

INTEGRATED MANAGEMENT SYSTEM

ASBESTOS MANAGEMENT PROCEDURE

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I, the undersigned hereby approve this procedure.

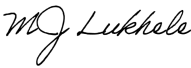
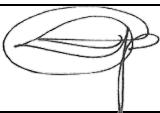

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1. PURPOSE

The purpose of this procedure is to provide guidelines and a process for the identification, recording, reporting, effective investigation, monitoring and management of asbestos-contaminated material and products. The procedure seeks to clarify roles, responsibilities and accountabilities of all role players for Transnet SOC Ltd (hereafter referred to as "Transnet") to ensure proper and timeous implementation of corrective and preventive actions for asbestos exposures by our employees, contractor, and visitors.

2. APPLICABILITY

This Asbestos Management Procedure (AMP) applies to all Transnet employees, contractors, and visitors who may be in contact with or disturb asbestos-containing materials—on Transnet premises.

3. REFERENCE DOCUMENTS

NAME	REFERENCE	APPLICABLE SECTIONS
Asbestos Abatement Regulations	Published under Government Notice R1196 in GG 43893 of 10 November 2020	All Sections
Competence, Awareness, and Training Procedure	TRN-IMS-GRP-PROC-08	Clause 6.2.6
Construction Regulations	2014	All Sections
Contractor Management Procedure	TRN-IMS-GRP-PROC-014	All clauses of the procedure
Document Data and Record Management	TRN-IMS-GRP-PROC-10	6.11.7, 6.11.8 and 7
Norms and Standards for Disposal of Waste by Landfill site	Published on 23 August 2013	Regulation 4
Occurrence and Non-Conformance Management Procedure	TRN-IMS-GRP-PROC-013	All clauses of the procedure
Operational Planning and Control Procedure	TRN-IMS-GRP-PROC-09	All clauses of the procedure

4. DEFINITIONS AND ABBREVIATIONS

4.1 Definitions

Asbestos refers to the following fibrous silicates:

- asbestos actinolite, CAS No. 77536 -66 -4;
- asbestos grunerite (amosite), CAS No. 12172 -73 -5;
- asbestos anthophyllite, CAS No. 77536 -67 -5;
- chrysotile, CAS No. 12001 -29 -5 or CAS No. 132207 -32 -0;
- crocidolite, CAS No. 12001 -28 -4;
- asbestos tremolite, CAS No. 77536 -68 -6; and
- any mixture containing these fibrous silicates.

Asbestos - Containing Material: Means asbestos as well as any material that contains asbestos and includes asbestos cement products, asbestos coating, asbestos insulation board, asbestos insulation, asbestos textured decorative coatings, asbestos-contaminated soil, and other asbestos-containing materials.

Asbestos cement products: refers to a range of building materials that were manufactured using moulding and compression techniques, consisting of a hardened mixture of asbestos fibres, cement and water.

Asbestos clearance certificate: A written document verifying that the regulated asbestos fibre concentration in the air meets the clearance indicator.

Asbestos client: Any person for whom asbestos work is performed; "asbestos coating" means a surface coating which contains asbestos for fire protection, heat insulation or sound insulation, but does not include textured decorative coatings.

Asbestos-containing material: Means asbestos as well as any material that contains asbestos and includes asbestos cement products, asbestos coating, asbestos insulation board, asbestos insulation, asbestos textured decorative coatings, asbestos contaminated soil and other asbestos-containing materials.

Asbestos disposal site: A site specifically designated for the purpose of asbestos disposal in terms of the National Environmental Management: Waste Act, 2008 (Act No. 59 of 2008).

Asbestos dust: Airborne or settled dust, which contains or is likely to contain regulated asbestos fibres.

Asbestos in place: Includes any asbestos, asbestos cement products, asbestos coatings, asbestos-containing material, asbestos dust, asbestos insulation, asbestos insulation board and asbestos waste at the workplace.

Asbestos insulation: Any asbestos-containing material, which is used for thermal, acoustic or other insulation purposes, including fire protection, except:

- Asbestos cement, asbestos coating or asbestos insulating board; and

- An article of bitumen, plastic, resin or rubber, which contains asbestos and which thermal and acoustic properties are incidental to its main purpose.

Asbestos insulating board: Means any flat sheet, tile or building board consisting of a mixture of asbestos and cement or any other material, but which is not:

- Asbestos coating; and
- An article of bitumen, plastic, resin or rubber, which contains asbestos and which thermal and acoustic properties are incidental to its main purpose.

Asbestos removal site: Means a workplace where asbestos removal work is performed.

Asbestos removal supervisor: A competent person responsible for supervision of physical asbestos work processes and coordination of asbestos removal on an asbestos removal site.

Asbestos risk assessment: Means a risk assessment and risk categorisation of potential exposure to asbestos dust.

Asbestos waste: Refers to undesirable or superfluous asbestos or asbestos containing product or by-product or the undesirable or superfluous asbestos or asbestos-containing emission or residue of any process or activity, which has been:

- discarded by any person; and
- Accumulated and stored temporarily with the purpose of discarding it, with or without prior treatment connected with the discarding thereof.

Asbestos work: Means work that exposes or is likely to expose an employee to asbestos dust, including transporting, storing, removing, handling, treating, repairing and disposing of asbestos.

Contaminated Land: This means any Transnet owned or leased land or buildings that have the presence of asbestos fibre or pollution or may affect the quality of the soil or environment adversely.

Chief Director: Provincial Operations: Means the provincial director as defined in regulation 1 of the General Administrative Regulations, 2003, published as Government Notice R.929 in Gazette No. 25129 of 25 June 2003.

Clearance indicator: Means the measured airborne concentration of regulated asbestos fibres is less than 0, 01 fibres per millilitre (f/ml), as measured in accordance with HSG 248 or an equivalent method.

Competent person: A person who-

- has, in respect of the work or task to be performed, the required knowledge, training and experience and, where applicable, qualifications specific to asbestos work or related tasks: Provided that, where appropriate qualifications and training are registered in terms of the National Qualifications Framework Act, 2008 (Act No. 67 of 2008), those qualifications and that training must be regarded as the required qualifications and training; and

- Is familiar with the Act and the applicable regulations made under the Act.

Demolition work: A method to dismantle, wreck, break, pull down or knock down a structure or part thereof by way of manual labour, machinery or the use of explosives.

Environmental air monitoring: Includes static air monitoring for regulated fibres conducted downwind from outdoor type 2 asbestos work or outside asbestos enclosures where type 3 asbestos work is performed or in any area where there is the potential for asbestos contamination.

Environment: Means surrounding within which humans exist and that are made up of:
(i) The land, water, atmosphere of the earth;
(ii) Microorganisms, plant, and animal life;
Any part or combination of (i) and (ii) and the interrelationships among and between them;
and,
(iii) The physical, chemical, aesthetic and cultural properties and conditions of the foregoing that influence human health and well-being.

Exposed to asbestos: Means exposed or likely to be exposed to asbestos dust while at the workplace.

Exposure: Has a corresponding meaning.

Incidental asbestos exposure: Means unintentional exposure to airborne asbestos at a workplace where asbestos is present.

Non-asbestos-related work: Includes work performed in the vicinity of asbestos containing materials or asbestos cement products, but excludes work performed on or with asbestos-containing materials or asbestos cement products.

OEL: Means the occupational exposure limit, the value of which is set by the Minister, for a stress factor in the workplace.

OEL for asbestos: Means an occupational exposure limit of 0, 1 regulated asbestos fibres per millilitre of air measured in accordance with HSG 248.

Asbestos contractor: Means either a contractor, a mandatory or an employer who conducts type 2 asbestos work or type 3 asbestos work or asbestos removal work, who is registered with the chief inspector.

Regulated asbestos area: Means an area demarcated and controlled as contemplated in regulation 18 of the Asbestos Abatement Regulations, 2020.

Regulated asbestos fibre: Means a particle of asbestos with a length-to-diameter ratio greater than 3 to 1, a length greater than 5 micrometres and a diameter less than 3 micrometres.

Remediation: The management of a contaminated site to prevent, minimise, or mitigate damage to human health or the environment. Remediation may include both direct physical actions (e.g. removal, destruction, and containment of contaminants) and institutional controls.

Remediation objective: A numerical limit or narrative statement that has been established to protect and maintain a specified use of soil at a particular site by taking into account site-specific conditions.

Removal of asbestos: Means all tasks included in the process of removing asbestos from the location specified in the inventory of asbestos in place to the final disposal site.

Repair of asbestos-containing materials: Means restoring asbestos-containing materials to a safe condition, after damage, using non-destructive methods in a manner that does not cause the release of asbestos fibres.

Respiratory protective equipment: Means a device, which is worn over at least the mouth and nose to control the inhalation of air that is not safe.

Risk assessment: A process designed to determine the qualitative aspects of hazard identification and usually a quantitative determination of the level of risk based on deterministic or probabilistic techniques.

Risk categorisation: Means the grouping and ordering of potential asbestos exposure risks as contemplated in regulation 5(3) 18 of the Asbestos Abatement Regulations, 2020.

Short-term exposure limit: Means a short-term exposure limit of 0, 6 regulated asbestos fibres per millilitre of air, measured over a continuous 10-minute period.

Type 1 asbestos work:

- painting of asbestos cement products in a manner that does not require surface preparation and does not cause the release of asbestos fibres; or
- the removal of less than 10 square metres of asbestos cement products or equivalent gutters and piping or asbestos insulating board, where removal work may not be repeated on the same site within a period of six months; and, does not require registration as a registered asbestos contractor with the chief inspector.

Type 2 asbestos work:

- the repair or encapsulation of asbestos cement products in a manner that does not require surface preparation; or
- the removal of asbestos cement products or asbestos insulating board; and, requires registration as a type 2 registered asbestos contractor with the chief inspector.

Type 3 asbestos work: The removal, repair or encapsulation of any asbestos and asbestos-containing material; and, requires registration as a type 3 registered asbestos contractor with the chief inspector.

UN Transport of Dangerous Goods: Means the UN Recommendations on the Transport of Dangerous Goods – Model Regulations, Volumes 1 and 2, which are guidance documents developed by the United Nations to harmonise dangerous goods transport regulations, may be updated from time to time, and are commonly known as the UN Orange Book.

Waste classification- Means establishing:

- whether a waste is hazardous based on the nature of its physical, health and environmental hazardous properties (hazard classes); and
- the degree or severity of hazard posed (hazard categories).

4.2 Abbreviations

ACM	Asbestos-Containing Material
ACW	Asbestos-Containing Waste
AIA	Asbestos Inspection Authority
AMP	Asbestos Management Procedure
CCP	Compliance Control Plan
DFFE	Department of Forestry, Fisheries and Environment
DoEL	Department of Employment and Labour
DWS	Department of Water and Sanitation
IMS	Integrated Management System
MEC	Member of Executive Committee
NEW: WA	National Environmental Management: Waste Act, Act 59 of 2008
ODs	Operating Divisions
OEL	Occupational Exposure Limit
OEP	Occupational Exposure profile
OHM/N	Occupational Health Manager/Nurse
OHS Act	Occupational Health and Safety Act, Act 85 of 1993
PPE	Personal Protective Equipment
RMC	Risk Management Committee
SABS	South African Bureau of Standards
SAR	Site Assessment Report
SANS	South African National Standards
TREM	Transport Emergency Control
UN	United Nations

5. ACCOUNTABILITY, RESPONSIBILITY AND AUTHORITY

Top Management	<ul style="list-style-type: none"> ▪ Overall accountability of this procedure; ▪ Guide the overall occurrence and non-conformance management; ▪ Demonstrate commitment to the development and implementation of occurrence and non-conformance management procedure;
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	<ul style="list-style-type: none"> ▪ Ensure availability of financial, human, and organisational resources; ▪ Communicate to all employees regarding occurrence trends; and <ul style="list-style-type: none"> • Monitor implementation procedure.
Chief Legal Officer (CLO)	<ul style="list-style-type: none"> ▪ Ensure compliance with this procedure.
Senior Management	<ul style="list-style-type: none"> ▪ Communicate requirements of the procedures and ensure adherence; ▪ Ensure adequacy and integrity of data and information; ▪ Analysis of the occurrence trends, initiate and communicate action plans; ▪ Ensure corrective and preventative actions are implemented to address the root cause(s); ▪ Provide required training and awareness, and maintain records for all personnel; ▪ Ensure effective communication on how measurements and targets will be met; and ▪ Monitor and review implementation of the procedure.
Line Management	<ul style="list-style-type: none"> ▪ Communicate requirements of the procedures and ensure adherence; ▪ Ensure adequacy and integrity of data and information; ▪ Analysis of the occurrence trends, initiate and communicate action plans; ▪ Implement this procedure; ▪ Notify, report, and record occurrences; ▪ Conduct occurrence investigations; ▪ Ensure relevant competencies are in place to implement this procedure; and ▪ Implement recommendations, corrective and preventative actions.
Safety Manager/Specialists	<ul style="list-style-type: none"> ▪ Take a lead in providing necessary guidance for the management of asbestos located in Transnet buildings; ▪ Ensure that a written safe work is developed and followed; ▪ Provide adequate information, instruction, and training ▪ Provide an up to date inventory of asbestos in place to the registered contractor and approved inspection authority; ▪ Review and update asbestos inventory; ▪ Ensure that risk assessments are carried out before asbestos work ▪ Appoint, in writing the Approved Inspection Authority;



	<ul style="list-style-type: none"> ▪ Ensure that appropriately registered asbestos contractor performs type 2 or 3 as per asbestos plan of work; ▪ Ensure that notification of asbestos work is given within seven days to the Department of Labour and Employment Chief Director: Provincial Operations as per Annexure 4; ▪ Stop any registered contractor asbestos from executing any asbestos work which poses health or safety risks to persons until such time the risk has been appropriately mitigated; ▪ Ensure that before asbestos work commences, the registered asbestos contractor is registered and in Good Standing with the Compensation for Occupational Injuries and Diseases Act, 1993 (Act No 130 of 1993); and ▪ Where a fatality or permanent disability occurs during asbestos work, report such fatality or injury to the Chief Director: Provincial Operations as contemplated in section 24 of the Act and in accordance with section 8 and 9 of the General Administrative Regulations, 2003.
Environment Manager/Specialists	<ul style="list-style-type: none"> ▪ Notify the Minister of Forestry, Fisheries and Environment (DFFE) or MEC of Provincial Environment Department as per the requirements of Part 8 of the National Environment Management: Waste Act, 58 of 2008 using the template included as Annexure 5 of the contaminated land, or plan to undertake the activity that may or has caused contamination of land; ▪ Undertake site assessment to determine the level of contamination on the land; ▪ Conduct risk assessment, to determine the impact of contamination on health and the environment including pathway/source of contamination and receptors; ▪ Develop Remedial Action Plans for risks/contamination that has been identified on sites; ▪ Submit Site Assessment Report (SAR) to DFFE; ▪ Receive a decision and implement remediation orders from DEFF; ▪ Report on the progress on the asbestos remediation and phasing out to OD EXCOs; and ▪ Ensure that asbestos is disposed of in a designated hazardous landfill site if disposal is the preferred option.



Employees	<ul style="list-style-type: none"> ▪ Adhere to this procedure and cooperate with management; ▪ Carry out instructions issued in the interest of this procedure; ▪ Attend training and awareness; ▪ Report all occurrences in line with the requirements of this procedure; ▪ Participate in the successful implementation of corrective action plans. ▪ Comply with the instructions issued by Transnet concerning asbestos management requirements as per applicable legislation; ▪ Familiarise and adhere to the contents of the Asbestos Management Standard Operating Procedure; ▪ Familiarise themselves with hazards associated with working with asbestos; ▪ Use appropriate PPE, equipment, and materials provided for handling and working with asbestos; ▪ Attend required training provided by the organisation; ▪ Report suspected asbestos-containing material or contaminated sites to Supervisors, Safety or Environment Department; ▪ Ensure that no asbestos or asbestos-contaminated material is disposed in waste bins for general waste; and ▪ No cleaning, damaging, disturbing, or removing asbestos-containing materials unless they are trained and authorised to do so.
Approved Authority Inspection	<ul style="list-style-type: none"> ▪ An approved inspection authority involved in type 2 or type 3 asbestos work shall: <ul style="list-style-type: none"> ○ ensure that the appropriately registered asbestos contractor performs only type 2 or type 3 asbestos work, as the case may be; ○ obtain a copy of an up-to-date inventory of asbestos in place from the asbestos client prior to asbestos work taking place; ○ in consultation with the registered asbestos contractor, compile a plan of work in accordance with regulation 15; ○ approve and submit the plan of work at least seven days prior to commencement of asbestos work to the Chief Director: Provincial Operations for acknowledgement; ○ receive acknowledgement from the Chief Director: Provincial Operations within the seven-day period;



	<ul style="list-style-type: none"> ○ confirm the employee medical certificate of fitness and asbestos training records for that asbestos work; ○ provide guidance and site-specific instructions to the registered asbestos contractor on the approved plan of work; ○ inspect adherence to the approved plan of work and requirements of the Regulations; ○ stop any registered asbestos contractor from executing any asbestos work which poses a health or safety risk to persons until such time that the risk has been appropriately mitigated; ○ perform planned asbestos air monitoring in accordance with regulation 16 of the Asbestos Abatement Regulations, 2020 and provide, as soon as is reasonably practicable, air monitoring results to the registered asbestos contractor and asbestos client; ○ issue a written report, which includes findings and, where necessary, recommendations; and ○ ensure that, upon completion of type 2 or type 3 asbestos work, clearance is performed as required in regulation 22 of the Asbestos Abatement Regulations, 2020.
Asbestos contractor for asbestos work	<ul style="list-style-type: none"> ▪ In the case of type 2 and type 3 asbestos work, the registered asbestos contractor shall: <ul style="list-style-type: none"> ○ undertake only the type of asbestos work for which they are registered by the chief inspector; ○ appoint an occupational health and safety representative as contemplated in section 17 of the Asbestos Abatement Regulations, 2020; ○ obtain a copy of an up-to-date inventory of asbestos in place from the asbestos client, prior to asbestos work taking place. ▪ Before commencement of any asbestos work and during such work, the registered asbestos contractor shall ensure that a risk assessment is performed which includes: <ul style="list-style-type: none"> ○ identification of the hazards to which persons may be exposed; ○ an assessment of the risks related to the hazards based on a documented method; and ○ documented control measures to mitigate the risk; ○ the risk assessment contemplated in sub-regulation (a) is reviewed: <ul style="list-style-type: none"> ○ at regular documented intervals;



	<ul style="list-style-type: none"> ○ when an incident has occurred; and ○ when the scope of work changes; and ○ an up-to-date copy of the risk assessment is made available at the relevant asbestos work site. <ul style="list-style-type: none"> ▪ The registered asbestos contractor shall: <ul style="list-style-type: none"> ○ ensure that the approved plan of work is submitted to the Chief Director: Provincial Operations at least seven days prior to commencement of asbestos work; ○ appoint in writing an asbestos removal supervisor for each asbestos work site, who shall ensure: <ul style="list-style-type: none"> ○ occupational health and safety compliance on the asbestos removal site; ○ compliance with safe asbestos removal or repair procedures; ○ the correct use of personal protective equipment; and ○ proper decontamination and waste disposal. ○ adhere to the repair or removal methodology and associated control measures provided in the plan of work approved for that specific asbestos work; ○ ensure that the employee medical and training records are available on site for inspection and validation; ○ ensure that at least the following information for every employee is recorded and kept for a minimum period of 50 years: <ul style="list-style-type: none"> ○ Physical address of every asbestos work project; and ○ names and identification numbers of employees potentially exposed; ▪ before commencement of asbestos work, ensure that: <ul style="list-style-type: none"> ○ an approved inspection authority has been appointed in writing by the asbestos client; and ○ the registered asbestos contractor is registered and in good standing with the Compensation Fund or with a licensed compensation insurer as contemplated in the Compensation for Occupational Injuries and Diseases Act, 1993; and ▪ where a fatality or permanent disabling injury occurs during asbestos work, ensure that a report about the
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	fatality or injury is provided to the Chief Director: Provincial Operations as contemplated in section 24 of the Act, and in accordance with regulations 8 and 9 of the General Administrative Regulations, 2003, and that the report includes the measures that the contractor intends to implement to ensure safe asbestos work.
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6. PROCEDURE

6.1. Types of asbestos found in Transnet premises

The following types of asbestos are found within Transnet operational area:

- Asbestos-containing material (ACM);
- Asbestos cladding on outside buildings, pipes, and roof sheeting
- Asbestos cement sheeting (can be found inside old coaches);
- Asbestos cladding inside buildings
- Asbestos blankets, buried stockpiles, and asbestos-contaminated railway sleepers and raw asbestos.

6.2. Classification of Waste




- Asbestos waste is classified as hazardous waste in terms of the National Environmental Management: Waste Act, 2008 (Act 59 of 2008): National Norms and Standards for disposal of waste to landfill dated 13 August 2013; and
- Disposal for asbestos waste is only allowed at a Class A landfill designed in accordance with Section 3 (1) and (2) of the Norms and Standards or subject to 3(4) of the Norms and Standards, at a landfill site designed in accordance with the requirements for Hh/HH landfill as specified by the Minimum Requirements for Waste Disposal by Landfill (2nd Ed, DWAF, 1998).

6.3. Identification of asbestos

6.3.1. Identification of asbestos on buildings

- Employees, contractors, visitors, or any other stakeholder may visually identify the following common types of asbestos in Transnet:



Blue Asbestos – Crocidolite	White Asbestos – Chrysotile	Brown Asbestos – Amosite
		

- These types of asbestos may be found buried on the ground, on land, or in parts of existing infrastructure used as asbestos cladding on outside buildings, asbestos cement sheeting, asbestos insulation blankets, pipe networks, roof sheeting, etc. as shown below:

Asbestos roof sheeting	Asbestos pipe	Asbestos on the ground
		

- An asbestos assessment shall be conducted to determine the presence of asbestos on the premises by AIA;
- Visual inspection of locations where asbestos-containing material is present or suspected must be conducted regularly to ensure that damaged or degraded material is properly managed;
- The Safety Manager/Specialist shall maintain written records of the inspections; and
- Damaged asbestos-containing material identified by employees and contractors during the course of their normal day-to-day activities shall be reported to the Safety Manager/Specialist who will ensure that appropriate remediation steps are taken.

6.3.2. Identification of asbestos on land

- Identifying the type and nature of the asbestos in the soil is critical to assessing the risk and forming appropriate control measurements and management plans;
- The history of the site in terms of the previous activities that were undertaken shall be considered;
- Desktop studies for contaminated land shall be conducted by a qualified Geo-Hydrologists;
- Initial site assessments for contaminated land must be undertaken to determine the presence of asbestos on-site;
- A preliminary risk assessment for contaminated land shall be undertaken; and

- Asbestos soil testing shall be conducted to confirm if asbestos is present in the soil, however, the sampling technique is critical, as asbestos in soil is not homogenous.

6.4. Asbestos inventory and contaminated land register

- The requirement for asbestos inventory and contaminated land register are requirements of both Asbestos Abatement Regulations and Part 8 of the Waste Act with differing requirements as dictated by each Act and Regulation.

6.4.1. Asbestos Inventory for asbestos on buildings

- A register of known and suspected locations of asbestos-containing materials shall be maintained as part of the Asbestos Management Plan as per Annexure 1 of the SOP;
- Transnet must obtain the services of a competent person to ensure that all materials identified as, or assumed to be, asbestos-containing material, are captured into an inventory of asbestos in place, which is kept at the workplace or premises;
- Where there is disagreement as to whether any substance is, in fact, asbestos, the health and safety representative, health and safety committee, or a person nominated by the employees may require that a sample of that substance be taken and definitive identification of the substance be determined by an Approved Inspection Authority; However, the cost of the identification will be borne by Transnet;
- The inventory of asbestos in place shall contain the prescribed information (i.e. the date on which the material was identified; a description of the material, quantity, and extent of deterioration, etc.);
- Transnet must ensure that a competent person reviews and, if necessary, revise the inventory of asbestos in place for the workplace at intervals not exceeding 24 months;
- However, the inventory of asbestos shall be revised frequently if further asbestos-containing material is identified and the asbestos-containing material has deteriorated significantly or is removed, damaged, sealed, coated, or encapsulated; and
- Where the removal of asbestos or repair of asbestos-containing material is planned, the information in the inventory of asbestos in place shall be adequately detailed with respect to the work to be carried out.
- Safety Manager/Specialist/Environment Manager/Specialist shall ensure that a copy of the inventory of asbestos in place, or relevant parts, is:
 - given to the mandatory before any asbestos removal or repair work commences;
 - given to the registered asbestos contractor and Approved Asbestos Inspector Authority before asbestos removal or repair work commences;
 - readily accessible to employees and health and safety representatives at the workplace; and
 - In the case of transfer of ownership, provided to the new owner of the premises.
- The responsible person who carries out the removal of asbestos or the repair of asbestos-containing material at a workplace shall:
 - obtain a copy of the inventory of asbestos in place from Safety Manager/Specialist or asbestos client; and
 - if suspected asbestos-containing materials are located on the structure, plant, or machinery, inform Safety Manager/Specialist, who will ensure that a competent person determines whether the substance in question is asbestos-containing material.

- In the event of work carried out at a workplace and potential exposure to airborne asbestos:
 - Transnet must ensure that the person authorising such work is given a copy of the inventory of asbestos in place;
 - the person authorising the work shall determine what future task and incident-related potential exposure scenarios are applicable to the work, including identifying recommended controls; and
 - Safety Manager/Specialist shall ensure that the recommended controls are implemented with regard to the work.
 - all asbestos-containing material listed in the inventory of asbestos in place, shall be clearly labelled or provided with a signage prescribed by the Regulations.

6.4.2. Contaminated land register

- All the ODs must keep a national contaminated land register of investigation and remediated areas as per **Annexure 2**, which includes information on:
 - the owners and any users of contaminated areas;
 - the location of contaminated areas;
 - the nature and origin of the contamination;
 - whether an investigation area:
 - ✓ is contaminated, presents a risk to health or the environment, and shall be remediated urgently;
 - ✓ is contaminated, presents a risk to health or the environment, and shall be remediated within a specific period;
 - ✓ is contaminated and does not present an immediate risk, but measures are required to address the monitoring and management of that risk; or
 - ✓ is not contaminated;
 - ✓ the status of any remediation activities on investigation areas; and
 - ✓ restrictions of use that have been imposed on investigation areas.
- This information shall be kept by the Environment Manager at all times and be reported to Corporate Sustainability in order to maintain and update the Transnet-wide asbestos register.
- The inventory of asbestos in place should be revised more frequently if:
 - Further asbestos-containing material is identified; and
 - The asbestos-containing material has significantly deteriorated, is removed from or damaged, sealed, coated, or encapsulated.
- Where contaminated material work is planned, the information in the inventory of asbestos shall be detailed concerning the work to be carried out.
- The Safety Manager/Specialists and Environment Manager/ Specialist shall ensure that a copy of the asbestos inventory or relevant part thereof, is:
 - Given to the mandatory before any asbestos removal or repair work commences;
 - Given to the registered asbestos contractor before asbestos removal or repair commences
 - Readily accessible to the employees and health and safety representatives at the workplace; and
 - In the case of transfer of ownership, information shall be provided to the new owner of the premises.

6.5. Notification of the authorities of asbestos presence and asbestos work

- All asbestos work to be undertaken shall comply with requirements of the Regulators and/or Authorities such as the Department of Employment and Labour (DEL) and Department of Forestry, Fisheries and Environment, (DFFE);
- Contractors undertaking such work shall be registered with DEL and certified to transport asbestos waste to the licensed waste treatment facility or hazardous landfill site where disposal has been chosen as an option; and
- The contaminated land process that must be followed within Transnet is as per Annexure 3 of this procedure.

6.5.1. Notification of asbestos to Department of Employment and Labour

- Before any asbestos work is undertaken within Transnet premises, the Safety Manager/Specialist shall ensure that a written and signed notification of the asbestos work is submitted to the Chief Director: Provincial Operations of Department of Employment and Labour within seven (7) working days before work commence.
- The written notification shall:
 - Include details of the Transnet site location, venue, and contact details of where asbestos working is taking place;
 - No type 2 and 3 asbestos work will take place within Transnet premises without notifying the Provincial Director in writing, at least within seven (days) before the commencement of the work;
 - In the event of an emergency, a shorter period is allowed to notify the Chief Director: Provincial Operations;
 - Notification to Department of Employment and Labour Chief Director: Provincial Operations shall be in the format provided in Annexure 4 of the Procedure;
 - Acknowledgment of receipt of notification shall be received from the Chief Director: Provincial Operations before any work can commence; and
 - Records of notification and acknowledgment from Department of Employment and Labour shall be kept within the official Transnet record management tools and/or system in line with **TIMS Document Data and Management Procedure (TRN-IMS-GRP-PROC 010)**.

6.5.2. Notification of Department of Forestry, Fisheries and Environment (DFFE)

- According to Section 36 (5) of the National Environmental Management: Waste Act 58 of 2008, an owner of land that is significantly contaminated, or a person who undertakes an activity that caused the land to be significantly contaminated, shall notify the Minister and MEC of that contamination as soon as that person becomes aware, of that contamination;
- The Environmental Manager/Specialists must notify the Department of Forestry, Fisheries and Environment, of asbestos contamination using the template attached here as **Annexure 5**; and
- The contaminated land process that shall be followed within Transnet is as per **Annexure 3** of this procedure.

6.6. Asbestos assessment

6.6.1. Asbestos risk assessment on buildings

- If asbestos is identified, then the Safety Manager/Specialist shall ensure that an asbestos risk assessment is carried out, as far as is reasonably practicable, immediately by a competent person and thereafter at intervals not exceeding 24 months.
- The Safety Manager/Specialist shall, before undertaking a asbestos risk assessment, consult with the relevant health and safety representative or relevant health and safety committee and inform them in writing of the arrangements made for the asbestos risk assessment, give them reasonable time to comment thereon, and ensure that the results of the asbestos risk assessment are made available to them for comment.
- The asbestos risk assessment shall, as an outcome, have a risk categorisation based on the potential for exposure to asbestos for each item of asbestos-containing material, which must be derived from the following:
 - the health impacts of asbestos;
 - the number of persons potentially exposed at the workplace;
 - the potential for damage or disturbance of asbestos-containing materials at the workplace, also by maintenance activities, potential incidents and normal occupant activities; and
 - the condition of asbestos-containing material, including state of deterioration.

6.6.2. Assessment of contaminated land

- A Qualified Practitioner shall be appointed by the Environment Manager/Specialist to undertake a preliminary risk assessment, initial investigations, and preliminary risk assessment in order to obtain a thorough understanding of the site history, setting, and potential impact of asbestos contamination;
- The risk assessment comprises desk study research, site reconnaissance, and the development of a conceptual site model. If the desk study indicates there is a potential for contamination, an intrusive site investigation and refined risk assessment will be required; and
- The investigation is to determine whether there are any unacceptable risks to people, property, or the environment.
- A preliminary site assessment shall cover the following:
 - site location in relation to location and size;
 - nature and extent of contamination, contaminants of concern, or historical activities that might be a source of contamination. List all the past and present activities at the site that involve the storage, production, use, treatment, or disposal of hazardous material that could contaminate the site;
 - describe the current condition of the site and the contents and results of any previous assessment reports;
 - local topography and geology, drainage surface cover, vegetation;
 - status of groundwater, approximate depth to water table;
 - proximity to surface water;
 - proximity to drinking water supply;

- annual rainfall and flood potential;
- land and water use for the site and nearby areas;
- any other requirements are as regulated by the Minister.
- A preliminary Site Assessment Report must make clear statements with respect to the status of contamination of the site and satisfy the following requirements of the Waste Act (2008):
- State whether the area should be investigated further or remediated immediately or whether any other measures should be taken to manage or neutralise the risk;
- Alternatively, if all the information available in conformance with the checklist for Phase 1 reporting leads to the conclusion that the site poses no risk to human health or the environment; and
- Transnet shall motivate in writing that the site is not a contaminated site and obtain approval and confirmation on the contaminated status of the site from the DFFE; and
- The Site Assessment Report (SAR) investigations shall include the sampling and analysis of soil, sediment, groundwater, and surface water.
- The Site Assessment reporting shall give information on:
 - the type, extent, and level of contamination anticipated on-site and the issues raised in previous reports;
 - the nature of samples collected, the sampling procedures followed, including field sampling quality assurance and quality control requirements;
 - the analyses undertaken, methodologies used and laboratory quality assurance/quality control procedures, including laboratory certificates and appropriate accreditation listed;
 - the actual extent and concentrations of contaminants in all appropriate environmental media on-site based on verified test data;
 - any likely dispersal in air, surface water, groundwater, soil, and dust from the detected contaminants;
 - any potential effects of contaminants on human health, the environment, or building structures and property.
- A Site Assessment Report shall list the results of chemical analyses of soils obtained against the Soil Screening Values and clearly demonstrate that the selection of guideline values is consistent with the principles of the Framework, together with all assumptions and limitations of Soil Screening Values used.
- The report shall make a clear statement regarding the adequacy and completeness of all information used in the assessment and list any further studies or investigations that may be required to verify the status of the site and the risks posed.
- The findings of the report shall satisfy the requirements of Section 37 of the Waste Act (2008) as well as any other regulations in terms of Site Assessment Report, determine, and state whether the following triggering clauses have been breached.
- Where the findings of the site assessment report are that the investigation area is contaminated, the site assessment report shall at least contain information on whether:
 - the contamination has impacted on the environment;
 - the substances present in or on the land are toxic, persistent or bio-accumulative or are in large quantities or high concentrations or occur in combinations;
 - there are exposure pathways available to the substances;
 - the uses of the land and land adjoining increases or is likely to increase the risk to health or the environment;
 - the substances have migrated or are likely to migrate from the land; and



- the acceptable exposure for human and environmental receptors in that environment has been exceeded, any applicable standards have been exceeded and the area should be remediated or any other measures should be taken to manage or neutralise the risk.
- Report on recommendations shall be compiled to inform the regulatory status of contamination including:
 - the investigation area is contaminated, presents a risk to health or the environment, and must be remediated urgently;
 - the investigation area is contaminated, presents a risk to health or the environment and must be remediated within a specified period;
 - the investigation area is contaminated and does not present an immediate risk, but that;
 - measures are required to address the monitoring and management of that risk; and
 - or the investigation area is not contaminated.
- Alternatively, if all the information available in conformance with the checklist for Phase 2 Reporting and Soil Screening Values arrived at by either comparison with the Soil Screening Values, or contaminant concentrations calculated based on site-specific acceptable risk, leads to the conclusion that the site poses no risk to human health or the environment; and
- Transnet shall motivate in writing that the site is not contaminated and obtain approval and confirmation on the contaminated status of the site from the DFFE.

6.7. Contaminated land management plans

6.7.1. Asbestos management plan

- If asbestos-containing materials are identified, Safety Manager/Specialist shall ensure that a written Asbestos Management Plan for the workplace is prepared by a competent person.
- The asbestos management plan shall include at least the following-
 - a procedure that contains measures related to:
 - the repair, removal, and management of asbestos-containing materials;
 - the implementation of the Regulations for Prohibition of the Use, Manufacturing, Import and Export of Asbestos and Asbestos-containing materials, 341 of 2008; and
 - where asbestos-containing material has been identified in the inventory of asbestos in place a specific procedure which will, as far as is reasonably practicable, reduce the risk of exposure of employees as well as incidental asbestos exposure for the following scenarios:
 - ✓ incidents;
 - ✓ emergencies
 - ✓ removal work; and
 - ✓ repair work.
- A policy procedure and implementation plan for phasing out existing asbestos-containing materials at the workplace which, considers the following:
 - the principle of reasonably practicable; and
- Safety Manager/Specialist and Environment Manager/Specialist shall review, and if necessary, revise the asbestos management plan at intervals not exceeding eight years or if any information is contemplated in the plan.

6.7.2. Contaminated Site Remediation Plans

- The Environmental Manager/Specialist shall establish the final soil remediation objective for site clean-up taking into consideration technical feasibility, and overall risk management strategies throughout the remediation process and not simply at the end of the remediation process. All risk-based management decisions shall be fully documented and justified.
- The site remediation plan shall be prepared as follows:
 - setting remediation or management objectives (including numerical soil and groundwater targets);
 - ensure the site will be suitable for its current or future proposed land-use and will pose no unacceptable risk to human health or the environment, either on-site or off-site;
 - document in detail all procedures to be adopted to achieve the remediation objective;
 - establish safeguards and contingency measures for safe implementation of all remediation activities;
 - develop a quality assurance monitoring plan that establishes a record of activities that must be carried out to ensure compliance with the approved action plan; and
 - obtain the relevant approvals, permits, or licenses required by regulatory authorities (DFFE) to undertake the proposed remediation activities in terms of Section 20(b) of the Waste Act (2008).
- For large projects with complex remediation activities, a detailed Remediation Plan shall be submitted by the Environment Manager/Specialists as a stand-alone document with a dedicated Operational Controls and Monitoring Plan. The reporting to include the following:
 - remediation objectives (including numerical soil and groundwater targets where relevant)
 - Discussion of the remedial options available, assessment of alternatives including the status quo, identifying the means of risk reduction proposed in each option;
 - rationale for selection of the recommended remedial option;
 - discussion of the remediation required to achieve the remedial objectives
 - risk assessment of proposed remediation activities and mitigatory measures required to minimize environmental hazards and impacts during remediation;
 - identification of regulatory requirements such as permits, licenses, and approvals
 - proposed monitoring and testing to validate the site during, and on completion of the remedial activities;
 - contingency plan if the remedial strategy fails to reach the remediation objectives; and
 - remediation plans require approval under Section 20(b) of the Waste Act (2008) before any activities other than emergency activities can be instigated.

6.8. Information, instruction and training

- The Safety Manager/Specialist and Environmental Manager/Specialist shall:
 - provide, to persons who may have incidental asbestos exposure, information, instruction through induction training upon employment and when the inventory of asbestos is reviewed; and
 - ensure that the information, instruction, and training content complies with the requirements of the Asbestos Abatement Regulations of 2020.
- Where Transnet undertakes non-asbestos related work, where there is a potential for asbestos exposure, Safety Manager/Specialist shall ensure that the employees are adequately

and comprehensively informed, instructed, and trained both in practical and theoretical knowledge concerning potential health-related risks associated with asbestos exposure.

- For the removal of asbestos or repair of asbestos-containing materials, Safety Manager/Specialist and Environment Manager/Specialist shall ensure that all supervisors and employees are adequately and comprehensively informed, instructed, and trained with regard to amongst others, safe disposal of asbestos waste.
- Training shall:
 - be provided by a person deemed competent by the Chief Inspector of the Department of Employment and Labour;
 - have a minimum contact duration of eight hours; and
 - as an outcome, provide employees with asbestos training certificates.
- Refresher training with a minimum contact duration of two hours shall be provided at least annually or more / intervals following the requirements of the Regulations.
- The Safety Manager/Specialist must ensure that up-to-date records of employee training are made available at the workplace that has asbestos. The Safety Manager/Specialist shall ensure that current employee's asbestos training certificates are provided to employees upon termination of employment.

6.9. Air monitoring

- The Safety Manager/Specialist shall ensure that asbestos air quality monitoring is undertaken across all areas where there is high risk of asbestos exposure or the asbestos contractor undertakes asbestos work.
- This monitoring shall be conducted in line with legislative requirements. The following requirements shall be adhered to:
 - in the case of type 2 and type 3 asbestos work, an asbestos client shall ensure that air monitoring of the concentration of airborne regulated fibres to which an employee may be exposed, is:
 - ✓ performed by an approved inspection authority;
 - ✓ carried out in terms of HSG 248;
 - ✓ representative of employee exposure; and
 - ✓ carried out at a frequency determined by the approved inspection authority based on the site-specific asbestos risk assessment.
- The results of air monitoring obtained must be compared with the OEL or the OEL short-term exposure limit to ensure that no employee is exposed to asbestos in excess of the prescribed OELs.
- An approved inspection authority shall perform environmental air monitoring during type 2 and type 3 asbestos work.
- Air monitoring referred to in sub regulations (1) and (3) of the Asbestos Abatement Regulations of 2020, shall be carried out only after the relevant health and safety representative or relevant health and safety committee has been consulted and given a reasonable opportunity, as mutually agreed, to comment thereon.

6.10. Medical Surveillance

- The Safety Manager/Specialist and Occupational Manager/Nurse shall establish and maintain a system of medical surveillance of employees if:

- the employer is registered as an asbestos contractor;
- in the opinion of an occupational medicine practitioner, after consideration of the results of the asbestos risk assessment carried out in terms of regulation 5(5)(d) of the Asbestos Abatement Regulations of 2020, it is reasonably likely that an asbestos-related disease may occur under the particular conditions of an employee's work; or
- an occupational medicine practitioner recommends that the relevant employee should be under medical surveillance.
- The Safety Manager/Specialist shall appoint an occupational medicine practitioner to document the system of medical surveillance of employees, including:
 - consideration of:
 - ✓ the risk of developing occupational asbestos-related diseases; and
 - ✓ medical fitness to work requirements, including fitness to wearing a respirator.
- An initial health evaluation before commencement of asbestos work, which comprises:
 - an evaluation of the employee's medical, occupational, exposure and social history;
 - an appropriate physical examination;
 - a chest radiograph; and
 - any other additional medical examination, such as pulmonary function testing, which, in the opinion of the occupational medicine practitioner, is necessary to enable such practitioner to perform an appropriate health evaluation.
- Periodic health evaluations conducted, considering medical tests;
- The duties of an occupational health practitioner, conducted under the direction of the appointed occupational medicine practitioner; and
- Making the documented system of medical surveillance available to the health and safety representative or health and safety committee, who is entitled to further clarification, if they so request.
- The appointed occupational medicine practitioner must notify the Safety Manager/Specialists/ Occupational Manager in writing of the outcomes of the health evaluation by issuing the certificate of medical surveillance, subject to the following:
 - the information provided to the employer is limited to the presence of an occupational disease and the fitness of the employee to perform the inherent requirements of the job, and may not include confidential medical information;
 - the employee is informed of the outcome of the health evaluation; and
 - an employee is assessed to be temporarily medically unfit to perform work if there is a reasonable expectation that the employee's health will improve, and that such employee will be able to return to work.
- The Occupational Manager/Specialist may not permit an employee who was certified by an occupational medicine practitioner as medically unfit to work in a regulated asbestos area, provided that the employee may return to perform that work after being certified fit by an occupational medical practitioner, and after:
 - being informed of the results of the exposure assessments; and
 - being prescribed medical tests in the frequency they should be repeated based on the risks.
- The certificate of medical surveillance:
 - shall be provided by the Occupational Manager/Specialist to the employee upon termination of employment; and
 - may be used for subsequent asbestos work for the full duration of its validity period.

- the Occupational Manager/Specialist shall record, investigate and report the occupational disease; and
- the Occupational Manager/Specialist shall ensure that the employee provides written informed consent for inclusion in the medical surveillance programme, which forms part of the medical surveillance record.

6.11. Regulated asbestos area

- The Safety Manager/Specialist when undertaking type 1, type 2 or type 3 asbestos work shall:
 - clearly demarcate and identify the relevant area as a regulated asbestos area; and
 - ensure that no person enters or remains in a regulated asbestos area unless he or she wears the appropriate type and correctly fitting respiratory protective equipment and protective clothing.

6.12. Personal protective equipment and facilities

- The Safety Manager/Specialist shall:
 - provide respiratory protective equipment and protective clothing suitable for protection against regulated asbestos fibres to all persons who may be exposed to asbestos;
 - ensure that the respiratory protective equipment provides the appropriate level of protection for the type of asbestos work to be undertaken; and
 - ensure that a person's exposure is adequately controlled.
- Where respiratory protective equipment is provided, the employer or self-employed person shall ensure that:
 - the relevant equipment is capable of keeping the exposure level below the OEL for asbestos;
 - the relevant equipment is correctly and properly used, stored and maintained;
 - information, instruction, training and supervision that are necessary with regard to the use of the equipment are provided to the persons; and
 - the equipment is kept in good condition and efficient working order.
- Safety Manager/Specialist shall, as far as is reasonably practicable:
 - issue no personal protective equipment to a person unless such equipment is cleaned, decontaminated and, where appropriate, sterilised;
 - provide separate containers or storage facilities for personal protective equipment not in use; and
 - ensure that all personal protective equipment not in use is stored only in the place provided.
- Safety Manager/Specialist shall, as far as is reasonably practicable, ensure that all personal protective equipment contaminated with asbestos dust is thoroughly cleaned and handled in accordance with the following procedures:
 - where personal protective equipment is cleaned on the premises of the asbestos client, care must be taken to prevent contamination during handling, transport and cleaning; and
 - water that is used for decontamination or cleaning of equipment must be filtered before being released into any water system.

- Safety Manager/Specialist shall ensure that no person removes dirty or contaminated personal protective equipment from the workplace, provided that where personal protective equipment contaminated with asbestos dust has to be disposed of, it must be treated as asbestos waste.
- The Safety Manager/Specialist shall:
 - provide employees involved in type 1 and type 2 asbestos work with adequate washing facilities, which are readily accessible and located in an area where the facilities will not become contaminated, to enable employees to meet a standard of personal hygiene consistent with the adequate control of exposure, and to avoid the spread of asbestos dust;
 - provide employees involved in type 3 asbestos work with a decontamination facility, which facility is readily accessible and located in an area where it will not become contaminated to enable employees to meet a standard of personal hygiene consistent with the adequate control of exposure, and to avoid the spread of asbestos dust.

6.13. Removal and remediation of Asbestos

6.13.1. Removal of asbestos on buildings and equipment

- Where old equipment with asbestos insulation is received for scraping/disposal at the Transnet operations, the asbestos material shall be clearly marked, set aside, and removed by asbestos contractor.
- All products containing asbestos material shall be treated in a similar manner;
- Where old equipment and assets containing asbestos are sold for recycling, an inspection shall take place to assess if there is asbestos material;
- A Transnet appointed contractor shall not undertake any work on asbestos-contaminated site unless they hold an appropriate license and approval from a competent authority;
- Registered asbestos contractor shall take the necessary measures to reduce the exposure to asbestos of his employees, Transnet employees, and another person that may be exposed to the lowest level reasonably practicable by measures other than the use of suitable respiratory protection and disposal /personal protective equipment (PPE);
- Registered asbestos contractor shall design and use appropriate work processes, systems and engineering controls and provide suitable work equipment and materials in order to avoid and/or minimize the release of asbestos;
- An AIA shall be appointed by the Safety Manager/Specialist to assess/monitor airborne asbestos fibres from the work area;
- Asbestos contaminated land shall be clearly demarcated and identified by notices indicating:
 - that the area is asbestos-contaminated; and
 - A specific/appropriate protective equipment must be worn at all times.
- Registered asbestos contractor shall not permit any employee, other than an employee who because of his work is required to be in an area designated as an asbestos-contaminated area, to enter or remain in any such area and only employees who are so permitted shall enter or remain in any such area;
- No asbestos containing material shall be sold or reused without being treated to remove asbestos contaminants.
- No person shall use compressed air to remove asbestos dust from any surface or person; and
- The Safety Manager/Specialist and registered asbestos contractors shall ensure that:

- no employees or visitors will eat, drink or smoke in an area designated as an asbestos-contaminated area;
- arrangements are made for such employees and visitors to eat, smoke or drink in an alternative safe place;
- arrangements to be made for appropriate wash and shower facility with proper drainage and catchment of used water; and
- to follow the AIA work plan and all other applicable legislation regarding asbestos work.

6.13.2. Remediation of asbestos on contaminated land

- Sites contaminated with asbestos shall be identified and demarcated accordingly. The sites d be clearly marked by erecting proper signage indicating the hazardous nature of the site as per Asbestos Regulations;
- These identified asbestos-contaminated sites shall be registered with Transnet Environment Manager/Specialist and Safety Manager/ Safety Manager/Specialist and Environment Manager/Specialist for management and control;
- Should there be a need to dig up the site for any purpose, the Environment Manager/Specialist and Safety Manager/Specialist should immediately be informed for guidance;
- Periodic monitoring/air monitoring shall be conducted by the Environment Manager/Specialist and AIA on these sites to ensure that there are no airborne asbestos fibres that may affect employees and the public at large as per Asbestos Regulations: AR8 register;
- **The Occurrence and Non-conformance Management Procedure (TRN-IMS-GRP-PROC 013)** shall be activated;
- A procurement process must be activated by the Environment Manager/Specialist for a service provider to be procured to manage the discovered asbestos;
- The asbestos shall be safely disposed of at a hazardous landfill site or remediated depending on the remediation option chosen and approved by DFFE; and
- A copy of the disposal certificate shall be kept by the Environment Manager/Specialist as a record of safe disposal at a landfill site, should disposal be the preferred option.

6.14. Undertaking of asbestos work by registered asbestos contractor

- All asbestos work to be undertaken shall comply with requirements of the DoEL and DFFE.
- Contractors undertaking such work shall be registered with DoEL and certified to transport asbestos waste to the licensed landfill site if the type of asbestos remediation/work requires or involves the disposal of asbestos.
- The appointment of the registered asbestos contractor shall be in line with the requirements of the **Contractor Management Procedure (TRN-IMS-GRP-PROC 014)**.

6.14.1. Registered Asbestos Contractor work and other requirements

- Where the registered asbestos contractor maintains, renovates, dismantles asbestos-cement roof sheeting, wall paneling, gutters, fascia boards, and related products to a building and or removed asbestos contamination from land on behalf of Transnet, registered asbestos contractor, shall ensure that:
 - all legislative requirements and applicable timeframes for submission of the DoEL documents are met;

- a plan of work is developed, reviewed, and approved by AIA and submitted to DoEL before work is undertaken;
- suitable roof ladders or duckboards or crawling boards are used in accordance with regulation 12 of the General Safety Regulations;
- written work procedures are laid down and followed to prevent the release of asbestos dust into the environment;
- that the work procedures referred above must be made available for perusal by Transnet Personnel responsible for compliance as well as any Transnet member of the Safety Committee and authorities;
- that asbestos waste of any form, is collected and disposed of in accordance with the applicable legislation;
- that where reasonably practicable and required by law, the relevant items are painted or otherwise sealed with a protective coating to limit the release of asbestos dust, combat weathering, and inhibit growth of lichen or moss;
- any cleaning is done under controlled conditions ensuring that:
 - ✓ dry-brushing, scraping, sanding or abrasion techniques are not used;
 - ✓ where feasible, high-pressure water jetting is not used unless in conjunction with a suitable profiled hood that limits dispersal of contaminated water and, if the said jetting is used, that suitable control methods are used; and
 - ✓ when a fungicidal solution or moss killer is applied, a standing time of 24 hours or any other period specified by the manufacturer is allowed, and a low-pressure hose is used after such period to keep the sheets wet whilst employing a stiff broom or any similar means to remove any moss or lichens.
- all relevant asbestos signage and cordoning of the contaminated area is done to prevent and caution any stakeholder closer to where asbestos work is undertaken;
- a site-specific risk assessment shall be conducted and the Health and Safety Plan be developed and approved by the Safety Manager/Specialist and Environment Manager/Specialist and the AIA.
- a base camp and decontamination facility shall be established in compliance with all legal requirements;
- clean-up of asbestos contamination material shall be done in consultation with Safety Manager/Specialist and Environment Manager/Specialist; and
- all asbestos contaminated soils and other asbestos waste shall be managed appropriately, labeled, and disposed of as per Asbestos Abatement Regulations and the NEM: Waste Management Act.
- the waste shall include all consumables used on site e.g. PPE, vacuum bags, etc.

6.15. Emergency Procedure

6.15.1. Unexpected Discovery of Potential Asbestos-Containing Material

- In the event that potentially asbestos-containing material is discovered in an unexpected area, the Safety Manager/Specialist or Environment Manager/Specialist must be informed; and
- The Safety Manager/Specialist or Environment Manager/Specialist will initiate an inspection of the area to determine if the material does contain asbestos and if so, cordon off the area,

ensure the location is added to the inventory of asbestos-containing materials, and initiate remediation work as required.

6.15.2. Unintentional Disturbance of Asbestos-containing Material

- In the event that material believed to contain asbestos is unintentionally disturbed, the procedure detailed below shall be followed:
 - the Safety Manager/Specialist or Environment Manager/Specialist shall immediately stop all work activity in the area to avoid further disturbance of the material;
 - the employee shall notify his or her supervisor and the Maintenance Control Centre of the incident;
 - the Infrastructure and/or Real Estate/Property Departments shall shut down the ventilation system in the area in case where contamination is found on the building; and
 - the Safety Manager/Specialist and Environment Manager/Specialist shall undertake an incident investigation to determine the root cause of the disturbance and what corrective action must be initiated to prevent reoccurrence.
- The employees/contractor shall ensure that any clothing and/or tools contaminated with asbestos fibers are decontaminated via dampening wiping or vacuum cleaning equipment with a filtration efficiency of at least 99 per cent for particles one micrometre in size before leaving the area.

6.15.3. Emergency preparedness and response to asbestos exposure

- All Transnet operations shall display up to date list of all numbers and names shall be posted at visible locations at each depot or business; and
- The nearest emergency service provider shall be identified as well as its capacity and the magnitude of accidents it will be able to handle. The contact details of the following, but not limited to these emergency centres shall be kept up to date and be available at prominent locations:
 - Approved Inspection Authority (AIA);
 - Department of Forestry, Fisheries and Environment (DFFE);
 - Department of Employment and Labour; and
 - Department of Water and Sanitation (DWS).

6.15.4. Transportation and accidental spillage of Asbestos Waste Material

- The transportation of any asbestos waste material shall be outsourced to registered asbestos contractor;
- The transportation of asbestos off-site shall comply with SANS 10229-1:2010 standards set out in the Code of Practice for packaging of dangerous goods for Road and Rail transportation of South Africa;
- Tightly sealed containers shall be used during transportation to prevent asbestos spillages on public roads;
- Asbestos waste shall be disposed of at the landfill sites specifically approved for asbestos waste (hazardous landfill site) in terms of the National Environmental Management: Waste Act, 1998 (Act No. 59 of 2008), National Norms and Standards for disposal of waste to landfill 2013, should disposal be the preferred method of rehabilitation and remediation;

- All employees who are involved in the transportation and dumping of asbestos waste shall be provided with required respiratory protection and protective clothing and be properly trained in the procedure to be followed in the event of spillage or similar emergency or situation that could arise by accident;
- All premises and plant shall be cleaned as per regulation 19 and 21 of the Asbestos Abatement Regulations, 2020. This also includes vehicles and protective clothing;
- All incidental spillages of asbestos waste shall be cleaned up immediately. The driver of the vehicle carrying asbestos waste shall have the necessary training and be conversant with the instructions to handle such cases;
- Drivers of these vehicles shall also be in possession of Transport Emergency Control cards (TREM), which describes the handling of specific commodity transported.
- All other asbestos-containing waste shall be collected and stored in a dedicated enclosed and lockable/ secure area. The need to handle or move such items must be kept at a minimum;
- To prevent pollution, asbestos fragments remaining on-site or in scrap heaps shall be dampened with an environmentally friendly bonding agent/wetted before being transported for disposal;
- All asbestos that is removed shall be double contained and then disposed of into appropriate receptacles and be taken off-site for safe disposal; and
- Fragmented asbestos shall be contained to ensure that there is no risk of exposure to Transnet employees, the public, and service provider employees.

6.16. Labelling and signage

- All asbestos in place listed in the inventory of asbestos shall be clearly and legibly identified using the pictogram as specified in the Asbestos Abatement Regulations by the Safety Manager/Specialist or Environment Manager/Specialist.
- All Transnet premises where asbestos has been identified, assessed, and confirmed to be of high risk shall have approved asbestos signage erected.
- The signage to be erected on an asbestos site shall be in line with Transnet Corporate Identity Guidelines and must be approved by the Corporate Affairs Department.
- The installed signage shall also meet the Department of Employment and Labour branding requirements for erecting asbestos signage.
- All installed asbestos signage shall be registered in the Transnet asset register for each OD or Specialist Unit it belongs.

Example of signage to be installed:

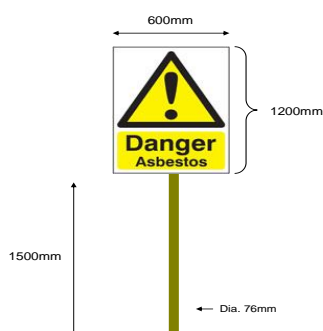
- Example 1: Signage Board



NB: Length of all poles must be 2 200 mm long (i.e. 1 500mm above the ground + 800mm underground)

- Example 2: Lollipop Design

Lollipop Asbestos Sign



NB: Length of all poles must be 2 200 mm long (i.e. 1 500mm above the ground + 800mm underground)

6.17. Disposal of asbestos

Transnet and its contractors shall as far as is reasonably practicable ensure that:

- all asbestos waste is placed in containers that will prevent the likelihood of exposure during handling;
- all vehicles, re-usable containers, or any other similar articles which have been in contact with asbestos waste are cleaned and decontaminated after use, in such a way that such vehicles,

containers, or similar articles do not cause a hazard inside or outside the workplace concerned;

- all asbestos waste which can cause exposure, is disposed of only on sites specifically designated for this purpose in terms of the National Environmental Management Act, 1998 (Act No. 107 of 1998) National Norms and Standards for Disposal of Waste to Landfill 2013, and in such a manner that it does not cause a hazard inside or outside the site concerned;
- all persons involved in the collection, transport, and disposal of asbestos waste, who may be exposed to that waste, are provided with suitable personal protective equipment;
- where the services of a contractor for the disposal of asbestos waste are used, a provision is incorporated into the contract stating that the contractor shall also comply with the provisions of these Regulations; and
- Safe disposal certificates shall be submitted to Transnet ODs Safety and Environment Departments and be kept on record as per the records procedure (TIMS 010).

6.18. Completion of asbestos work

6.18.1. Site clearance certificate for asbestos on buildings

- Following the completion of type 2 or type 3 asbestos work, an approved inspection authority must:
 - conduct a thorough visual inspection of the relevant work area;
 - conduct air sampling to ensure compliance with the clearance indicator;
 - ensure that all asbestos waste has been removed in accordance with the requirements of regulation 21; and
 - issue a written declaration for the purpose of clearance certification.

6.18.2. Monitoring and closure of asbestos remediated sites

- The Environment Manager/Specialist shall appoint a Qualified Practitioner who must ensure that ongoing management and monitoring of the remediation site is carried out until the site is fully remediated to the satisfaction of the authorities.
- A Monitoring report shall be compiled by a Qualified Practitioner and submitted to DFFE to obtain a closure letter.
- The Minister will issue a closure letter to the landowner to declare that the remediation objectives have been achieved and the site may be used for the intended purpose as indicated in the remediation plan.

6.19. Record Keeping

- All records shall be kept by the contracting department in line with **TIMS Document, Data and Records Management Procedure (010)**;
- Transnet shall also:
 - keep records of all inventories of asbestos in place, asbestos risk assessments, air monitoring results, medical surveillance reports, disposal certificates and clearance certificates as required by regulations 4, 5, 16, 17, 21(d) and 22(d) of the Asbestos Abatement Regulations 2020, respectively: Provided that personal medical records may be made available to only an occupational health practitioner;



- subject to sub-regulation (c) of the Asbestos Abatement Regulations 2020, make the records contemplated in sub-regulation (a), excluding personal medical records, available for inspection by an inspector;
- allow any person, subject to formal written consent by an employee, to peruse the records with respect to that particular employee;
- Make the records of all assessments, surveys and air monitoring results, and the asbestos inventory, available for perusal
- Keep all records contemplated in sub-regulation (a) of the Asbestos Abatement Regulations 2020 for a minimum period of 50 years;
- Hand over or forward by registered post all records contemplated in sub-regulation (a) to the relevant Chief Director: Provincial Operations, if the employer ceases activities relating to asbestos work;
- Keep a record of training given to an employee in terms of regulation 7 of the Asbestos Abatement Regulations 2020, for as long as the employee remains employed at the workplace where the employee is potentially exposed to asbestos.

6.20. Prohibition

- No Transnet employee or contractor shall:
 - sell, donate, reuse, reinstall or recycle any asbestos or asbestos - containing materials;
 - clean or prepare surfaces of asbestos cement materials;
 - temporarily store any asbestos or asbestos -containing materials for longer than three months after completion of asbestos removal work, before final disposal;
 - temporarily store asbestos -containing materials destined for disposal, which are uncovered or unprotected or stored in a manner that may contaminate ground or water systems or may cause the release of asbestos dust;
 - use compressed air or permit the use of compressed air to remove asbestos dust from any surface or person;
 - use electrical power tools, such as angle grinders, or any other fast - moving equipment to cut, grind or drill asbestos -containing material;
 - smoke, eat, drink or keep food or beverages in a regulated asbestos area or require or permit any other person to smoke, eat, drink or keep food or beverages in such area;
 - vacuum asbestos dust using vacuum cleaning equipment other than vacuum cleaning equipment with a filtration efficiency of at least 99 per cent for particles one micrometre in size; or
 - carry out any demolition work before all asbestos and asbestos containing building material has been identified in the inventory of asbestos in place, safely removed or otherwise controlled, as far as is reasonably practicable, so as to eliminate the uncontrolled release of asbestos and asbestos dust.

6.21. Internal and External Reporting

- Progress on asbestos removal within Transnet operations shall be tracked and reported at the RISKCO and Environmental Forum;
- Each OD is required to designate a representative at the Forum and Committee who shall report on behalf of the OD; and

- The GM: Sustainability shall report progress of asbestos rehabilitated sites at the Group Risk Management Committee, Executive Committee, and the authorities while EM: Safety will report progress of asbestos removal from buildings.

7. Review of the Asbestos Procedure

- The Asbestos Standard Operating Procedure shall be reviewed regularly and updated to reflect regulatory or best practice changes. As a minimum, the SOP shall be reviewed every five (5) years.

8. ANNEXURES

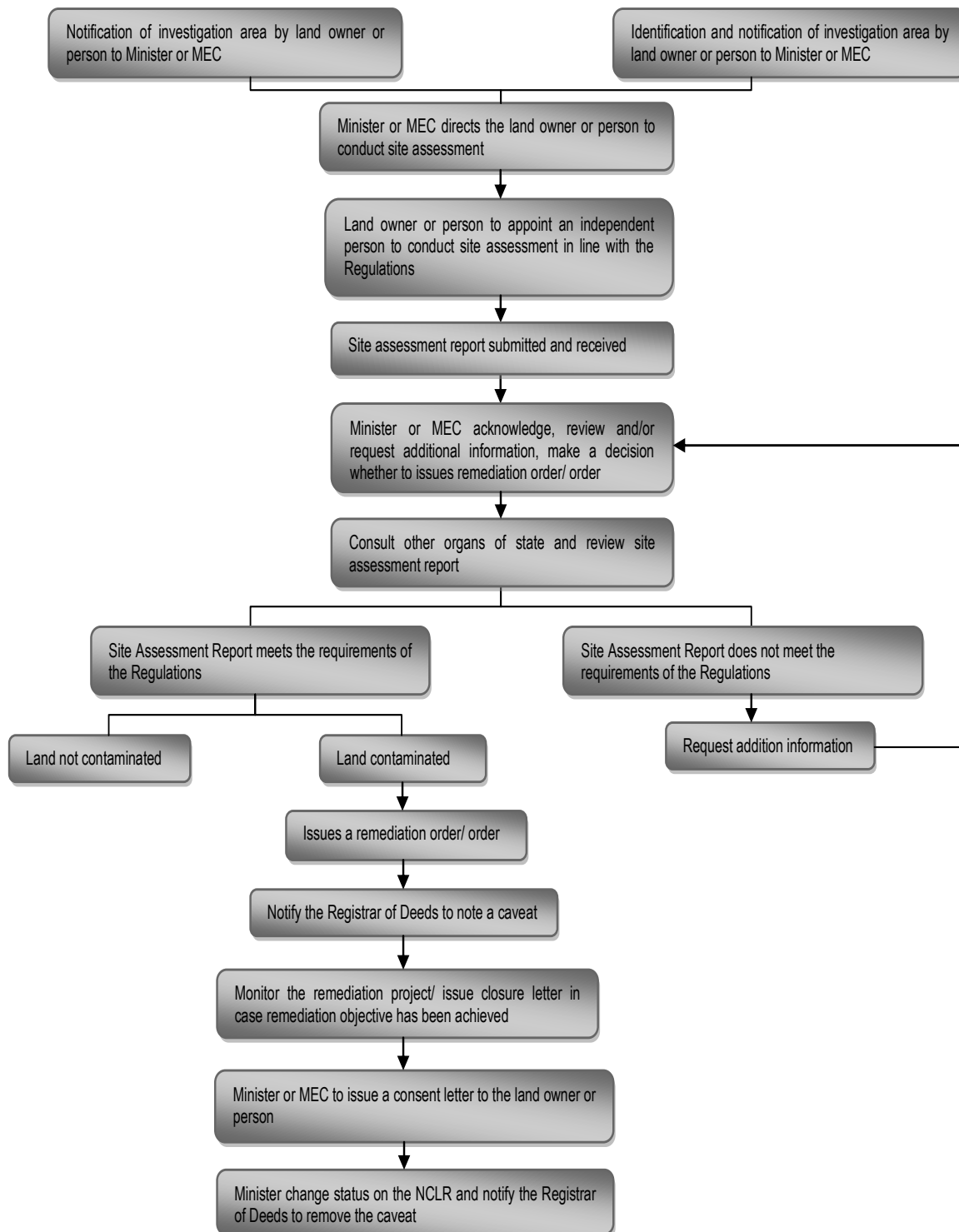
8.1. Annexure 1. Asbestos Inventory

No	Location / Station	Asset No	S/M storey	No stories	Const. area m ²	In use	Floor m ² Asbestos Roof	Ceiling m ²	Facias / Barge boards m ²	Walls / Cladding m ²	Partitioning m ²	Gutters / Downpipes m	Water / Sewer pipes m	Water tanks m ³	Building damaged	Asbestos intact

8.2. Annexure 2: Contaminated Land Register

[illegible]

8.3. Annexure 3: Contaminated Land Process Flow



8.4. Annexure 4: Notification for Asbestos Work

NOTIFICATION OF ASBESTOS WORK

Occupational Health and Safety Act, 1993 (Act No. 85 of 1993) (Regulation 10 of the Asbestos Abatement Regulations, 2020) 1 (a) Name and registration number of the registered asbestos contractor**:

(b) Physical address of the registered asbestos contractor:

(c) Name and phone number of the contact person of the registered asbestos contractor:

2.

(a) Name of asbestos client: _____

(b) Name and phone number of the contact person of the asbestos client:

3.

(a) Name of approved asbestos inspection authority (AIA)** and its Department of Employment and Labour AIA registration number: _____

(b) Name and phone number of the contact person of the approved inspection authority:

4. Exact location/address of where the asbestos work will be done: _____

GPS coordinates S _____ E _____

5. Type and volume of asbestos to be removed/repaired (as applicable):

6. Expected commencement date: _____

7. Expected completion date: _____

Registered Asbestos Contractor** Date _____

Asbestos Client Date

The completed document must be sent to the Chief Director: Provincial Operations of the Province where asbestos work is to take place, seven days prior to commencement of asbestos work.

** Not applicable in the case of type 1 asbestos work.

8.5. Annexure 5: Notification of contaminated land



Notification of contaminated land

The following information should be supplied to the Minister or MEC by the owner of the contaminated land, or person who undertakes the activity that caused contamination of land:

- Information required should be typed in the space provided
- Name and Signature of delegated person
- The following should be attached:
 - (i) Current site plan - with scale bar showing north direction, local water drainage and other locally significant features on-site and immediate off-site. The plan should also show the historical location of structures that may have affected the distribution of contamination (e.g. building, underground storage tanks, treatment baths, etc.);
 - (ii) Locality map

1. Details of the Land owner			
Name/ Company:			
Identity number/ Company Reg.:			
Physical Address:			
Postal code:			
Tel:		Fax:	
2. Details of the Land user			
Name of contact person:			
Company name:			
Registration number:			
Physical address:			
Postal code:			
Tel:		Cell:	
Fax:		Email:	
3. Details of the site			
Site Physical Address:			
Erf number:			

Province:			
District Municipality			
Local Municipality			
Four (4) or more corner coordinates of the portion of land that is contaminated (in degrees, minutes and seconds)			
Size of the area contaminated			
4. Details of the Site Assessment Practitioner			
Name and Surname			
Company name			
Physical Address			
		Code	
Postal Address			
		Code	
Telephone/Cell		Fax	
Email Address			
5. Is there any Environmental Compliance Monitoring or Enforcement action against you on that site?			
If yes, provide details (reference number & contact details amongst others) below:			
If no, proceed to Section 6			
6. Department of Water and Sanitation: Water Management Area/ Quaternary Drainage			
Responsible Officer (DWS)			
Physical Address			
		Code	
Postal Address			
		Code	
Telephone			
Email Address			

7. Description of the Nature of contamination

I declare that the information contained in this form is true

Name of responsible person

Signature of responsible person

Designation

Date

Submission of this form should be directed to:

The Director: Land Remediation-Dr Mpho Tshitangoni
Environment House, 473 Steve Biko Road, Arcadia, Pretoria, 0083
Private Bag X447, Pretoria, 0001