



TRANSNET NATIONAL PORTS AUTHORITY

ASBESTOS MANAGEMENT PLAN



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GLOSSARY OF TERMS:

Asbestos: Chrysotile, Amosite, Crocidolite

AAIA: Approved Asbestos Inspection Authority – Approved by the Department of Labour.

ACW: Asbestos Containing Waste

AMP: Asbestos Management Plan.

Capped: A site will be deemed capped if appropriately covered in one or a combination of the following ground coverings: Crusher-run, Premix, Rail Ballast, Geosynthetic fabric in combination with clean soil and vegetation, Pavers, concrete and Tiles. The Capping material must be of an appropriate thickness (to be advised on merit) and prevent the erosion of soil.

Clean Soil: Non-asbestos contaminated soil.

Contaminated Soil: Asbestos contaminated or suspected asbestos contaminated soil.

Contaminated Site: TNPA site identified as containing asbestos contaminated soil.

DoL: Department of Labour.

DWAF: Department of Water Affairs and Forestry.


Environmental Covenant: An environmental covenant is an administrative device that restricts activities of tenants and contractors on sites where some asbestos contaminated soil remains in place. It is intended to limit potential future occupational and environmental liability for residual asbestos contaminated soil.

TNPA Listed Sites: TNPA sites identified as having asbestos contaminated soil and as such the restrictions of an Environmental Covenant apply.

TNPA: Transnet National Ports Authority (TNPA).

Off Site: Not on Transnet National Ports Authority (TNPA) property.

SHE: Safety Health and Environment.

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1. INTRODUCTION

This Asbestos Management Plan is intended to impose strict controls on work practices undertaken within:

- a) Asbestos contaminated sites currently listed as **Environmental Covenants**.
- b) Asbestos contaminated sites currently listed as **Low level Contamination Sites**.


See attached Appendix I and II.

This means that site specific health requirements such as strict controls on future work methods and the use of respiratory protection, will be required of tenants, contractors or TNPA employees who intend on undertaking any soil disturbing activities on asbestos contaminated sites. In addition, there are strict controls regarding the movement of asbestos contaminated soil within these sites and removal off-site.

2. BACKGROUND INFORMATION

Historically, raw asbestos was transported in open rail wagons from regions such as the Northern Cape and Zimbabwe, to the Port of Durban for export. Over many years (time frame could not be established), bags of raw mined asbestos fell off the wagons into rail marshalling yards (predominantly Kings Rest), sidings and connecting lines (particularly arrival and departure lines).

In the past the health risks of asbestos were relatively unknown / underestimated and therefore these bags were often left lying near the rail track or buried in shallow holes dug in the soil. Broken bags were left to disperse their contents throughout the yards and connecting lines. To further exacerbate the problem, the derailment of wagons, either containing or not containing asbestos, replacement of sleepers and ballast as well as general track maintenance work, all tended to further mix the asbestos into the soil.

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A study commissioned by Transnet National Ports Authority (TNPA) on asbestos contamination in soil, identified the various sites throughout the Port of Durban where asbestos has either previously or recently been found. These sites have been indicated on attached Appendix I. The sites listed under paragraphs 3 below, have been identified as being moderately to highly contaminated and therefore pose a potential health risk to any persons undertaking work involving the disturbance of soil.


The asbestos likely to be encountered on these sites today may vary as follows:

- a) Large buried stockpiles consisting of several bags of raw asbestos buried up to depths of approximately 1.5 metres.
- b) Loose clumps of either buried or surface asbestos, which generally tend to range in size from about the size of a person's hand to small barely visible pieces of a few millimetres in length.
- c) Clumps of asbestos that have been mixed within soil (soil that has been handled many times) to a point where the asbestos has separated literally into millions of small fibres that are invisible to the naked eye.

3. ENVIRONMENTAL COVENANT

An environmental covenant is an administrative device that restricts tenants, contractors or any other persons activities on sites where some asbestos contaminated soil remains in place. It is intended to limit potential future liability for residual asbestos contaminated soil by ensuring that:

1. The existence of asbestos-contaminated soil is fully disclosed.
2. It is not inadvertently disturbed.
3. Any engineering controls such as caps are maintained.
4. Any future soil disturbing activities are undertaken in accordance with specific health and environmental controls.

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While the general goal of most asbestos cleanups is to return a site to a condition where it can be safely used for any purpose (rehabilitation), this is not always technically possible or economically practicable. Restrictions limit use to **safe use**. These restrictions are necessary to protect human health and the environment from the potential of inadvertent exposures to residual contamination while encouraging economic development.

Environmental covenants are used by TNPA to document and enforce the use of restrictions necessary to maintain the integrity of the “cap” and ensure that contaminated soil remains beneath the protective cap. Asbestos-contaminated soil may pose little risk if it is covered with an appropriate material e.g. Crusher-run, Premix, Rail Ballast, a Geosynthetic fabric of suitable gauge in combination with clean soil and vegetation, Pavers, concrete and Tiles. The Capping material must be of an appropriate thickness (to be advised on merit) and ensure that asbestos is adequately contained and does not infiltrate or is transported by rainfall run-off, wind or other type drainage into surrounding environments.

Restrictions imposed by an Environmental Covenant include strict controls on future work methods and the implementation of health requirements e.g. controlling the movement of contaminated soil within the off-site and the strict use of respiratory protection, when a tenant or contractor intends on undertaking any soil disturbing activities on a Listed Site.

The current Listed Sites (Environmental Covenants) are provided as follows:

1. Y Site
2. Kings Rest Rail Marshalling Yard
3. The Hump (connecting line from Kings Rest to Pier 1)
4. Truck Staging area
5. NPA Stockpile 206 (located between the Natural Heritage Site and DCT Pier 2)
6. DCT Expansion Site (Pier 2)

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See attached plan Appendix I- Environmental Covenant Sites (as of November 2008)

Additional sites currently identified as low level asbestos contamination have been illustrated Appendix II of this AMP.


See attached plan Appendix II- Low Level Contamination Sites (as of November 2008)

4. ASBESTOS RELATED HEALTH RISKS

The US Environmental Protection Agency (EPA) as well as the International Agency for Research on Cancer of the World Health Organization has declared asbestos as a human carcinogen. Specifically, in studies of occupational exposure, inhalation of asbestos fibres has been shown to cause asbestosis (pulmonary fibrosis), pleural or peritoneal mesothelioma, and bronchial carcinoma.

Asbestos fibres are basically chemically inert. They do not evaporate, dissolve, burn or biodegrade in the environment. However, single fibres and clumps of fibres may be released in the air as dust as a result of wind erosion and other types of activities that generate dust. Once inhaled, fibres may be deposited and retained in the airways and lung tissue. Because asbestos fibres remain in the body, each exposure to asbestos increases the likelihood of developing an asbestos related disease. Many of these diseases caused by asbestos (asbestosis, mesothelioma, lung cancer) take between 15 and 40 years to be diagnosed.

The human respiratory system is assumed to accumulate fibres linearly with concentration. For this reason alone, the cumulative nature of asbestos in the lungs be it in small doses over long periods of time or a single large dose over a few hours or days, the health risks posed to potentially exposed employees should not be underestimated.

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5. PURPOSE

The Asbestos Management Plan (AMP) is intended to guide the actions of all persons on every occasion where:


- Identified asbestos contaminated soils on pre-identified sites are likely to be disturbed.
- Repair, maintenance and dismantling of asbestos cement products on any TNPA owned land.
- TNPA staff required to undertake maintenance work on rail infrastructure.

Essentially, tenants, contractors and TNPA employees occupying or working on asbestos contaminated land will need to submit site specific Safe Work Procedures to TNPA's Legal & Compliance and Environmental Management Departments, before undertaking any work involving soil disturbance on any of the listed asbestos contaminated sites as well as maintenance and dismantling of asbestos cement products on any TNPA owned land

Tenants and contractors may be held accountable to commitments made in their Safe Work Procedures. These Approved Safe Work Procedures may be referred to during audits conducted by TNPA's Legal & Compliance and Environmental Management Departments. Approved Safe Work Procedures compliance is a mechanism for self-regulation and does not replace the need for contractors or tenants to be compliant with occupational health & safety and environmental legislation.

This AMP is designed to:

- a) Provide guidance for tenants who are currently occupying or who may take occupation of land identified as Asbestos Contaminated.


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- b) Provide Principal Contractors and all sub-contractors with guidance regarding the Occupational and Environmental Management of asbestos contaminated soil whilst undertaking work on Asbestos Contaminated Sites.
- c) Assist with keeping to a minimum or preferably prevent the release of asbestos fibres into the environment as well as protect employees and public health.
- d) To ensure compliance with the requirements of the Occupational Health and Safety Act 85 of 1993, Asbestos Regulations 2001, Environmental Conservation Act 73 of 1989 and National Environmental Management Act 107 of 1998.
- e) Provide guidance to TNPA Track maintenance personnel on asbestos management and monitoring programmes.

6. SCOPE OF APPLICATION

This AMP shall apply to any Transnet employees, tenants, contractors or persons on any TNPA property where:

- a) undertaking or intending to undertake work within known asbestos contaminated sites (e.g. work involving soil excavations, rail tracks, grading, excavating for pipe and cable trenches or light mast foundations and excavating for sewerage and storm water lines or any task involving the handling of soil within or from the listed asbestos contaminated sites),
- b) who may have (as insulating material) asbestos containing products on their site,
- c) who may have asbestos cement products (e.g. roofs, side cladding, gutters, fascia boards and down pipes).

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7. DOCUMENTATION REQUIREMENTS - PROJECTS

7.1 PROJECTS ON SITES DESIGNATED AS ENVIRONMENTAL COVENANTS SITES AND LOW LEVEL CONTAMINATION SITES


Table 1 provides a summary of the documentation required by TNPA Programme Managers / Representative. This information will need to be compiled by any Tenant, Principal Contractor, Sub-Contractor or any other person's activities on sites where some asbestos contaminated soil remains in place.

Table 1: Summary of the required SHE documentation for Tender Documents

ITEM No	DOCUMENTATION	TIMING	LEGAL REF:
1	Appointment of an Approved Asbestos Inspection Authority AAIA (To provide guidance on legal requirements and the requirements of this AMP).	Before starting the contract	Asbestos Regulations, 2001. Regulation No 21 and 16.
2	Copy of an Approved Asbestos Work Plan , (Approved by an AAIA and forwarded to the Department of Labour – Provincial Director).	Before starting the contract	Asbestos Regulations, 2001. Regulation No 21 and 16.
3	Copy of Approved Safe Work Procedures , (Approved by an AAIA).	Before starting the contract	Asbestos Regulations, 2001. Regulation No 21 and 16.
4	Proof of employee Training and Information (Asbestos) e.g. certificates.	Before starting the contract	Asbestos Regulations, 2001. Regulation No 5 and 16.
5	Proof of Medical Surveillance, both lung function and x-rays. (for all employees working on an asbestos contaminated site-site)	Before starting the contract	Asbestos Regulations, 2001. Regulation No 9 and 16.
6	Provide a report on air monitoring results (asbestos), whilst undertaking work on a contaminated site.	Upon termination of the contract.	Asbestos Regulations, 2001. Regulation No 8. and 16.

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7	Where applicable, provide all Certificates of Safe Disposal and / or Waste Manifest documentation for any asbestos contaminated soil removed from a contaminated site.	Upon termination of the contract.	TNPA requirement.
8	Where applicable, provide details e.g. a register or inventory of quantities and locations (GPS co-ordinates of the removal and final storage sites) of any clean soil removed from any TNPA owned site . This soil must be declared clean by an AAIA before being transported off-site. In addition, provide details e.g. a register or inventory of quantities and locations (GPS co-ordinates of the removal and final storage sites) of any asbestos contaminated soil transferred within any TNPA owned site .	Upon termination of the contract.	TNPA requirement.
9	Letter from TNPA Legal & Compliance and Environmental Departments stating the site has been adequately capped or otherwise rendered in an acceptable condition regarding asbestos contaminated soil.	Upon termination of the contract.	TNPA requirement.

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8. ASBESTOS THAT FORMS PART OF STRUCTURE OF BUILDING OR PREMISES

8.1 ASBESTOS CEMENT PRODUCTS

All tenants on TNPA property shall make and maintain a written asbestos inventory of the location of asbestos in their place of work, building, plant and / or premises (Regulation 14(b), Asbestos Regulations 2001.). A copy of this inventory is to be forwarded to the **TNPA Property Manager**.


8.2 HANDLING OF ASBESTOS CEMENT PRODUCTS

In order to ensure that the handling, altering, cleaning, preparation for painting or removal of any asbestos cement products, is carried out in a safe, uniform and appropriate manner as required by the Asbestos Regulations 2001, framed under the Occupational Health and Safety Act (Act No. 85 of 1993) and the Environment Conservation Act, 1989 (Act No 73 of 1989). The Tenant will either:

- a) Acquire the services of an AAIA in order to train their employees and draw up Asbestos Safe Work Procedures (in-house) or alternatively,
- b) Acquire the services of a Registered Asbestos Contractor (out of house). Proof of training will be kept in the site Health and Safety files which will be handed over to the **TNPA Property Manager** upon completion of the work / contract.

8.3 DOCUMENTATION REQUIREMENTS – ASBESTOS CEMENT PRODUCTS

Both tenants and contractors undertaking the handling, altering, cleaning, preparation for painting or removal of any asbestos cement products whilst on TNPA property, must ensure that they provide the designated TNPA Programme Managers/Property Managers with the following documentation:

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- i. Proof (certificates) that employees handling asbestos cement products have been adequately and comprehensively informed and trained in this regard.
- ii. Provide current Asbestos Safe Work Procedures showing that the asbestos cement materials were handled in a safe, uniform and appropriate manner. Asbestos Safe Work Procedures must be drawn up by an AAIA.
- iii. Provide an updated version of the Site's written asbestos inventory.

9. SITE ACCESS


It is essential that where any work involving soil disturbing activities on an Asbestos Contaminated Site (Environmental Covenant Sites only), access to that site will need to be strictly controlled for the duration of the activities. This measure is necessary to:

- Assist with the enforcement in the use of respiratory protective equipment by any person entering the site.
- Prevent exposures to unsuspecting persons passing through the site (e.g. taking short cuts through the site).

10. ROLES AND RESPONSIBILITIES

The Tenant, Contractor or TNPA employee, where applicable, must provide TNPA's Legal & Compliance and Environmental Management Departments with a SHE File containing the name of a person (to be shown in the Approved Safe Work Procedures) responsible for the:

- 1) Implementation of and adherence to the Safe Work Procedures.
- 2) Maintenance of records / documentation such as Air monitoring reports, employees medicals, proof of employee asbestos training and information, proof of certificates of safe disposal (where applicable) and documenting the movement of soil within and off-site (quantities and locations).

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11. TENANT CLOSURE


If a tenant decides or is instructed to terminate a lease agreement with TNPA, the tenant is responsible for ensuring that any soil disturbing activities that may have been undertaken on their site, that was previously capped, is not left uncapped (ref. capped. Definitions), prior to termination of the lease.

12. CONTRACTORS CLOSURE

The Principal Contractor must provide a description of the intended final state of the site's surface before and upon completion of the contract e.g. Crusher-run, Premix, concrete, paving, planting of vegetation or exposed soil. TNPA Legal & Compliance and Environmental Management Departments will conduct an asbestos site audit during and before termination of the contract.

13. ANNUAL REVIEW


For 2008 there have been a significant number of developments occurring throughout the Port of Durban. In particular there are two sites, namely the Truck Staging area and the DCT Expansion site (additional Gantry Crane). The asbestos contaminated soil on both these sites has been capped with Premix and Concrete respectively and therefore categorised as Environmental Covenant sites. The Truck Staging area currently contains a contaminated soil stockpile located outside the eastern boundary of the site adjacent to the Silt Channel (north). This is in the process of being capped as per TNPA requirements and is included with the Truck Staging area as an Environmental Covenant site. During the latter part of this year and early 2009, TNPA's Asbestos Working Group (AWG) undertook a costing exercise for the rehabilitation of the sites listed on page 6. The AWG is currently waiting for feedback from Transnet.

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For 2009, it is anticipated the completion of workshops and stores for Y Site will see the importation of clean aggregate with a cap of G Block paving. Any remaining uncapped areas will need to be dealt with upon completion of all construction. Y Site is categorised as an Environmental Covenant site.

The remainder of the lines and yards deemed as low level contaminated sites have been earmarked for clean-up during the first quarter of this year (2009).

This document will be revised annually with this copy (Rev: 3) being the first edition released by TNPA.

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14. CONTACT DETAILS

For further information on the implementation of this Asbestos Management Plan kindly contact the following:

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Company Name: TNPA – Environmental Department
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Company Name: Apex Environmental (AAIA)
Contact person: Robert Randolph
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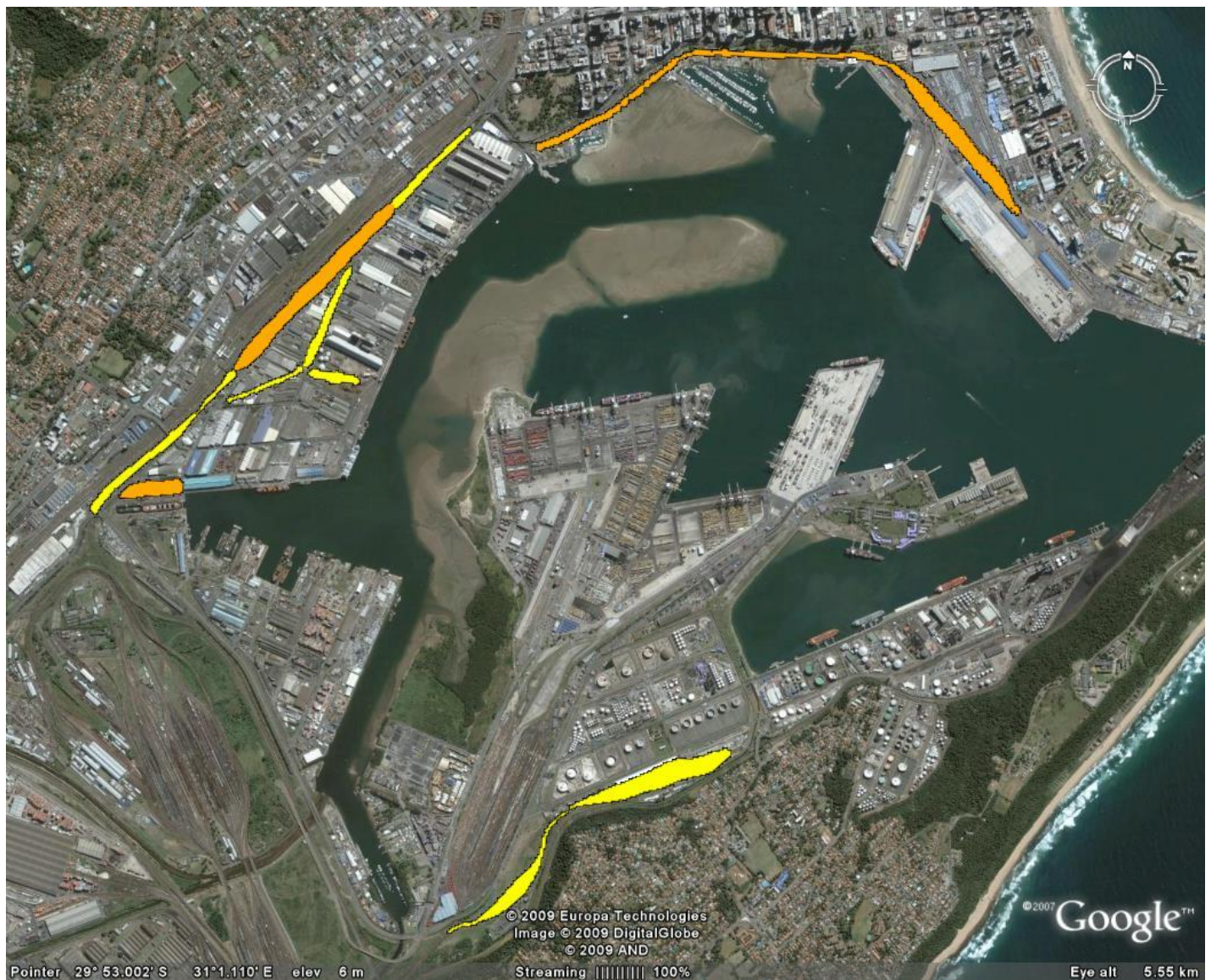
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Appendix I – Environmental Covenant Sites (as of November 2008)



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Appendix II – Low Level Contamination Sites (as of November 2008)



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