

SPECIFICATION FOR CONDUCTING OCCUPATIONAL HYGIENE SURVEYS AT TRANSNET NATIONAL PORTS AUTHORITY (TNPA), LIGHTHOUSE AND NAVIGATIONAL SYSTEMS (TNPA LNS)

1. BACKGROUND

The Occupational Health and Safety Act requires every employer to identify, evaluate and control occupational health stressors in the workplace that may result in injury, illness or affect the wellbeing of workers.

2. SCOPE OF WORK

TNPA requires the expertise of an Approved Inspection Authority for Occupational Hygiene to conduct occupational hygiene surveys at the TNPA Lighthouse and Navigational systems workshops and lighthouses as listed below. Information will be obtained from persons who are familiar with the processes, tasks, and environmental stress factors.

The occupational hygiene surveys will be conducted to ensure compliance to the statutory requirements for occupational health hazards. On completion of the project the client will be issued with a report detailing the outcomes of the surveys and recommendations for improvement. Recommendations should be aligned to TNPA LNS **operations** and **Practicable**. Report must be issued after **45 working days** from the last day of site survey.

Project to start on the **45 working days** from the last day of site survey.

3. LOCATION

The services specified within this specification are required to be conducted at the at two sites in KwaZulu Natal (Durban) and two sites in Western Cape- Cape Town, South Africa.

- **Lighthouse and Navigational systems: Cape Town Workshop**
- Illumination, Ergonomic: office and workshop, Ventilation: Indoor and outdoor air quality, drinking water and noise surveys (machine rooms: various equipment), hazardous chemical agents, heat stress, hazardous biological agents, Asbestos, dust monitoring
- **Lighthouse and Navigational systems: Durban Workshop**
- Illumination, Ergonomic: office and workshop, Ventilation: Indoor and outdoor air quality, drinking water and noise surveys (machine rooms: various equipment), hazardous chemical agents, heat stress, hazardous biological agents, Asbestos, dust monitoring
- **Lighthouse and Navigational systems: Green Point Lighthouse**
- Illumination, Ergonomic: office and workshop, Ventilation: Indoor and outdoor air quality, drinking

water and noise surveys (engine rooms, optic room), hazardous chemical agents, heat stress, hazardous biological agents, Asbestos, dust monitoring

- **Lighthouse and Navigational systems: Cooper Lighthouse**
- Illumination, Ergonomic: office and workshop, Ventilation: Indoor and outdoor air quality, drinking water and noise surveys (engine rooms, optic room), hazardous chemical agents, heat stress, hazardous biological agents, Asbestos, dust monitoring
- Access to sites can be arranged with Regional Manager/Supervisors contact details to be advised.

4. WORKING HOURS

Working hours are from 08:00 to 16:00 Monday to Friday excluding public holidays.

- The duration of the works shall be 1 week.
- The completion date for the project shall be stated on issue of the purchase order to be based on the lead time as stipulated below
- Appointed TNPA representatives Michelle Williams (Project Manager) , West and East Regional Managers (Thomas George Makondo, Menathi Sihewula)

5. KEY FUNCTIONS

- Walk through survey at all the areas
- Surveys of all the work activities
- Evaluation and interpretation of results
- Report writing

6. LIST OF OCUPATIONAL HYGIENE SURVEYS REQUESTED

6.1. Illumination

Illumination assessment for artificial lighting of interiors to be conducted in accordance with the requirements set in the Environmental Regulations for Workplaces promulgated under the Occupational Health and Safety Act, No.85 of 1993.

- Regulation 3: Lighting.

Illumination measurements to be conducted as per the South African National Standards, (SANS) stated below:

- SANS 10114-1: 2020 (Interior lighting Part 1: Artificial lighting of interiors).
- SANS 10114-1: 2020 (Interior lighting Part 2: Emergency lighting).
- SANS 10389-1: 2003 (Exterior lighting Part 1: Artificial lighting of exterior areas for work and

safety).

6.2. Ergonomics

An ergonomics risk assessment for to be conducted in accordance with the requirements set in the Ergonomics Regulations (2019) promulgated under the Occupational Health and Safety Act, Act No.85 of 1993.

- Regulation 6: Ergonomics risk assessment
- Regulation 7: Risk Controls
- Regulation 8: Medical Surveillance

6.3 Noise

A noise survey for hearing conservation purposes to be conducted in accordance with the requirements set in the Noise-Induced Hearing Loss Regulations, 2003 promulgated under the Occupational Health and Safety Act, Act No.85 of 1993.

- Regulation 6: Assessment of potential exposure
 - Regulation 7: Noise monitoring
 - Regulation 8: Medical Surveillance
 - Regulation 10: Control of noise exposure
- Noise measurements shall be conducted in accordance with South African National Standards, SANS 10083 of 2021. (The measurement and assessment of occupational noise for hearing conservation)
- Area noise samples
 - Personal noise samples

6.4 General ventilation (Indoor Air Quality)

The assessment of natural and mechanical means of ventilation in accordance with:

Environmental Regulations for Workplaces (1987), Regulation 5.

Assessment of ventilation parameters with the use of Part O (Ventilation) of the South African National Standards, for the Application of the National Building Regulations, SANS 0400-1990 in terms of the National Building Regulations and Building Standards Act, Act No. 103 of 1977, as a guideline.

6.5 Dust monitoring

The assessment to determine if there is dust exposure in the workplace.

- National Environmental Management Act, Act 39 of 2004
- National Environmental Management: Air Quality Act: Regulations: National dust control

6.6 Drinking water

To assess the quality of the drinking water at TNPA LNS workshop

- South African National Standard: SANS 241

6.7 Hazardous Chemical Agents

The hazardous chemical agent's assessment to be conducted in accordance with the requirements of the Regulations for Hazardous Chemical Agents, 2021, promulgated under the Occupational Health and Safety Act, Act No.85 of 1993.

- Regulation 6: Air monitoring
- Regulation 12: Maintenance of control measures (Lead Regulations)
- Regulation 12: Maintenance and verification of control measures, plant machinery and facilities (Regulations for Hazardous Biological Agents)

6.8 Heat Stress

The identification of heat sources and the monitoring of exposure to the sources within the work environments.

- Environmental Regulations for Workplaces (1987), Regulation 2: Thermal Requirements.
- ISO 7243:2017 (Ergonomics of the Thermal environment-Assessment of heat stress using the WBGT (wet Bulb Globe Temperature) index.

6.9 Asbestos

The assessment and monitoring of asbestos in order to determine if any person may be exposed to asbestos in line with Asbestos Abatement Regulations:

- Regulation 3 Identification of asbestos in place
- Regulation 4 Inventory of asbestos in place
- Regulation 5 Asbestos risk assessment
- Regulation 6 Asbestos management plan
- Regulation 7 Information, instruction and training
- Regulation 10 Notification of asbestos work
- Regulation 15 Plan of work
- Regulation 16 Air monitoring
- Regulation 22 Asbestos clearance certificate

6.10 Hazardous Biological Agents (HBA's)

The assessment and monitoring of HBA to determine if any person may be exposed to HBA in line with the Regulations for HBA:

- Regulation 6: Risk Assessment for HBA's
- Regulation 7: Exposure monitoring of HBA's
- Regulation 12: Maintenance and verification of control measures, plant machinery and facilities

7. DOCUMENTS TO BE SUBMITTED

NO.	DESCRIPTION	REGISTRATION WITH PROFESSIONAL AND LEGAL BODIES	COMPLETED
1	Accreditation Certificate (Certified Copy) issued by SANAS under: - Asbestos Abatement Regulations: 4(2), 5(7), 13, 15(2)(c), 16 & 22 - Hazardous Chemical Agents Regulations: 6 & 12 - Noise Induced Hearing Loss Regulations: 7 - Dust Regulation		Yes/No
2	Registration Certificate of the Approved Inspection Authority (AIA) issued by the Department of Employment and Labour	AIA registration with DOL- A supplier is registered as an AIA and has valid certificate of approval from Department of labour. (Copies to be attached to the tender document)	Yes/No
3	SAIOH Registration Certificate (Certified Copy)	Proof of registration with South African Institute for Occupational Hygienist qualified in toxicology	Yes/No
4	Competency Certificates of Occupational Hygiene AIA personnel	Whether the Bid materially complies with the scope and/or specification given	
5	Calibration Certificates of equipment used		
6	Calibration Certificate of the testing laboratory used		
7	COMPLIANCE WITH STATUTORY AND OTHER REQUIREMENTS Comply with Occupational Health & Safety Act 85 of 1993 (OHSA) and its regulations		
8	Comply with Department of Labour and Department of Health requirements		
9	Comply with SANAS requirements		
10	Submit a SHE File upon award as per TNPA requirements		

10. PRICING INSTRUCTION

- Bidders are to price as per the specification excluding VAT in the Pricing Schedule below.
- Bidder must complete the accompanying **Pricing Schedule** in black ink and must submit it with their tenders.
- The prices and rates submitted in the **Pricing Schedule** shall be deemed to be fixed and shall not be subject to escalation during the contract period.
- Bidder are required to quote for all listed item on attached **ANNEXURE 1**

12. PRICE SCHEDULE

ITEM NO	ACTIVITY DESCRIPTION	PRICE
1	MONITORING PER HOUR	
	Occupational health risk assessment	
	Hazardous chemical agents	
	• Area monitoring	
	• Personal monitoring	
	Noise	
	• Area monitoring	
	• Personal monitoring	
	Ventilation	
	• Indoor air quality/Outdoor air quality	
	Illumination	
	• Office (day time)	
	• Project/operation site (night time)	
	Ergonomics	
	• Office	
	• Project/operation site	
	Thermal stress	
	• Cold stress	
	• Heat stress	
	Hazardous biological agents	
	Asbestos	
2	REPORT WRITING PER HOUR	
	Hazardous chemical agents	
	Noise	
	Ventilation	
	Dust monitoring	
	Indoor air quality	
	Illumination	
	Ergonomics	
	Thermal stress: Cold stress and Heat stress	

	Hazardous Biological Agent	
	Asbestos	
3	SAMPLING MEDIA INCLUDING ANALYSIS PER SAMPLE	
	• Total inhalable dust	
	• Welding fumes	
	• Diesel Particulate Meter (DPM)	
	• Water (the analysis will include both microbial, physical and chemical determinants)	
	• Surface sampling	
	• Heat measurement: Wet-bulb globe temperature	
4	ACCOMMODATION PER NIGHT	
5	TRAVELLING PER KILOMETRE	
6	TRAVELLING BY FLIGHT	
7	CAR RENTAL PER DAY	
	Total Price (excl. VAT)	

13. SIGN OFF

RECOMMENDED / NOT RECOMMENDED BY:



Signature

Name: Michelle Williams

Designation: SHEQ Manager

Date: 3 October 2025

APPROVED / NOT APPROVED BY:



Signature

Name: Sabelo Mdlalose

Designation: LNS – Executive Manager

Date: 03 October 2025