PORT OF RICHARDS BAY

Document Title:
SCOPE OF WORK 2026 – 3 months

Project Title:
RICHARDS BAY DUST MONITORING AND MANAGEMENT CONTRACT – 3 MONTHS

REVISION 07: REQUEST FOR QUOTATION

1 INTRODUCTION:

Transnet Port Terminals (TPT) provides services for the handling of imports, exports and storage of dry bulk and break-bulk cargoes in the Port of Richards Bay on the north coast of KwaZulu-Natal. The terminal handles tens of millions of tons of cargo annually (import and export) and is a key link between marine and terrestrial cargo transport. The terminal currently handles a variety of products such as alumina, andalusite, coking coal, chrome, magnetite, ferro fines, fertiliser, metallurgical coke, petcoke, rock phosphate, rutile, salt, sulphur, titanium slag, vanadium slag, vermiculite, wood chips, zircon, granite monoliths, logs, paper rolls and pig iron.

The terminal also facilitates intermediate storage, with bulk cargo being stored in open storage areas, and in warehouses. The cargo is imported and exported utilizing a complex conveyor system. The storage, transfer and handling processes result in the generation of dust, both within the plant and on the quayside.

The land on which TPT is located is zoned as Port Related Industrial and is surrounded by other (typically harbour-related) industries such as other cargo handling facilities, workshops and administration / office buildings supporting these industries.

The terminal is currently undertaking a listed activity identified in terms of Section 21(1) of the National Environmental Management: Air Quality Act. The terminal has been issued with an Atmospheric Emissions License (KNUT017/AEL0005/3). A requirement thereof is the consistent monitoring of dust emissions.

2 SCOPE OF WORK:

The Richards Bay Terminal requires an experienced service provider to be appointed to manage and control the dust monitoring activities at the terminal inclusive of the following actions:

2.1 The service provider must conduct dust fallout monitoring in eight principal wind directions.

2.2 Dust bucket changeovers shall be conducted on a monthly basis, and a report shall be compiled. The report is to include the dust fallout results per device and provide a detailed and objective analysis of air quality impacts. The report must be delivered to TPT electronically within one month of sample collection.

2.3 Results are to be compared against the relevant legal limits i.e. as stipulated by the NEM: AQA, 2004 (Act No. 39 of 2004) including the National Dust Control Regulations.

2.4 The service provider must consider the following when determining the locations of the air quality monitoring devices: a) Review historic data; b) Conditions stipulated in the AEL; c) Expert opinion.

2.5 Monthly Gravimetric and Metal analysis to be conducted and reported on at monitoring points. The following parameters are to be included: chromium, copper, manganese and iron. Metal analysis must be conducted on fenceline samples from dust buckets on those which exceed the National Dust Control regulations threshold for Non-residential standards.

2.6 Dust fallout sampling and laboratory analyses must comply with the following American Society of Testing Materials (ASTM) method: D 1739 – 98 Standard Test Method for Collection and Measurement of Dust fall (Settleable Particulate Matter), including soluble and insoluble analysis.

2.7 Evaluate the ambient air quality information and determine how much dust the Terminal contributes to the ambient air quality, and under what conditions dust is generated.

2.8 Data recovery for all parameters shall be at least 80 percent computed on a quarterly and annual basis. [Data Recovery = (Number of data points collected in evaluation period)/ (number of scheduled data points in evaluations period) *(100%)].

2.9 The service provider will maintain the following dust monitoring devices:

1) 2 x Topas, Total Suspended Particulates (PM_{10}, $PM_{2.5}$) continuous analyser, fitted with an internal data logger as well as a wind speed and direction monitor.
2) 13 Dust buckets (9 fence line and 4 internal and placements)

2.10 The service provider must conduct full maintenance, of the instruments and check the integrity of the dust buckets. All breakdowns and failures must also be attended to timeously.

2.11 The current emissions inventory, as approved in the AEL, must be maintained and updated as necessary.

2.12 The service provider shall be required to conduct and submit Particulate Matter (PM) sampling (isokinetic) in accordance with the applicable environmental authorization as well as the atmospheric emissions licence.

2.12.1 The Service provider will be required to conduct sampling at 3 identified locations:

- Tippler 1.
- Tippler 2.
- Bottom Discharge.

2.12.2 The service provider will be required to provide a report for each one of the above-mentioned samples sites.

2.12.3 The service provider shall be required to conduct six (6) Isokinetic samples

2.13 The service provider must conduct a biennial audit on the facility against the conditions of the AEL. The audit must include:

(a) a site inspection report with photographs and monitoring results

(b) indicate compliance with the Atmospheric Emissions Licence conditions and action plan for identified non-conformances and agreed timeframes.

(c) be complied by an intendent qualified person.

(d) must be submitted to the authority within 30 days of the audit date.

3 DELIVERABLES

3.1 Monthly Comprehensive Air Quality Reports.

3.2 Monthly Authority Reports.

3.3 Quarterly report (Internal and authority)

3.4 Monthly review of the progress of the terminal as compared with legislative requirements.

3.5 Installed and functional devices that will measure dust against legislative requirements and SANS standards, if applicable (you will have to indicate what the monitoring system will do and why, to comply with what).

3.6 Maintain an existing statistical database of results.

3.7 Provide continuous sound and practical advice and monthly reports on innovative solutions/ technologies with the aim of reducing dust emission levels including an assessment on cargo migration and handing methods in the terminal.

3.8 Isokinetic Report

3.9 AEL Audit Report