, less water discharged back to surface water, groundwater, seawater or a third-party.[34]

Water withdrawal by source: Total volume of water withdrawn by source at the Zondereinde, Booysendal and Eland operations, which contributes to an understanding of the overall scale of potential impacts and risks associated with Northam's water use.[35] It is not the water use, which can be defined as the net difference between water intake and outputs. In Northam's case this will involve water withdrawn from:

- Third-party water (Municipal or other public or private water utilities);
- Surface water;[34]
- Groundwater (Boreholes);[36]
- Underground (Fissure water or water from underground); and
- Recycled (produced) water.

Third-party water: water consumed on site purchased from municipal or other public or private water utilities involved in the provision, transport, treatment, disposal or use of water and effluent.

Surface water: water that occurs naturally on the earth's surface in ponds, lakes, rivers and streams.

Groundwater: water that is being held in, and that can be recovered from, an underground formation and which is used by the operation.

Fissure water: water collected in the underground workings as a result of water seepage (inflow from groundwater aquifers) which is collected underground and pumped back to surface for reuse in the return water dam circuit.

Water from underground: Excess water collected from drilling equipment and / or cooling purposes.

Recycled (produced) water: Water that is recycled and reused (produced) at Northam's operations as a result of processing to produce its primary products[37] and has to consequently be managed by the operation[34], as a percentage of total water use. Recycled water must be

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[34] *Carbon Disclosure Project Water Security Reporting Guidance, 2018 in GRI 303 (Water and Effluents), 2018*

[35] *GRI Standards: reporting requirements for Disclosure 303 (Water and Effluents), 2018*

[36] *ISO 14046: 2014, in GRI 303 (Water and Effluents), 2018.*

[37] *GRI Standards: reporting requirements for Disclosure 303-3 (water recycled and reused)*

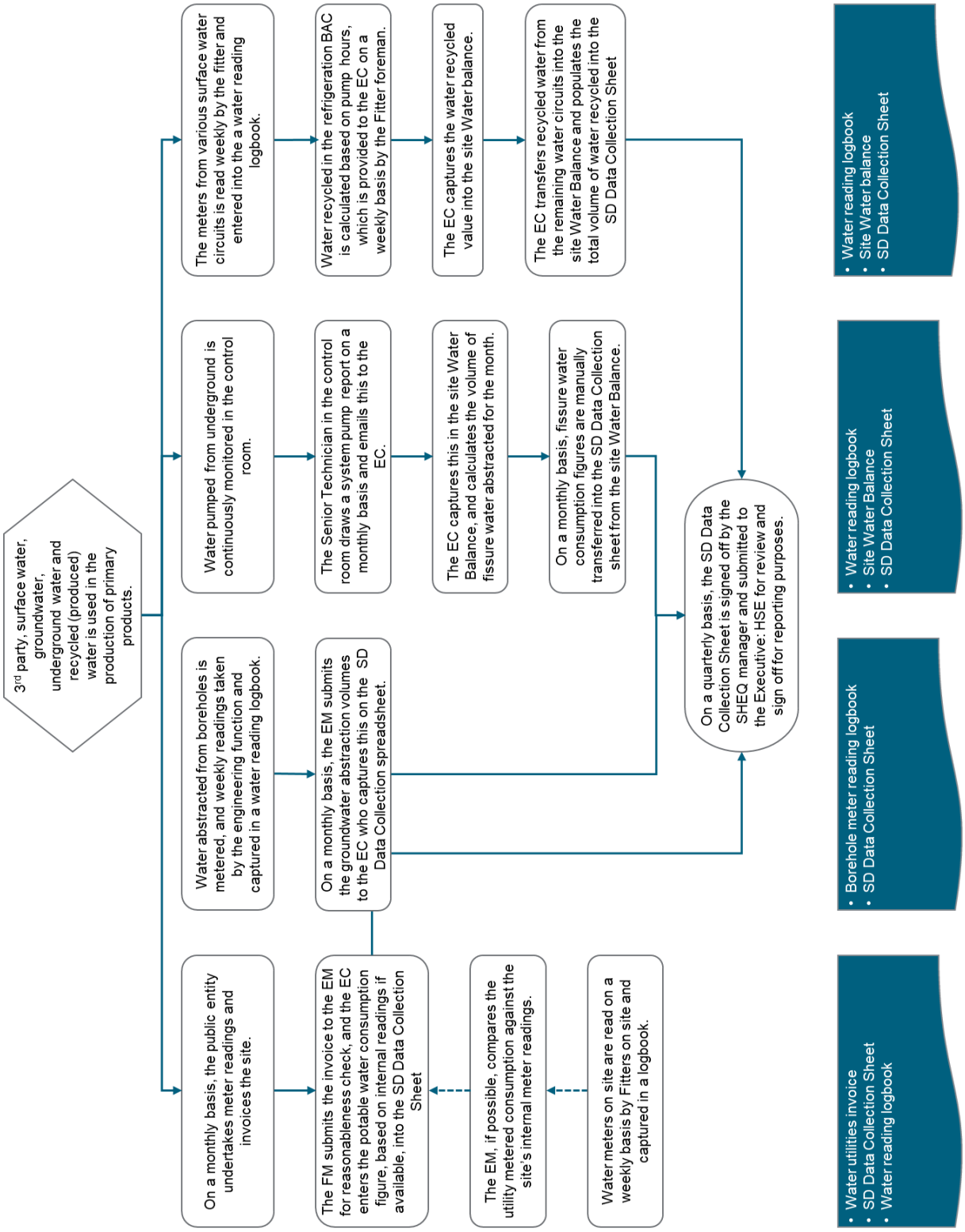
reported separately to avoid double counting. For Northam, the main streams of recycled water are:

- Water recycled back in the refrigeration cooling process;
- Industrial wastewater recycled through the sewage treatment facility; and
- Water recycled through the dirty water circuit.

Measurement unit:

- Cubic metres (m^3) or thousand cubic metres (000 m^3)
- % water recycled (produced).

Data collection process overview:



8.4. Water Discharge by quality and destination

Definition:

The total volume of authorised (planned) and unauthorised (unplanned) water discharge at Northam's operations[38], by destination and quality of the water. Destination includes to:

- Surface water;
- Groundwater;
- Seawater; and
- Third party water.

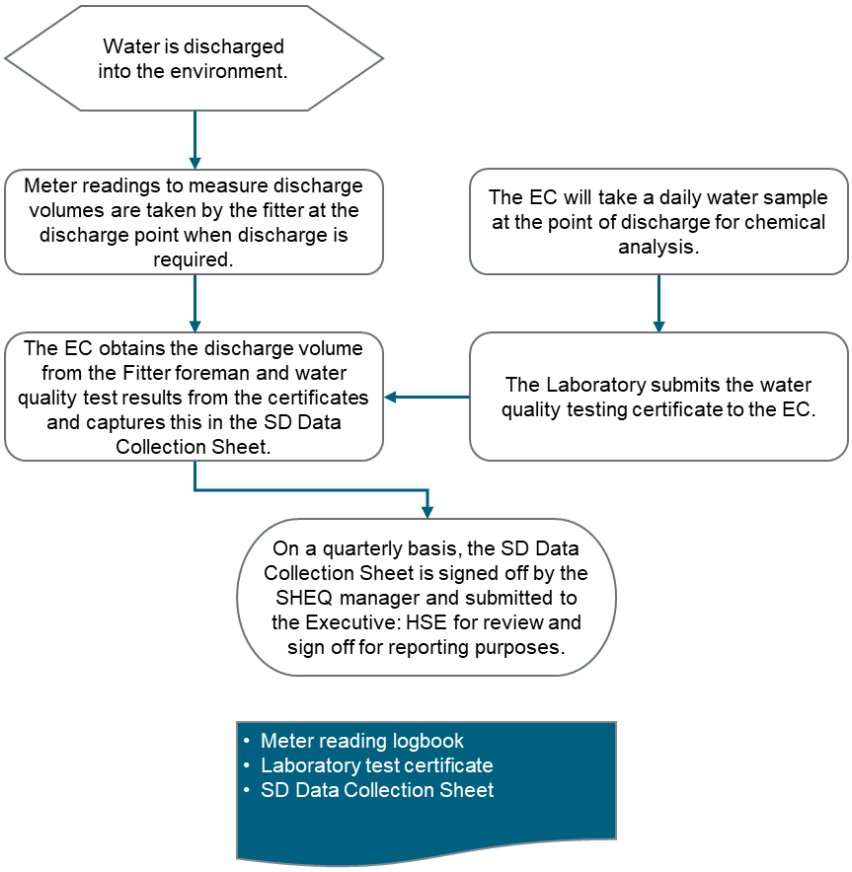
Water discharge: effluent, used water and unused water released to surface water, groundwater. Seawater or a third-party for which the operation has no further use for over the course of the reporting period.

Measurement unit:

- Cubic metres (m^3) or thousand cubic metres (000 m^3)
- Water quality measured by
    - Chemical Oxygen Demand (COD) in milligrams per litre (mg/l),
    - Total Dissolved Solids (TDS) in milligrams per litre (mg/l), and
    - Nitrates in milligrams per litre (mg/l).

[38] *GRI Standards: reporting requirements for Disclosure 303 (Water and Effluents), 2018*

Data collection process overview:



8.5. Materials Used

Definition:

Materials used: Total materials used at Northam's operations to produce its primary products[39], including materials purchased from external suppliers and those obtained from internal sources. This can include:

- Raw materials (i.e., natural resources used for conversion to products or services such as ores, minerals, and wood);
- Associated process materials (i.e., materials that are needed for the mining, concentrator, smelter, or base metal refining processes but are not part of the final product, such as lubricants);
- Semi-manufactured goods or parts, including all forms of materials and components other than raw materials that are part of the final product; and
- Materials for packaging purposes.

The most significant materials for Northam have been defined as:

- Diesel;
- Petrol;
- Coal;
- Timber;
- Explosives;
- Chemicals (oxygen, sulphuric acid, and sulphur dioxide);
- Grease; and
- Lubricating and hydraulic oils.

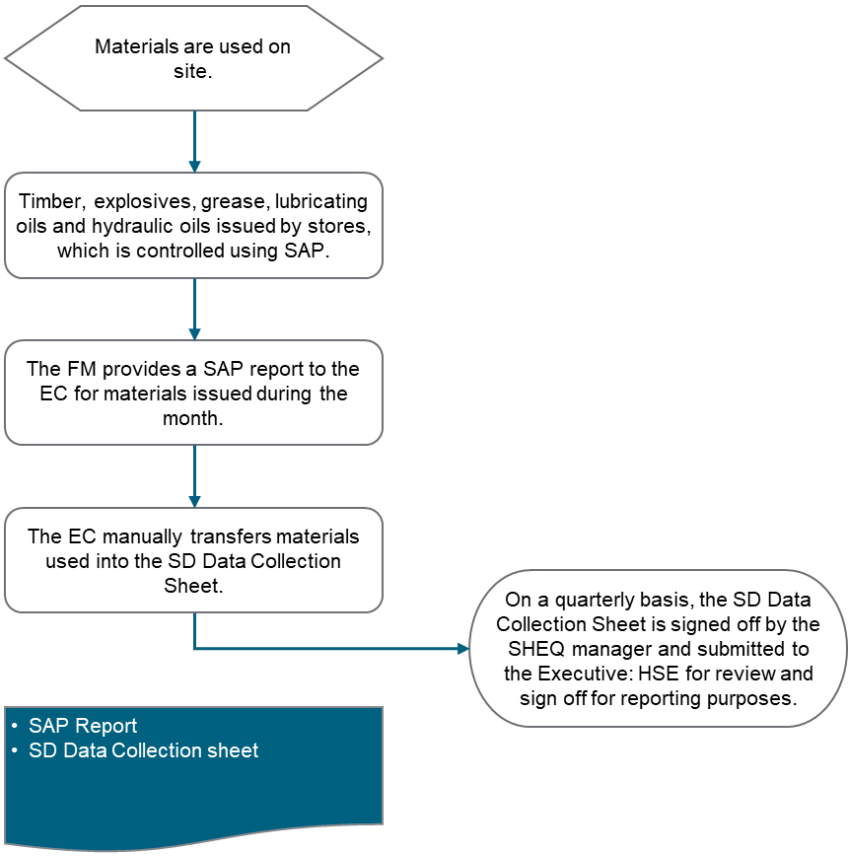
The data collection process of diesel, petrol and coal is described in *Section 5.1: Energy Use* above.

Measurement unit:

- Litres / tonnes / cubic metres (m^3).

[39] *GRI Standards: reporting requirements for Disclosure 301-1 (Materials used by weight or volume), 2016*

Data collection process overview:



8.6. Waste generated

Definition:

Total waste generated: Total weight of waste (excluding effluent) generated at Northam's operations (in metric tonnes), broken down by general waste, hazardous waste, and medical waste.[40]

General waste directed to disposal: the amount of domestic, building and demolition, business, or other inert waste[41] generated at Northam's operations that is disposed of:

- onsite at a registered general waste disposal facility; or
- offsite at a registered general waste landfill facility.[42]

General waste excludes hazardous waste, medical waste, and wastewater effluent.

Hazardous waste directed to disposal: The amount of waste containing organic or inorganic elements or compounds that, owing to the inherent physical, chemical or toxicological characteristics of the waste, have a detrimental impact on health and the environment[19] generated at Northam's operations that cannot be considered general waste. Hazardous waste directed to disposal and:

- treated or stored at a licensed hazardous waste facility;
- disposed of onsite in a licensed hazardous waste landfill site; or
- disposed of offsite at a licensed hazardous waste landfill site.

This should include the following as a minimum:

- heavy metal contaminated sludges;
- contaminated containers (reagent containers, oil/grease containers, anti-freeze drums, etc);
- fluorescent tubes;
- vehicle batteries,
- asbestos containing material; and
- oil contaminated material (gaskets, filters, soaking agents, rags, etc).

Medical Waste: medical waste generated at the medical centre which, owing to the inherent physical, chemical or toxological characteristics of the waste, has the potential to affect the health and wellbeing of people, livestock, or animals.

Waste diverted from disposal: The amount of waste, in metric tonnes, generated at Northam's operations that is diverted from disposal, and a breakdown of this total by composition of the

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[40] *GRI Standards: reporting requirements for Disclosure 306-3 (Waste generated), 2020*

[41] *Section 2 (definitions) of the National Environmental Management: Waste Act (Act 59 of 2008)*

[42] *GRI Standards: reporting requirements for Disclosure 306-5 (Waste directed to disposal), 2020*

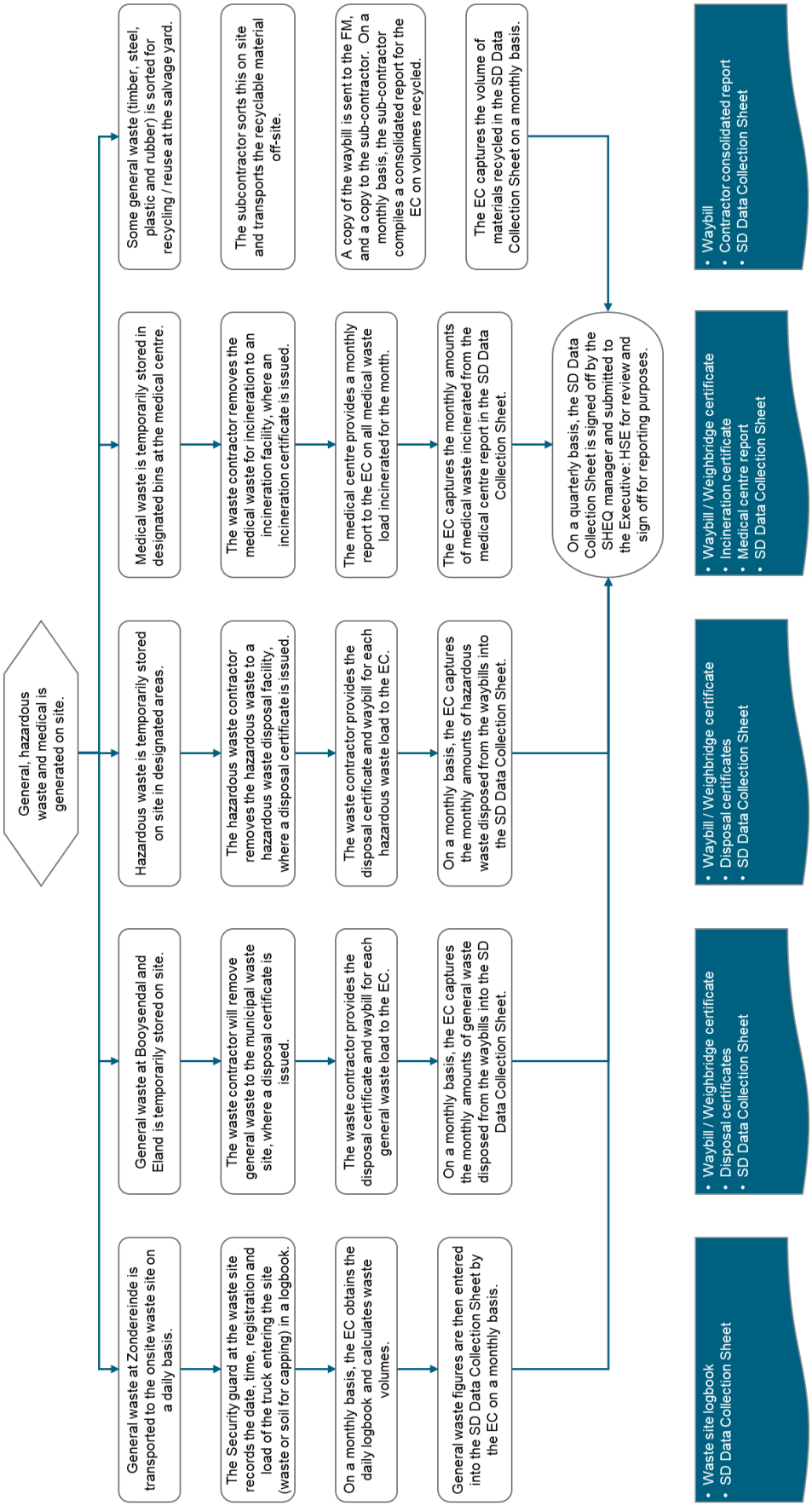
waste. This includes waste that is separated for recovery, reuse, or recycling at a salvage yard for further use by Northam or processing by a third party as a product or raw material.[43]

Measurement unit:

- Cubic meters (m^3).
- Litres (l) / cubic meters (m^3) / kilograms (kg), as stated on the disposal certificate and / or waybill.

[43] *GRI Standards: reporting requirements for Disclosure 306-4 (Waste directed from disposal), 2020*

Data collection process overview:



8.7. Environmental Incident Reporting

Definition:

Environmental incident: an unexpected or sudden occurrence, including emissions of substances, noise, odours, dust or heat, which results or has the potential to result in the pollution of the natural environment or the composition, resilience or productivity of natural or managed ecosystems and which has the potential to adversely affect human health.[44]

Reportable environmental incident: An environmental incident at the Zondereinde, Booysendal or Eland operation that, due to loss of containment of the emission, results in significant[45] environmental pollution:

- The effects of which persist for a long time;
- Requiring substantive remediation at great cost or cannot be remediated; or
- That poses a risk to human health and wellbeing in the receiving environment.

and are required to be reported to the relevant authorities in terms of environmental legislation. Typically, these are classified as Level 3 / high impact incidents, based on site specific incident reporting procedures or standards.

Non-reportable environmental incidents: Environmental incidents at the Zondereinde, Booysendal or Eland operations that can be contained or easily remediated to prevent or minimise environmental pollution, such that effects are temporary and do not pose a risk to human health or wellbeing in the receiving environment. Depending on threshold values specified in terms of environmental legislation, these incidents need not be reported to the relevant authorities. Typically, these are classified as Level 1 or 2 / low or moderate impact incidents, based on site specific incident reporting procedures or standards.

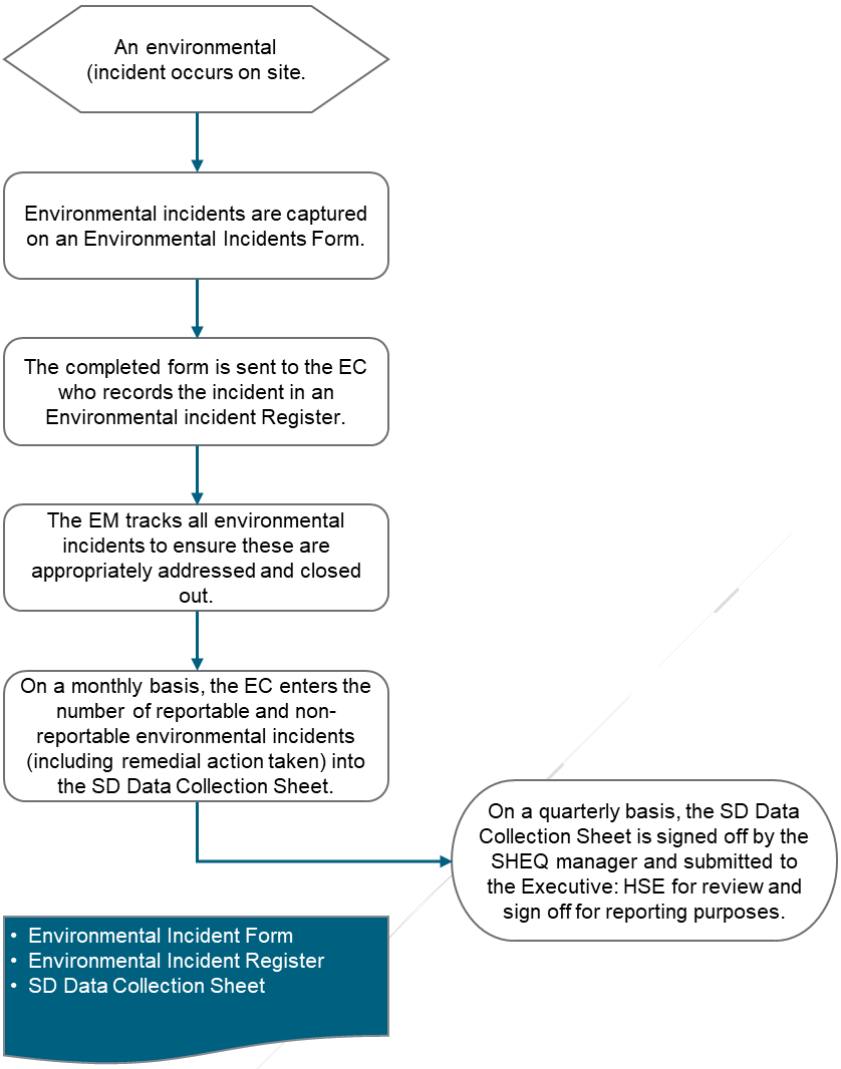
Measurement unit:

- Number of reportable environmental incidents (including remedial action taken).
- Number of non-reportable environmental incidents.

[44] *Section 1 (Definitions) and 30 (control of emergency incidents) of the National Environmental Management Act (Act 107 of 1998)*

[45] *Significant, in terms of the Department of Environmental Affairs Guidelines on the Administration of Incidents, as Described in Section 30 of NEMA, is defined as a being "large enough to be noticeable or have noticeable effects"*

Data collection process overview:



8.8. Land Use

Definition:

Total land under management: Land falling under the direct management of Northam Platinum (including land covered by surface rights, or occupied by third parties), but excluding all land leased and undeveloped projects / prospects where the land does not yet fall under the direct management of Northam Platinum. [46]

Land disturbed by mining and related activities: land that has been physically or chemically disturbed due to Northam's mining and related activities, including the shaft complex, concentrators, smelter complex, waste dump, rock dumps, tailings disposal facility and water return dams, including (administrative and residential) which has not been rehabilitated during the year (opening balance) or newly disturbed within the reporting period.

Rehabilitated land: land that has been rehabilitated to a natural land use type or land use type that occurred prior to mining activities started. This could also include land that has been restored to an agreed (with DMR and stakeholders) post-mine closure land use i.e. recreational use, industrial use etc.

Land protected for conservation: land that occurs within a biodiversity priority area, as identified in a national or provincial biodiversity offset and conservation program, which will be rehabilitated or will remain in an original state, in order to achieve the specific purpose of conserving biodiversity and maintaining ecosystem health and services.

Land leased for farming purposes: land falling under the direct management of Northam Platinum, including land covered by surface rights, occupied or leased by third parties and which is used for the primary production, storage, distribution or trading of agricultural products, including any commodity of vegetable and animal origin or which is produced from a substance of vegetable or animal origin.[47]

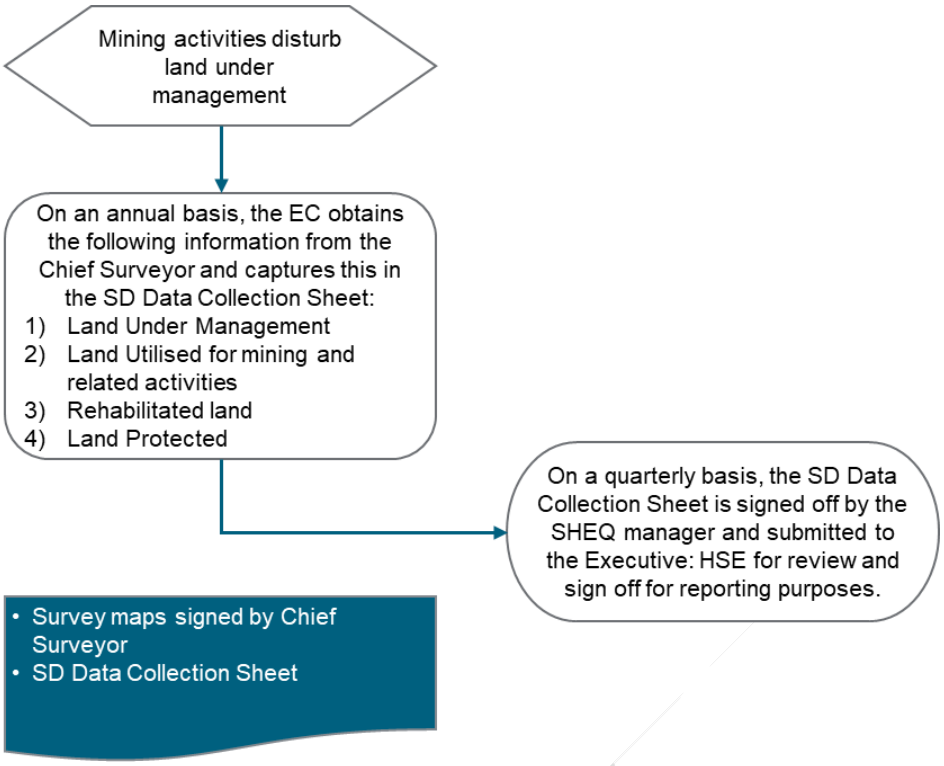
Measurement unit:

- Hectares (Ha).

[46] *GRI G4 Mining and Metals Sector Disclosures: Indicator MM1*

[47] *Agricultural Product Standards Act 119 of 1990*

Data collection process overview:



8.9. Closure and Rehabilitation Costs

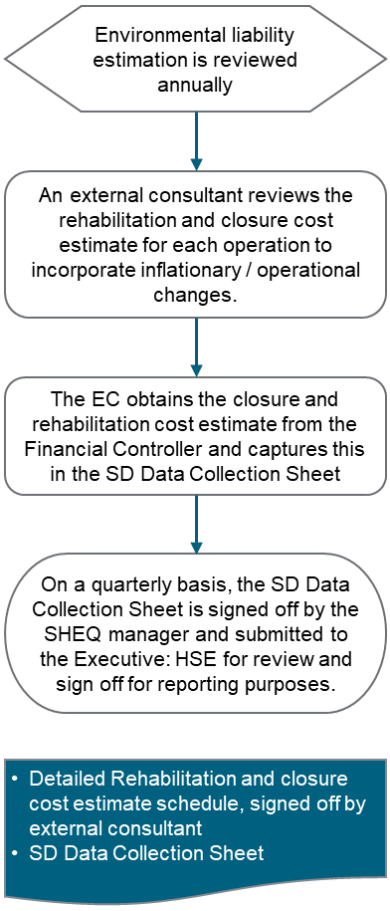
Definition:

The Environmental liability estimation and provisions required to undertake an agreed works programme (Rehabilitation or Closure Plan) and rehabilitate mining and production areas[48] to an approved, sustainable end state of land use.[49]

Measurement unit:

- South African Rand (ZAR).

Data collection process overview:



[48] *Section 1 (definitions) in the MPRDA.*

[49] *Proposed regulations pertaining to financial provisioning for the rehabilitation and remediation of environmental damage caused by reconnaissance, prospecting, exploration, mining or production operation, GN 667 of 17 May 2019.*

8.10. Sulphur Dioxide (SO_2) emissions

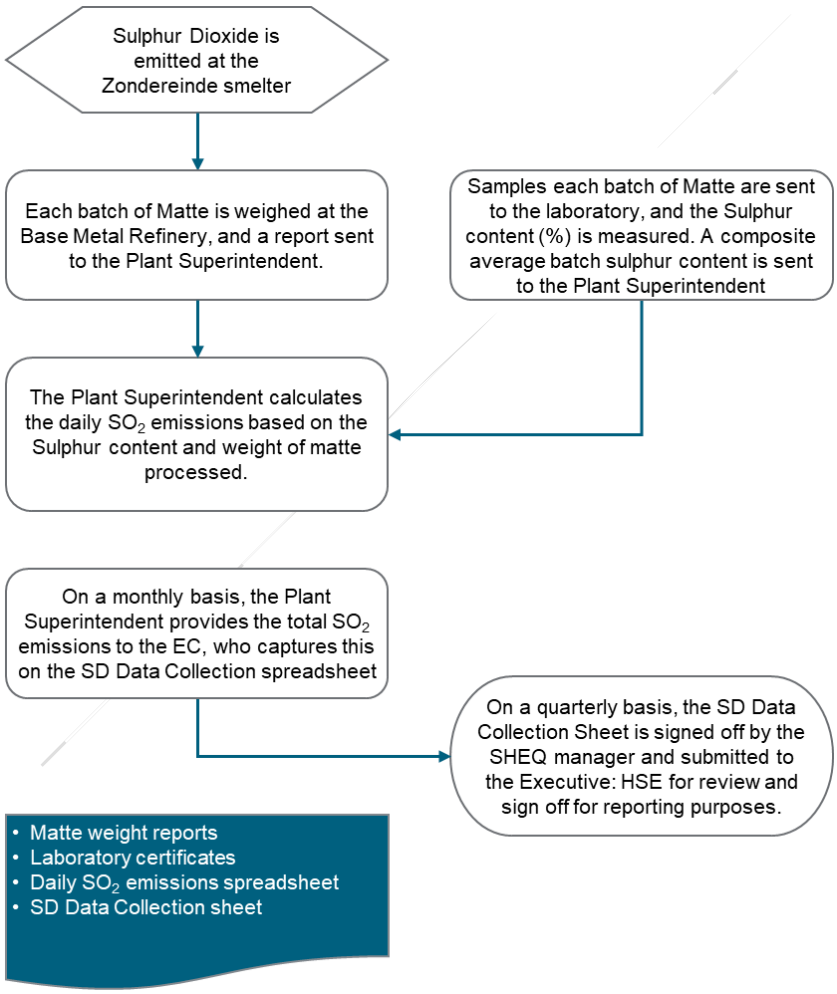
Definition:

Significant air emissions into the atmosphere of sulphur and its compounds formed due to combustion or production processes from the Zondereinde smelting facility, based on site-specific data.[50]

Measurement unit:

- Tonnes (tons / t)

Data collection process overview:



[50] *GRI Standards: reporting requirements for Disclosure 305-7 (Nitrogen oxides (NO_x), sulphur oxides (SO_x) and other significant air emissions), 2016*

8.11. Greenhouse Gas emissions

Definition:

GHG emissions: Carbon dioxide equivalent (CO_2e) emissions, including carbon dioxide (CO_2), methane (CH_4) and nitrous oxide (N_2O), based on their Global Warming Potential (GWP) factors issued by the Intergovernmental Panel on Climate Change (IPCC). For reporting purposes, Total GHG emissions, comprising direct (Scope 1) and indirect (Scope 2 and Scope 3) emissions, are calculated using IPCC emissions factors specified in the Department of Environmental Affairs' *Technical Guidelines for Monitoring, Reporting and Verification of Greenhouse Gas Emissions by Industry* ("*Technical Guidelines*") or in the *IPCC Guidelines for National Greenhouse Gas Inventories (2006)*(IPCC 2006) if not specified in the Technical Guidelines[51]:

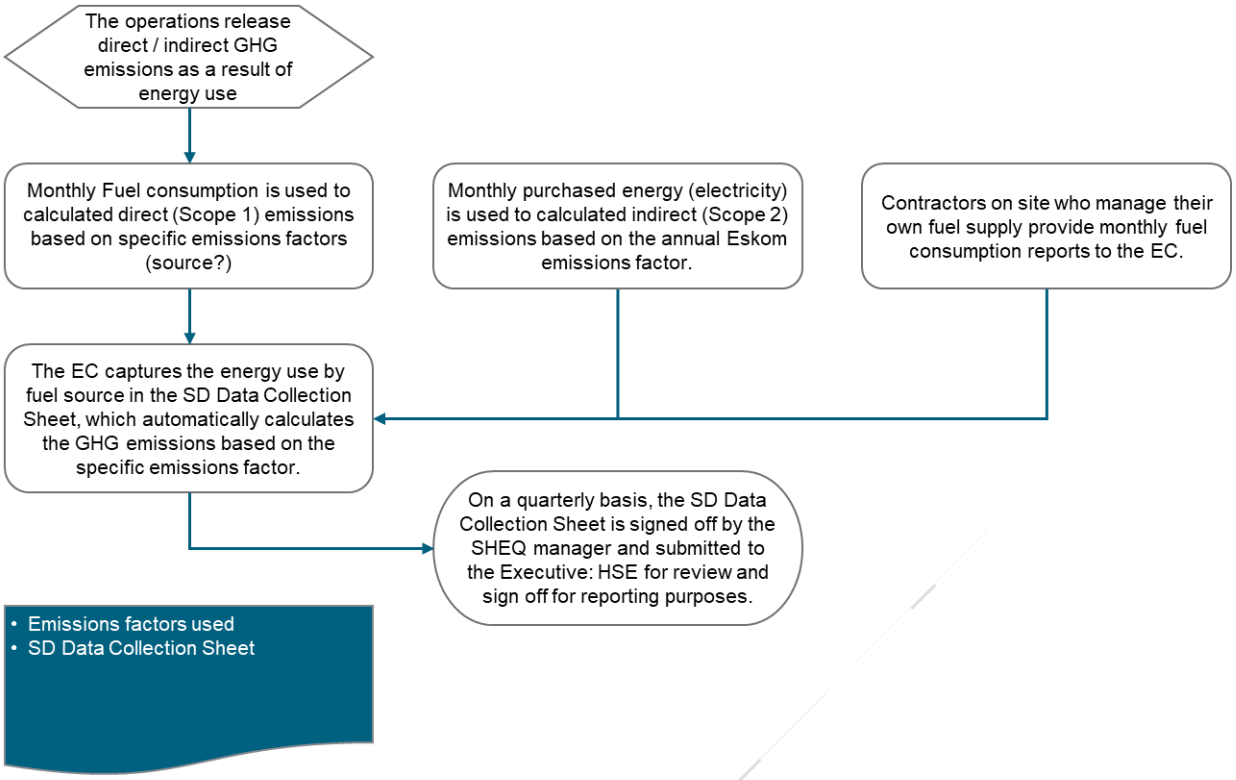
- *Direct emissions: e*missions from sources that are owned or controlled by Northam e.g. direct emissions related to combustion would arise from burning fuel for energy within Northam's operational boundaries.
- *Indirect emissions: e*missions that result from the activities of Northam but are generated from sources owned or controlled by another organization. In the context of this indicator, indirect emissions refer to GHG emissions from the generation of electricity, imported and consumed by Northam (Scope 2) as well as other sources including emissions attributable to contractors transporting waste rock and recyclable waste on site (Scope 3).

Measurement unit:

- Scope 1, 2 and 3 emissions in tonnes of carbon dioxide equivalent (CO_2e).

[51]*National Environmental Management: Air Quality Act 39 of 2004): National Greenhouse Gas Emission Reporting Regulations, GN 275 of April 2017.*

Data collection process overview:



8.12. Greenhouse Gas emissions intensity

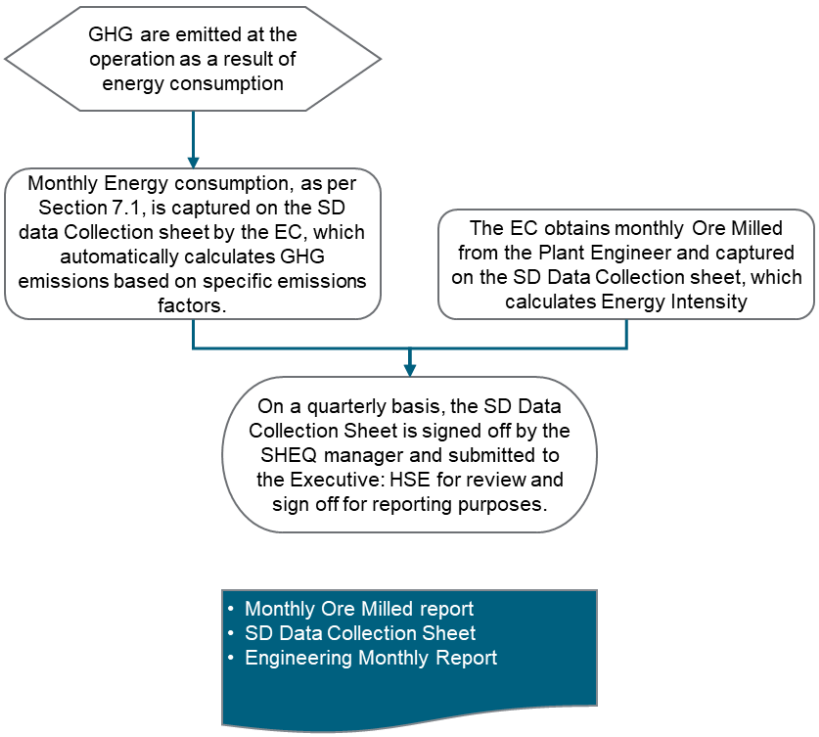
Definition:

GHG emissions intensity: a measure of the efficiency of GHG emissions, in relation to the run of mine (ROM) material milled at the Booysendal, Zondereinde or Eland operations during the reporting period, [52]

Measurement unit:

- Tonnes of carbon dioxide equivalent (CO_2e) per tonne ore milled.

Data collection process overview:



[52] *GRI Standards: reporting requirements for Disclosure 305-4 (GHG emissions intensity), 2016*

8.13. Non-compliance with environmental laws and regulations

Definition:

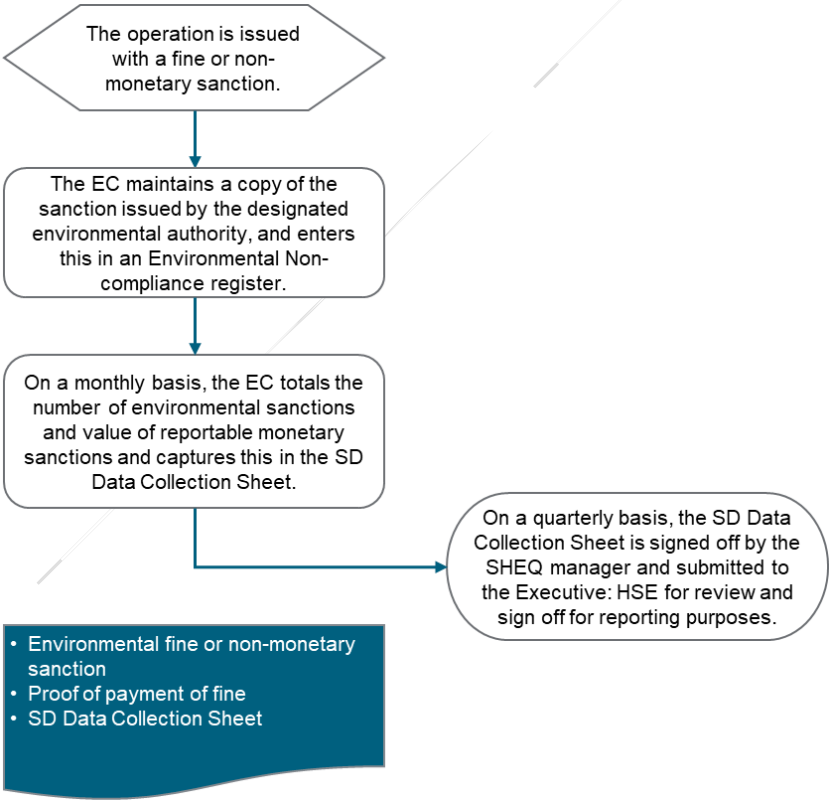
Non-monetary sanctions (including directives in response to a contravention of environmental laws and regulations) or significant fines issued against at Northam's operations[53] by authorities for non-compliance with environmental laws and / or regulations.

Significant fine: a monetary fine issued by a designated environmental authority for non-compliance with environmental laws and regulations, which exceeds R 1 000 000.

Measurement unit:

- Monetary value of significant fines, in South African Rands (ZAR).
- Number of non-monetary sanctions issued.

Data collection process overview:



[53] *GRI Standards: reporting requirements for Disclosure 307-1 (Non-compliance with environmental laws and regulations), 2016*