

**AIR TRAFFIC AND NAVIGATION SERVICES SOC. LTD
REPUBLIC OF SOUTH AFRICA**



**REQUEST FOR PROPOSAL
ATNS/TPG/RFP006/2025/2026/ACCESS CONTROL**

**THE APPOINTMENT OF A SERVICE PROVIDER FOR PROCUREMENT, DELIVERY,
INSTALLATION AND COMMISSIONING OF SECURITY ACCESS CONTROL
SYSTEMS AT ACSA AIR TRAFFIC SERVICES UNITS (ATSU) AND NON-ACSA AIR
TRAFFIC SERVICES UNITS**

BID SPECIFICATIONS VOLUME 1A APPENDIX B

JULY 2025

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ABBREVIATIONS

ACSA	Airports Company South Africa
ATA	Aviation Training Academy
ATC	Air Traffic Controller
ATNS ATA	ATNS Aviation Training Academy
ATNS	Air Traffic and Navigation Services SOC. Ltd.
ATNS HO	ATNS Head Office
ATS	Air Traffic Service
ATSU	Air Traffic Service Unit
COTS	Commercial off-the-shelf
FACT	Cape Town International Airport
FABL	Bram Fisher Airport
FAEL	King Phalo Airport
FAGG	George Airport
FAGM	Rand Airport
FAKM	Kimberley Airport
FAKN	Kruger Mpumalanga Airport
FAMM	Mahikeng Airport
FAOR	OR Tambo International Airport
FAPE	Chief Dawid Stuurman Airport
FAPM	Pietermaritzburg Airport
FAPN	Pilanesberg Airport
FAPP	Polokwane Airport
FARB	Richards Bay Airport
FAUP	Upington Airport
FAUT	Mthatha Airport
FAVG	Virginia Airport
FAWB	Wonderboom Airport
HMI	Human Machine Interface
IEEE	Institute of Electrical and Electronics Engineers
PC	Personal Computer
SAT	Site Acceptance Test
TCP/IP	Transmission Control Protocol/ Internet Protocol
UPS	Uninterrupted Power Supply
VHF	Very High Frequency

1 INTRODUCTION

1.1 Project Overview

- A) Security assessments conducted has identified a need to enhance the security measures at the **Air Traffic and Navigation Services (ATNS) facilities**, located at the Airports Company South Africa (ACSA) Air Traffic Services Units (ATSU) and Non-ACSA ATSU's. The proposed security interventions should increase ATNS capacity to protect its personnel, assets and information against theft, vandalism and various potential security threats as well as to ensure compliance with the relevant security regulations.
- B) The security systems that have been identified for enhancement are divided in electronic security and physical security. The electronic security is furthermore split between access control and, Closed-Circuit Television (CCTV), intercom, intruder alarm detection system and perimeter intrusion detection systems. The physical security and the other components of the electronic security requirements will be addressed under a separate phase of the project.
- C) The security systems shall be monitored and managed from the relevant maintenance centre
- D) The security project will furthermore establish a centralized monitoring and management capability, however the physical building for the housing of the centralized system and the personnel required are not included in this project scope of work.
- E) This phase of the project will implement the access control and establish the centralized monitoring and management capability on a country wide basis with a single request for proposal issued.
- F) The security systems that will be interfaced and integrated in the centralized monitoring and management capability shall include the following systems:
- a) **Access Control System (This tender),**
 - b) Closed Circuit Television (Separate tender),
 - c) Intruder alarm detection system (Separate tender),
 - d) Perimeter Intrusion detection system (Separate tender).

1.2 Project Scope

- A) This phase of the project calls for the procurement, delivery, installation and commissioning of security access control systems at the **Air Traffic and Navigation Services (ATNS) facilities** located at the ACSA Air Traffic Services Units (ATSU) and non-ACSA Air Traffic Services Units. Furthermore, the scope will include the following:
- The procurement of the access control systems.
 - The decommissioning of old/non-functional access control systems.
 - The installation of the new access control systems.
 - The commissioning of the newly installed access control systems.
 - The integrating of the new access control system in the centralized security system.
 - The maintenance and support for the newly installed access control systems.

- The system operation and technical training of the installed access control systems.
- The disposal of the decommissioned access control systems.

1.3 Project Deliverables

- A) The security system identified for implementation under this phase of the project shall include the access control systems.
- B) The system components should be commercially off-the-shelf (COTS) as far as possible.
- C) The deployed access control systems shall be interfaced and configured for monitoring and management from the relevant maintenance center.
- D) The deployed access control systems shall be interfaced and configured for monitoring and management from a centralized security system.
- E) The access control systems shall be deployed at the following locations:

ACSA ATSU
Bram Fisher Airport (FABL)
George Airport (FAGG)
King Phalo Airport (FAEL)
Upington Airport (FAUP)
Chief Dawid Stuurman Airport (FAPE)
Kimberley Airport (FAKM)
Non-ACSA ATSU
Wonderboom (FAWB)
Rand Airport (FAGM)
Mahikeng Airport (FAMM)
Polokwane Airport (FAPP)
Kruger Mpumalanga Airport (FAKN)
Mthatha Airport (FAUT)
Centralized Security ATNS HO

- F) The exact location of the centralized security system will be confirmed at the time of deployment; however, it will be in the Gauteng area.

2 REFERENCES

South African National Standards (SANS) 10142-1 The wiring of premises – Part 1: Low-voltage installations

Occupational Health and Safety (OHAS) Act, No 85 of 1993.

The National Aviation Security Programme (NASP)

The ATNS's Aviation Security Programme (ASP)

CHAPTER 1: GENERAL SPECIFICATIONS

3 SYSTEM DEPLOYMENT

3.1 Stations

- A) The access control systems shall be deployed at the identified locations across South Africa as defined in Table 1: Locations and Maintenance Centers.

Table 1: Locations and Maintenance Centers

LOCATION	MAINTENANCE CENTRE	MONITORING AND CONTROL	EQUIPMENT CABINET
Bram Fisher Airport (FABL)	FABL	Local & Remote	Freestanding
George Airport (FAGG)	FACT	Local	Freestanding
King Phalo Airport (FAEL)	FAEL	Local	Freestanding
Upington Airport (FAUP)	FABL	Local	Freestanding
Chief Dawid Stuurman Airport (FAPE)	FAPE	Local & Remote	Freestanding
Kimberley Airport (FAKM)	FABL	Local	Freestanding
Wonderboom (FAWB)	FAOR	Local	Wall Mounted
Rand Airport (FAGM)	FAOR	Local	Wall Mounted
Mahikeng Airport (FAMM)	FAOR	Local	Wall Mounted
Polokwane Airport (FAPP)	FAOR	Local	Wall Mounted
Kruger Mpumalanga Airport (FAKN)	FAOR	Local	Wall Mounted
Mthatha Airport (FAUT)	FAEL	Local	Wall Mounted
Cape Town (FACT)	FACT	Remote	Freestanding
OR Tambo International Airport (FAOR)	FAOR	Remote	Freestanding
Centralized Security	ATNS HO	Remote	

- B) The access control systems shall be implemented without interfering with the operation of existing aviation equipment deployed on site or the ATNS personnel performing air traffic control activities.

3.2 Quantities

The project deployment shall be based on the following quantities:

Table 2: Quantities per ATSU

ATSU	Access Points	Indoor Readers	Outdoor Readers	RFID Cards	PVC Cards
Bram Fisher Airport (FABL)	8	16		500	500
George Airport (FAGG)	10	14	6	100	100
King Phalo Airport (FAEL)	16	24	8	100	100
Upington Airport (FAUP)	4	8		50	100
Chief Dawid Stuurman Airport (FAPE)	19	27	10	500	500

Kimberley Airport (FAKM)	2	3	1	50	100
Wonderboom (FAWB)	2	2	2	50	100
Rand Airport (FAGM)	2	2	2	50	100
Mahikeng Airport (FAMM)	3	4	2	50	100
Polokwane Airport (FAPP)	2	2	2	50	100
Kruger Mpumalanga Airport (FAKN)	3	4	2	50	100
Mthatha Airport (FAUT)	6	11	1	50	100

4 IT REQUIREMENTS

4.1 User Capabilities

- A) The access control systems shall cater for different users with configurable user permissions.
- B) The access control systems shall be configurable to cater for at least two (2) user levels and associated permissions as shown in the table below.

Table 3: User permissions.

#	USER	PERMISSIONS
1	Super User	Full system access
2	Administrator	All access excluding configuration changes.

- C) Two resources at each location shall be allocated Super User system access. These resources shall be confirmed at time of installation, however as default they will be the Manger Technical Services (MTS) and Supervisor Technical Services (STS).

4.2 Cyber Security Requirements

- A) The access control system should use strong authentication mechanisms to prevent unauthorized access. This means it should support the use of strong passwords and Multi-factor Authentication (MFA).

Table 4: Multi-factor Authentication

Multi-factor Authentication	
Minimum password length	10 characters for ordinary accounts and 18 characters for privileged accounts
Password complexity	A combination of upper case, lowercase, numbers, and special characters supported by the application.
Account lockout	After 3 unsuccessful consecutive logon attempts.
Lock-Out Duration	Lockout will remain in place until the password is reset by the system administrator or through user self-service.
Password history	Last 10 passwords

- B) Manufacturers should release regular firmware updates to address security vulnerabilities and improve the overall security of the access control system. This is for both the operating system and the application.

- C) Default configuration settings like manufacturer username and passwords should be changeable by ATNS. In addition, ATNS should be able to disable unnecessary features and services that may compromise security of the system.
- D) Network Security – The access control system shall be placed in a separate VLAN to isolate it from the rest of the network. Remote access shall only be granted on a need basis, through secure protocols configured on the firewalls.
- E) The access control system shall comply with ATNS cyber security requirements which includes use of a support operating system, use of ATNS approved anti-virus system, logging of configuration changes and system events and periodic vulnerability assessments.

5 GENERAL SPECIFICATIONS

5.1 Power Supply

- A) The main system and all equipment supplied shall operate from the standard South African utility power supply as defined below:
 - 230 VAC, Tolerance: $\pm 10\%$
 - Frequency: 50 Hz, Tolerance: $\pm 5\%$

5.2 Electrical Installation

- A) The access control systems shall be connected to an existing backup power supply that may consist of either an existing Generator, an existing Uninterruptable Power Supply (UPS) or an existing Inverter system to protect the system from surge currents/voltages and provide continuous backup power should the main power supply be interrupted.
- B) Those devices that cannot be supported by the UPS shall be provided with a battery backup. The battery backup shall be able to keep the device operational for a minimum period of 6 hours after a power failure. The devices that will require a battery backup shall be capable of providing a low battery alert.
- C) Surge arrestors shall be installed to protect the access control equipment and its components against lightning and power surges.
- D) A Certificate of Compliance (CoC) shall be issued at each station for the electrical work done.
- E) All electrical works shall comply with the South African National Standards (SANS) 10142-1 The wiring of premises – Part 1: Low-voltage installations (Edition 3: 2020).

5.3 Network Communication Layout

- A) The access control system shall make use of existing network, where applicable, for communication between the various components.

- B) New CAT6 Ethernet cables shall be installed to connect the necessary equipment (i.e., proximity readers, etc.) to the network. A maximum length of 50m of cable per item, shall be quoted for at each location to cater for each of the items (proximity readers, etc.).
- C) All cabling shall be neatly installed in cable ducting/trunking.
- D) Once the installation is completed, the total length of cable, trunking and ducting used will be audited and ATNS will pay the contractor accordingly.

5.4 Environmental Conditions

- A) The system and its auxiliary components shall operate continuously under the following environmental conditions without any degradation in performance.

Table 5: Environmental Conditions

Parameter	Value
Outdoors	
Temperature	-10° to +55°C
Relative Humidity	10% to 90% (non-condensing)
Indoors	
Temperature	-5 °C to +35 °C
Relative Humidity	10% to 80% (non-condensing)
Protection Rating	
Ingress Protection (IP) Rating	IP65 (Except where indicated otherwise)
Mechanical impact protection rating	IK08

5.5 Decommissioning and Disposal

- A) Existing systems that have been identified for replacement shall be decommissioned, uninstalled, disassembled and disposed of in an environmentally friendly manner and in line with current environmental laws.
- B) Waste shall be managed according to the ATNS waste management policies and there shall be adherence to the requirements of the National Waste Management Act (No.59 of 2008).
- C) Records of disposal shall be kept at sites and also sent to ATNS Environment & Sustainability Department.

5.6 System Maturity and Lifespan

- A) The design life of the access control systems offered shall be at least 10 years.

CHAPTER 2: ACCESS CONTROL REQUIREMENTS

6 MAIN ACCESS CONTROL SYSTEM

6.1 General

- A) The access control system shall consist of, the following devices, including but not limited to:
 - a. Server
 - b. Proximity readers
 - c. Door controllers
 - d. Desktop for enrolment of new users - biometrics, Radio Frequency Identification (RFID) and Personal Identification Number (PIN) code registration
 - e. Biometrics enrolment reader/writer
 - f. Card printing machine
 - g. Locking mechanisms (Magnetic door lock)
- B) The access control system shall be scalable.
- C) The access control system shall cater for multiple entry/exit points.
- D) The access control system shall allow for the configuration of different zones with different access rights. The access control system shall thus allow for the configuration of zones to have restricted access to authorised personnel only.
- E) Each zone shall be monitored by the access control system and a record of users entering and exiting the zone shall be kept.
- F) The cabling for the new access control system shall be installed in the existing cable routes, ducts and trays as far as possible.
- G) The access control system shall allow for visitors and contractors to be enrolled on a temporary basis with an access time or duration limit. Visitors and contractor's identification details shall be stored on the database.
- H) All devices associated with the access control system shall have a power status indicator.
- I) The access control system shall cater for an interface from the existing fire detection system. The interface shall be a N/O (normally open) relay contact or a N/C (normally closed) relay contact.
- J) In the event of a fire and during an emergency evacuation, the access control system shall unlock all doors automatically.

6.2 Access Control Management System

- A) A central access management system shall be provided to manage the access control system.
- B) The access management system shall have a user-friendly Human Machine Interface (HMI).

- C) The access management system shall cater for administrator access to the server and a database where users and events are stored.
- D) The access management system shall allow for the setting up of access zone profiles. The system shall allow for the different zone profiles to be applied to specific user types. The system shall allow for access to be scheduled and restricted during specific times.
- E) The access management system shall generate a visual and audible alarm/alert when an entry/exit door is left open for longer than a configurable duration.
- F) The access management system shall log and track all system changes. The system shall be capable of extracting all system changes into a report in pdf format.
- G) The Unified Modelling Language (UML) architecture of the access management system software shall be provided.

7 AUXILIARIES AND SUPPORT SYSTEMS

7.1 Proximity Reader

- A) There shall be 2 proximity readers installed for each of the entry/exit points.
- B) The proximity readers shall have the ability to identify personnel by means of:
 - a. RFID cards
 - b. Fingerprints
 - c. Keypad PIN codes
 - d. Any combination of the above
- C) The proximity readers shall support Transmission Control Protocol/Internet Protocol (TCP/IP) network communication.
- D) The proximity readers shall support PoE (Power over Ethernet).
- E) The proximity readers shall provide an indication to show when access is granted or denied. If the indication is in the form of a LED light, the LED shall glow green when access is granted and red when access is denied.
- F) The proximity reader shall support the following RFID technologies, including but not limited to:
 - a. HID 125KHz
 - b. MIFARE 1K
 - c. MIFARE 4K
 - d. MIFARE Ultralight / C
 - e. MIFARE DESFire / EV1
 - f. MIFARE Mini
- G) The proximity reader shall have a card reading distance of 0 to 5cm.
- H) The proximity reader shall have a card reading duration of less than 1 second.
- I) The proximity reader shall have an optical fingerprint module.
- J) The proximity reader shall have a fingerprint comparing mode of 1:1 and 1:N.

- K) The proximity reader shall have a fingerprint False Acceptance Rate (FAR) of less than 0.001%.
- L) The proximity reader shall have a fingerprint False Rejection Rate (FRR) of less than 0.01%.
- M) The proximity reader shall be plug-and-play and seamlessly integrate with the access management system.
- N) All outdoor proximity readers shall have an IP67 rating and shall be fitted with an outdoor weatherproof housing to protect the unit from direct sunlight.

7.2 Door Controller

- A) The access control system shall incorporate door controller(s). Door controllers can be associated per system, or per zone, or per door or per proximity reader.
- B) The supplier's system configuration shall determine the number of door controllers to accommodate the number of entry/exit points and associated proximity readers per location.
- C) All door controllers shall be installed in a manner that the controller and all cables connected to it are secured and temper proof.
- D) The door controller(s) shall have a storage capacity that can accommodate the database, of unique identification (biometrics, RFID card and PIN code) information, for a minimum of 100 people per location.
- E) The database on the door controller(s) shall be updated/synchronised when changes are made at the access management system.
- F) All events from the door controllers shall be recorded and stored on the central server. During a power or network outage, the door controller(s) shall have a storage capacity to cater for at least 100,000 events until the power or network is restored.
- G) The door controller(s) and all associated devices (i.e., proximity readers, locking mechanisms, etc.) shall be able to function independently of the connection to the server and the backup power supply.
- H) All data stored on the door controller(s) shall be retained during a power failure.
- I) A bypass key switch shall be installed on the unsecured side of each door where a door controller is installed. All bypass keys for one location shall be keyed alike. At least four (4) copies of the bypass keys shall be provided at each location.
- J) A green resettable emergency door release call point shall be installed on the secure side of each door where a door controller is installed.

7.3 Access Cards and Card Printing Machine

- A) RFID cards which are compatible with the access control system shall be provided with the system.
- B) Blank Polyvinyl chloride (PVC) cards shall be provided for ATNS employee credentials to be printed on.

- C) Three (3) types of printing templates for the employee cards shall be designed and supplied. The layout of the templates shall be provided by ATNS after contracting.
- D) There shall be one (1) user registration workstation (local operator and monitor position) with a biometric reader/writer and associated card printing station installed at each ATSU. The location of the workstation for each ATSU will be confirmed during installation.
- E) All workstations shall have the capability to enrol new users and print access cards.
- F) Card printing machines shall be delivered with a colour printer ribbon. Each printer ribbon shall have a yield of at least 500 cards.
- G) One spare colour printer ribbon shall be provided for each card printing machine.
- H) The unit cost for purchasing additional RFID cards after the project has been implemented shall be provided.

7.4 Locking Mechanism

- A) A locking mechanism shall be provided for each of the entry/exit doors where a door controller is installed.
- B) The locking mechanism shall be a magnetic lock or equivalent.
- C) The locking mechanism shall have minimum break force of 500kg.
- D) The locking mechanism shall be compatible with the proposed door controller.
- E) The locking mechanism shall be installed on the inside of the door and the design shall cater for doors opening to the outside as well as to the inside.
- F) The locking mechanism shall have an LED to display the lock status.
- G) The locking mechanism shall generate an output signal to provide the lock status to the door controller and the access management system.
- H) The locking mechanism shall cater for an interface from the intercom system, where applicable, so that it can be unlocked from the intercom's handset.

7.5 Automatic Door Closures

- A) All doors and gates, where a door controller is installed, shall be fitted with an automatic door closure.
- B) The door closure shall be able to cater for a door weight of up to 50kg.
- C) All door closures shall be installed indoor.
- D) The closing and latching speed of the door closures shall be adjustable.
- E) The door closure shall have a soft-close mechanism.

7.6 Door Open/Close Sensor

- A) A door open/close sensor shall be installed on all entry/exit points where a door controller is installed.

- B) The door open/close sensor shall communicate the status of the door to the door controller and the access management system.
- C) An audible alarm, configurable per door, shall be generated at each door, if the door is left open for longer than a configurable duration. This will mostly be required at external access points and will be de-activated for internal access points. It must be possible to cancel the alarm, locally at the door, by means of a cancellation pin code.

7.7 Network Connectivity

- A) The access control system and all associated devices shall support TCP/IP for network connectivity.
- B) All the devices associated with the access control system shall support Power over Ethernet (PoE).

CHAPTER 5: SUPPORTING INFRASTRUCTURE REQUIREMENTS

8 SYSTEM INTERFACE REQUIREMENTS

- A) The security devices shall cater for the following interfaces where applicable:
 - a. Ethernet
 - b. RS485
 - c. RS422
 - d. USB

9 SYSTEM HOUSING

- A) Dedicated 19-inch, wall mountable equipment cabinets, one per location, shall be provided to house the equipment for the access control systems as well as the associated support and auxiliary hardware offered for the locations identified in Table 1: Locations and Maintenance Centers.
- B) Dedicated 19-inch, freestanding equipment cabinets, one per location, shall be provided to house the equipment for the access control systems as well as the associated support and auxiliary hardware offered for the locations identified in Table 1: Locations and Maintenance Centers.
- C) The equipment cabinet shall be installed in the equipment room at each of the locations identified unless specifically stated otherwise.
- D) The equipment cabinets shall have at least 12U spare capacity after the access control system equipment has been installed.
- E) The equipment cabinet(s) shall account for natural heat dissipation and a proper cable management system.

10 SOFTWARE

- A) Software updates, patches, new versions, and new releases on all systems shall not overwrite, alter, amend or impact on the operational system configuration and operational system parameters. All systems shall be able to revert to previous software versions.
- B) The access control system shall be supplied with the required management software and licences for complete system operation.
- C) The access control system software shall provide an intuitive Human Machine Interface (HMI) to guide the user in operating the system.
- D) The access control systems should use strong authentication mechanisms to prevent unauthorized access.

11 MONITORING, MANAGEMENT AND CONTROL SYSTEM

11.1 General Requirements

- A) Local monitoring, management and control of the access control system shall be provided at the relevant operational ATSU that do not have technical support available at the ATSU as defined in Table 1: Locations and Maintenance Centers.
- B) Local monitoring, management and control centres will only be able to manage and provide access to its own ATSU.
- C) Remote monitoring, management and control of the access control system shall be provided at relevant ATSU that also serves as a maintenance centre as defined in Table 1: Locations and Maintenance Centers.
- D) Remote monitoring, management and control centres will be able to manage and provide access to its own ATSU as well as the ATSU's reporting to it.
- E) A centralized monitoring and management capability shall be established at the ATNS HO.
- F) The centralized monitoring and management centre will be able to manage and provide access to all ATSU's.
- G) The centralized monitoring and management centre will interface with the access control, CCTV and alarms systems that will be deployed at all the ATNS ATSU and other ATNS remote sites.

11.2 Hardware Requirements

11.2.1 Local Operator Position

- A) All local operator positions shall be provided with a desktop for enrolment of new users consisting of a 20-inch All-in-one PC.
- B) Local operator positions shall be provided with a Biometrics enrolment reader/writer and Card printing machine.
- C) The 20-inch All-in-one PC at least shall have the following minimum specifications:
 - a. Intel Core i7 or equivalent
 - b. 4GB GDDR5 integrated Graphics card
 - c. 16GB DDR4 RAM
 - d. 1TB SSD
 - e. USB Keyboard + Mouse
 - f. Windows 10 Pro (Licence to be provided by ATNS)
 - g. Built-in Ethernet Port

11.2.2 Remote Operator Position

- A) All remote operator positions shall be provided with a desktop for enrolment of new users consisting of a 20-inch All-in-one PC.
- B) Remote operator positions shall be provided with a Biometrics enrolment reader/writer and Card printing machine.

- C) The 20-inch All-in-one PC shall have at least the following minimum specifications:
- a. Intel Core i7 or equivalent
 - b. 4GB GDDR5 integrated Graphics card
 - c. 16GB DDR4 RAM
 - d. 1TB SSD
 - e. USB Keyboard + Mouse
 - f. Windows 10 Pro (Licence to be provided by ATNS)
 - g. Built-in Ethernet Port

11.2.3 Centralized Operator Position

- A) There shall be two PC's provided for the establishment of the centralized monitoring and management capability. One PC shall be deployed at the ATNS HO. The second PC at a location to be advised.
- B) The centralised operator positions shall be provided with a desktop for enrolment of new users consisting of a 20-inch All-in-one PC.
- C) Centralised operator positions shall be provided with a Biometrics enrolment reader/writer and Card printing machine.
- D) Each PC will be provided with three (3), 32" monitor screens. The PC shall cater for the following functionality:
- a. Access monitoring and management
 - b. CCTV Control position
 - c. Alarm Monitoring
- E) The PC shall have the following minimum specifications:
- a. Intel Core i7 or equivalent
 - b. 4GB GDDR5 integrated Graphics card
 - c. 16GB DDR4 RAM
 - d. 1TB SSD
 - e. USB Keyboard + Mouse
 - f. Windows 10 Pro (Licence to be provided by ATNS)
 - g. Built-in Ethernet Port

CHAPTER 6: ENVIRONMENTAL AND SUSTAINABILITY REQUIREMENTS

12 ENVIRONMENTAL AND SUSTAINABILITY REQUIREMENTS

The supplier of the system will be required to demonstrate social and environmental responsibility in terms of:

- Materials and Product Lifecycle
- Waste handling and disposal
- Energy Efficiency

12.1 Materials and Product Lifecycle

- A) **Sustainable Procurement:** As part of the tender process the supplier will be required to indicate what measures are taken to address sustainability impacts of their product lifecycle i.e. manufacturing process of the equipment purchased must demonstrate social and environmental responsibility.
- B) **Material safety:** Materials used shall be harm free (e.g. non-flammable and non-explosive) and therefore composition of materials will not in any way be a risk to human health, should a person be in contact with these materials.

12.2 Waste Handling and Disposal

- A) The utilisation of resources and disposal of the existing equipment and waste during various stages of the project shall take into consideration and adhere to the ATNS Integrated Waste Management Policy. Certificates of disposal shall be submitted to ATNS.
- B) The applicable national regulations (including the section 28: Duty of care, of the NEMA) and environmental bylaws shall be adhered to.

12.3 Energy Efficiency

- A) As part of the tender process the supplier will be required to provide the most energy efficient equipment available and details on the power consumption for each component of the system shall be provided.
- B) The supplier shall furthermore indicate what energy efficiency measures were considered in the equipment, and associated infrastructure selected and proposed.

CHAPTER 6: PROJECT MANAGEMENT REQUIREMENTS

13 PROJECT MANAGEMENT PLAN

13.1 Draft Plans

- A) The project management plan (PMP) shall encompass draft plans that will be refined as necessary during the execution of the contract.
- B) These aspects/plans shall include:
 - Project Management
 - Resource management
 - Risk management
 - Quality management
 - Installation, Transitioning and Commissioning; and
 - Environmental Management Programme

13.2 Project Management

13.2.1 Project Overview

- a. The PMP shall provide a project overview that will clearly define the project scope and overview. The deliverables of the project shall be documented as part of the project overview.

13.2.2 Project Schedule

- a. The PMP shall incorporate a Work Breakdown Structure (WBS) and Master Project Schedule (Gantt Chart).
- b. The Work Breakdown Structure (WBS) shall illustrate the breakdown of the project scope into activities that can be managed, monitored and measured in terms of duration, cost and resources.
- c. The Master Project Schedule shall include all project activities needed to be undertaken for the successful completion of the project scope of works and shall also include the WBS.

13.3 Resource Management

- A) The PMP will capture the project organization with associated responsibilities for each team member.
- B) The contractor shall employ a qualified and experienced project team with clearly defined roles and responsibilities for carrying out the project tasks.

13.4 Risk Management

- A) A risk management plan that outlines how project-related risks will be identified, assessed and mitigated shall be included. The plan shall further articulate the assessment methodology to be used in quantifying risk ratings attached to each identified risk.

13.5 Quality Assurance and Acceptance

- A) The quality management plan shall detail how quality will be controlled, assured and maintained throughout the lifecycle of the project.
- B) The quality management plan shall also include the quality assurance policy, procedures and relevant accreditations held by the company.
- C) The plan shall highlight the quality assurance activities that will be performed.

13.6 Installation, Transitioning and Commissioning

- A) The Installation, Transitioning and Commissioning (ITC) plan shall detail how the installation, transitioning and commissioning of the systems will be performed to meet the project's technical, operational, contractual and performance requirements. This plan shall include an acceptance matrix, which identifies all deliverables, and the methods of testing proposed to demonstrate compliance.
- B) All configuration and integration management activities (regarding hardware, software and documentation version changes) to meet the project's technical, operational, contractual and performance requirements shall be included.
- C) The contractor shall make provisions for some installation activities to be performed outside normal office hours to ensure that there is no interference or distractions on the ATNS personnel performing air traffic control activities.

13.7 Environmental Management Programme

- A) The Environmental Management Programme (EMPr) shall be based on identified activities which may have potential or actual environmental impacts before the commencement of work in accordance with the National Environmental Management Act (No. 107 of 1998) and associated environmental legislation as well as ATNS' environmental specifications. The environmental management programme shall address, without limitations, the following:
 - a. Energy efficiency pertaining to all aspects of the project;
 - b. The use of Environmentally sustainable materials and products; and
 - c. Waste management.

13.8 Health and Safety Management Plan

- A) The Contractor shall comply with the guidelines as contained in APPENDIX A: OCCUPATIONAL HEALTH AND SAFETY REQUIREMENTS.
- B) The Contractor shall prepare a Health and Safety Management plan specific to the project scope and requirements. For the implementation of the project the plan shall cover all envisaged risks related to the supply, delivery, installation and commissioning of the offered systems.

14 SYSTEMS ENGINEERING

- A) The system engineering plan shall be in accordance with IEEE STD 1220-2005 Annex B, where applicable, for the design, manufacture, integration, and testing of the overall system. The system definition shall show detail on, at least the following, where applicable:
 - a. System concept;
 - b. Identified risks;
 - c. Initial project and technical plans;
 - d. Risk management;
 - e. Every single identified subsystem;
 - f. Every single identified interface;
 - g. Every single potential service provider;
 - h. Complete system and product specifications including software specifications;
 - i. Complete interface specifications;
 - j. Complete interface specifications with service providers;
 - k. Human/system interfaces;
 - l. Support issues if any;
 - m. Identified training issues if any;
 - n. Human resources issues if any;
 - o. Data flows with and within the system;
 - p. Identified baselines and proposals for the management thereof;
 - q. Proposed operational, technical and system reviews; and
 - r. Configuration management.

CHAPTER 7: LOGISTIC SUPPORT REQUIREMENTS

15 LOGISTIC REQUIREMENTS

The following logistic support requirements and deliverables shall be addressed.

15.1 Training

- A) Training shall be provided for each user type at each of the locations defined in Table 1: Locations and Maintenance Centers for a minimum of 2 Super Users and 2 Administrators per location.
- B) As the numbers will change over time, the level of training provided to the Super Users shall be such that they will be able to train other / new resources.
- C) Technical training shall be provided to the Engineering Technicians based at the main maintenance centre as define in Table 1: Locations and Maintenance Centers.
- D) The technical training shall include fault finding, root cause analysis and system error reset functionality.

15.2 Warranty

- A) The warranty period for the equipment provided shall be at least 12 months.

15.3 Spares

- A) The recommended spares and quantities that should be kept by ATNS shall be specified and include any in the proposal.

15.4 Support Contract

- A) A maintenance and support proposal for the duration of the specified life of the systems shall be included. Any interventions on the proposed systems that may be required to achieve the stipulated 10-year life span shall be defined and included.
- B) The maintenance and support proposal shall cover the response time, call out rates, escalation rate and all support contact details.
- C) The maintenance and support proposal shall also state how new items/ spares will be costed e.g actual cost or actual cost plus a percentage.
- D) The Contractor shall respond within 24 hours (Tmax) for any system failures.
- E) Should the Contractor not meet the proposed response time, a penalty shall be imposed. Service penalties will be determined by the Actual response time (Tact) per incident and calculated as per the formula below: -

Service penalty = (Tact)(hours)/ (Tmax)(hours) * (Priority factor*)*(10%* next contract invoice value), up to a total maximum of the value of the Agreement per Agreement period where:
Tmax (hours) = corresponding maximum agreed time to respond (arrive at the site).

Note: The penalty only applies to where the response time was exceeded. Priority factors for all types of failures are one (1).

APPENDIX A: OCCUPATIONAL HEALTH AND SAFETY REQUIREMENTS

1 ROLES AND RESPONSIBILITIES

Appointed principal contractors and sub- contractors

Note 1: Most of the roles and responsibilities listed apply to both appointed principal contractors and any sub- contractors. Where some of the listed do not apply to both, then the specific responsibilities will be listed and titled. The principal contractor shall:

- [A] Carry out all duties as listed in section 8, 9 and 10, the various other regulations that form part of the OHS Act.
- [B] Carry accountability and responsibility for the safety and health of their employees and their sub- contractors within their working area, as contemplated by section 37(2) of the OHS Act.
- [C] Shall keep a record of all employees including the sub- contractor employees, including date of induction, relevant skills and licenses and be able to produce this list at the request of the ATNS Project Manager.
- [D] Ensure that all their appointees are made aware of their accountabilities and responsibilities in terms of their appointment and that he/she advice and assist these appointees in the execution of their duties.
- [E] Ensure that the minimum legislative, regulatory and ATNS SHE requirements are complied with on all work sites.
- [F] Compile a SHE (health and safety) file where all relevant health and safety records must be kept for each work site.
- [G] The appointed principal contractor must provide the project manager with a certified copy of his/her Compensation Commissioner's valid letter of good standing before the commencement of work and any future renewal letters obtained during the project for record-keeping purposes. The letter of good standing shall reflect the name of the contractor's company. The nature of business reflected on the issued Logs must be in line with the issued scope of work. Similarly, the appointed contractor must provide the ATNS project manager with all the valid letters of good standing from their sub- contractors.
- [H] Appoint competent staff to perform the project work and ensure that all employees are trained in the health and safety aspects relating to such work and that the employees understand the hazards associated with all other work being carried out on the project.
- [I] Ensure that all employees are conversant with all relevant work procedures and that they adhere to such procedures. Similarly (without removing the appointed principal contractors' responsibilities), ensure that their sub- contractors and their employees are conversant with all relevant work procedures and that they adhere to such procedures.
- [J] Stop his /her employees and any sub- contractors if project work is not in accordance with the safety health and environmental plan or if such work poses a threat to the health and safety of persons or a risk of degradation to the environment.
- [K] Only appoint contractors to do work, if satisfied that the contractor has the necessary competencies and resources to perform the work safely.
- [L] Appoint full-time competent employees in writing to supervise the performance of all specified work throughout the contract period.

Note 2: No work may commence and or continue without the presence of the project manager or project supervisor during performance of the contracted work.

- [M] Appoint a part time safety officer as per project risk.

- [N] Not victimise or dismiss employees, by virtue of the employees divulging health and safety information or suspecting such information has been divulged, in the interests of health and safety requirements;
- [O] Follow a process of disciplinary action if any of their employees or their sub- contractor employees have transgressed any of the requirements of the health and safety specification, safety and health plans, site rules or any other requirements.
- [P] Ensure that pre-task risk assessments are conducted and documented daily and prior to the starting of any new task, irrespective of whether it is a repetitive task or not.
- [Q] Take prime responsibility for all aspects of environmental management associated with the project activity for which they are responsible.
- [R] Principal contractor is required to approve sub- contractor's health and safety plans if they meet all the requirements.
- [S] Ensure that pre-employment, periodic and exit medicals are carried out on their employees. Medical assessments must be conducted by a registered Occupational Health Practitioner. During the pre-employment medical, where employees will be required to work at heights, they will also be required to undergo the required employee physical and psychological fitness examinations.

Note 3: should the appointed principal contractor or his/her sub- contractors entertain visitors on site, they will be held responsible for the provision and wearing PPE.

- [T] Where performing work with the environment, ensure that minimal damage is done and that where an Environment Management Plan is in place, then adhere to the plan.
- [U] Must have a substance abuse program which must be in line with the requirements of the OHS Act.
- [V] Ensure that no alcohol or other intoxicating substances are brought on to, or remains on the work sites.
- [W] Ensure that all equipment and tools used comply with OHS Act requirements with respect to condition, use, care, storage, maintenance, and the management of these;
- [X] Ensure that all incidents are reported and investigated timeously by competent incident investigators.
- [Y] Be involved in all of their sub- contractor's investigations.
- [Z] Establish health and safety committees, hold such committee meetings on all sites, and ensure that sub- contractors participate in their health and safety meetings.
- [AA] Chair their own health and safety committee meetings and record such meetings.
- [BB] Appoint sufficient number of health and safety representatives in terms of legislative requirements and ensure that the sub- contractors appoint health and safety representatives for their work sites.
- [CC] When appointing contractors, advise the ATNS project manager/contract manager in writing timeously and obtain his/her approval prior to them commencing work.
- [DD] Shall keep a record of all employees including the sub- contractor's employees, including date of induction, relevant skills and licenses and be able to produce this list at the request of the ATNS Project Manager.

2 SITE MANAGERS

- [A] Assist the contractor and/or the safety officer in conducting site induction training for new staff and site visitors.
- [B] Communicate to all employees under their control on any hazardous and related work procedures, before any work commences and thereafter, at such times as may be determined by a risk assessment.
- [C] Ensure that the minimum legislative and ATNS SHE requirements are complied with on all work sites.
- [D] Stop any work that is not in accordance with the safety and health plan or if such work poses a threat to the safety and health of persons or a risk of degradation to the environment.
- [E] Ensure that risk-based personal protective equipment (PPE) has been issued and employees wear/use the PPE as instructed.

- [F] Inspect such PPE on a regular basis and record the inspections.
- [G] Ensure that all incidents are reported to the client and are investigated.
- [H] Be involved in all investigations that occur within their area of responsibility.
- [I] Carry out audits and or inspections on their sub- contractors on instructions of their contractor.
- [J] Ensure that employees under their control are conversant with all relevant work procedures and that they adhere to such procedures.
- [K] Ensure that daily or pre-task risk assessments are conducted and documented daily and prior to the starting of any new task, irrespective of whether it is a repetitive task. Ensure that the team are involved in the abovementioned risk assessments.
- [L] Hold tool box talks at the start of each day/ task to discuss health and safety issues as well as confirming the requirements of the daily risk assessments.
- [M] Ensure that all appropriate precautions are taken to protect persons (visitors, members of the public, and other contractors) present at work or in the vicinity of a project site against all risks that may arise from such site.
- [N] Ensure that no alcohol or other intoxicating substances are brought on to, or remains on, the premises / work sites and that no employee remains on site if he/she is under the influence. Furthermore, report such instances to contract management.
- [O] Ensure that all equipment and tools used on site comply with OHS Act requirements with respect to condition, use, care, storage, maintenance, and the management of these.
- [P] Not victimise their employees by virtue of their employees divulging health and safety information or suspecting such information has been divulged, in the interests of health and safety requirements (reference – section 26 of the OHS Act).
- [Q] Where any work is performed which involves the environment, ensure that minimal damage is done to the environment and that where an Environment Management Plan is in place, then the plan adhere to the plan.
- [R] Stop any employee or contractor from performing work which is not in accordance with the appointed principal contractor's and or sub- contractors health and safety plan which poses a threat to the health and safety of persons.

3 CONTRACTOR SITE SUPERVISOR

The contractor shall be:

- [A] Be competent to perform the required supervisory tasks; have attended a supervision or legal liability competent training from SAQA approved training provider.
- [B] Ensure their employees and all sub- contractors comply with the required statutory and ATNS requirements.
- [C] Ensuring a Safe working environment is established and maintained by the contractor for the elimination of unsafe acts by all people whilst on the project site.
- [D] Conduct site Inspections for compliance to SHE requirements and compiles the relevant inspection reports.
- [E] Participate in all sub- contractor incident investigations.
- [F] Participate in the appointed contractors emergency preparedness planning.
- [G] Ensure that their own employees and those of any sub- contractor are competent to perform the tasks assigned.
- [H] Issue site instructions on behalf of the appointed contractor where and when the sub- contractors deviate from safety requirements.
- [I] Assist the appointed contractor with the handing over process, in particular the SHE file and relevant documentation.

4 CONTRACTOR HEALTH AND SAFETY OFFICER

The officer shall be:

- [A] The Safety officer must be suitably qualified with recognised safety qualification.
- [B] Must be part time on site as per project risk.
- [C] Promote a SHE culture within the organisations involved in the project / contract.
- [D] The contractor's safety and health officer shall assist in the control of all health and safety-related matters on the sites.
- [E] Be involved in the developing the project SHE plan and SHE policy.
- [F] Ensure that this SHE specification is adhered to by his/her appointed contractor and is submitted to any sub- contractors.
- [G] Conduct inspections of all work sites for the duration of the project.
- [H] Be involved in the organisations incident investigations when required.
- [I] Conduct organisational, site and visitor induction training.
- [J] Stop any employee or contractor from performing work which is not in accordance with the appointed contractor's and or sub- contractors health and safety plan which poses a threat to the health and safety of persons.

5 SECTION 37(2) (LEGAL) AGREEMENT

- [A] A section 37(2) agreement must be signed between ATNS Contract Manager/Project Manager and the appointed principal contractor at the time of awarding the contract. The appointed contractor must ensure that a section 37(2) agreement is compiled between the appointed contractor and all their sub-contractors for the contract. This agreement must be submitted as part of the safety file package.

6 SITE ACCESS REQUIREMENTS

The Safety file package must be submitted to the SHE department **2 weeks** before the agreed project commencement date.

- [A] Before the successful Contractor commences with any work, the ATNS Project Manager/Contract Manager shall ensure that.
- [B] A copy of the SHE Specification document is in the possession of the responsible person of the contracting company.
- [C] The responsible person of the contracting company and the ATNS project manager/contract manager have signed the ATNS section 37 (2) agreement.
- [D] The appointment of the Appointed principal Contractor have been concluded and signed by the Contractor and Appointed Project Manager. A task specific baseline risk assessment must be part of the SHE Plan and accompanied by a risk assessment procedure applied. A monitoring and review plan must form part of the baseline risk assessment
- [E] Where a Sub Contractor(s) is appointed by the Appointed Contractor, the Contractor supplies the applicable ATNS SHE specifications to the Sub Contractor(s).
- [F] The SHE department shall assess and give written feedback to the appointed principal contractor. The safety file shall be approved in a form of a written letter from the SHE department.

7 COSTING FOR SHE WITHIN THE PROJECT

- [A] The SHE costing must be itemised and must take into consideration the scope of work. The appointed principal contractor must make sure that he/she made adequate provision for the cost of health and safety measures during tendering process.

8 RISK ASSESSMENT (REFER SEC 8 & 9 OF THE OHS ACT)

- [A] The appointed principal contractor shall develop a Risk Assessment in line with Section 8 (2)(d) of the OHS Act. Emerging risks and hazards must be managed during the duration of the contract. This means that if there are significant changes to a process or activity, or any new process, then these should also be subjected to risk assessment.
- [B] All risks must be rated. Activity based risk assessments shall be conducted by a competent person of the Appointed Contractor.

9 WORKING AT HEIGHT (IF APPLICABLE)

Persons may only work from a fall risk position if a site-specific fall protection plan is in place and correctly implemented and consists of the following:

- [A] All appointments for the fall protection plan developer and implementer are in place.
- [B] Baseline risk assessment, which is specific and incorporates the working at height risk assessment, as well as the site-specific risk assessment, has been completed for the work to be conducted.
- [C] Safe working procedure/task analysis and work instructions, approved by a competent person, are in place.
- [D] The procedure addressing the inspection, testing and maintenance of all fall protection equipment is in place.
- [E] A fall rescue plan detailing the necessary procedure, personnel and suitable equipment required to affect a rescue of a person in the event of a fall incident to ensure that the rescue procedure is implemented immediately following the incident. Appropriate training, as determined by the risk assessment, has been provided.
- [F] Appropriate height safety equipment and personal protective equipment have been issued to the individual.
- [G] There are equipment inspection procedures and up-to-date inspection records.
- [H] Individuals are medically fit to work at height, and records of this are kept.
- [I] A site-specific risk assessment is performed.
- [J] Fall Protection Planner/s shall have training from an accredited service provider that consists of US 229994 & US 229998 as a minimum.
- [K] Working at height training shall only be done by a SAQA approved training provider based on US 229998. The training provided is only for ascending and descending from access ladders and working on elevated platforms.
- [L] All rope access technicians shall have SAQA training which is in accordance with the institute for working at heights (IWH) US 229998, Unit standards for Rope access Technicians i.e. (Level one – US 229998 and US 230000) (Level Two – US 229996) (LevelThree - US 229997 and US 230001) for rope access.
- [M] While work is in progress, adequate warning signs and/or barricades shall be used in all areas where there is a risk of persons being injured by materials or equipment falling from the work area. Barricades should be continuous and easily visible.
- [N] A drop zone shall be established with appropriate warning signs and barricading, warning personnel below of workers above and potential falling objects.

10 ROOF WORK

- [A] Where roof work is to be performed, a risk assessment must be carried out prior to climbing on to the roof to determine the hazards (stability, suitability strength etc.), consequences of climbing and control measures that are required.

11 HOUSEKEEPING AND ORDER

- [A] The appointed principal contractor shall maintain a high standard of housekeeping for the duration of the project.
- [B] Prompt disposal of waste materials, scrap and rubbish is essential.
- [C] Materials/objects shall not be left unsecured in elevated areas –falling objects may cause serious injuries/fatalities.
- [D] Nails protruding through timber shall be bent over or removed so as not to cause injury.
- [E] All packaging material including boxes, pallets, crates, etc. to be removed from the work area immediately.
- [F] On completion of his / her work, the contractor is responsible for clearing his / her work area of all materials, scrap, temporary buildings and building bases to the satisfaction of the client/agent.

12 TOOLS AND EQUIPMENT

- [A] The appointed principal contractor shall ensure that all tools and equipment are identified, safe to be used and is maintained in a good condition.
- [B] Contractor shall ensure that all tools and equipment are listed on an inventory list, be regularly inspected at least monthly or as required by legislation and risk assessments.
- [C] The equipment should be numbered or tagged so that it can be properly monitored and inspected.
- [D] All tools that emit noise shall be clearly marked with the emitted noise levels
- [E] Where applicable, tools and equipment must have the necessary approved test or calibration documentation prior to being brought onto the project and the records shall form part of the SHE plan. Maintenance calibration shall be undertaken in terms of the manufacturer's requirements.
- [F] Where defective tools and equipment's are identified, such tools and equipment shall be removed out of site immediately, locked away to prevent further use until such time as the tool or piece of equipment has been repaired.
- [G] Contractor shall ensure that the appropriate records are kept for all tools and equipment used on the project. Such tools and equipment's shall be subjected to regular inspections.

13 HAND TOOLS

- [A] All hand tools (hammers, chisels, spanners, etc.) must be recorded on a register and inspected by the supervisor on a monthly basis as well as by users prior to use.
- [B] Tools with sharp points in tool boxes must be protected with a cover.

14 MEDICALS

Note: ATNS will only accept medical surveillances conducted by an Occupational Health Practitioner who holds a qualification in occupational health.

- [A] Appointed principal contractor must ensure that his/her employees and sub- contractor employees have a medical surveillance program whereby their employees under go entry, periodic and exit medical fitness examinations.
- [B] Medical fitness certificates shall be renewed annually for employees who are working on site. This shall be maintained until completion of the contract.
- [C] The appointed contractor must ensure that his / her employees and sub- contractor employees have undergone pre-entry medical examination before starting work on the contract.

15 PERSONAL PROTECTIVE EQUIPMENT REQUIREMENTS

- [A] Appointed principal contractor shall comply with the requirements of GSR 2 of the OHS Act.
- [B] The risk based PPE matrix must be compiled detailing the types of PPE that is required to be issued to employees performing the respective tasks.
- [C] Where there are unusual instances where particular activities require additional type of PPE, then a risk assessment must be conducted where such PPE requirements will be identified and the issuing be carried out.
- [D] Appointed contractor shall ensure that his/her visitors wear and use the correct PPE whilst on worksites.
- [E] Where PPE is required and visitors are not in possession of, then it is the individual contractor's responsibility to provide the PPE.
- [F] All PPE purchased and used by all contractor employees including visitors must comply with the relevant SANS standards.
- [G] Where deemed as a requirement, then high visibility vests shall be worn.

16 INCIDENT INVESTIGATION

- [A] All incidents shall be investigated in terms of OHS Act General Administrative Regulations 8 and 9, using ATNS OHS manual as a reference, and where injuries as contemplated in sections 24 and 25 have been sustained, be reported to the Department of Labour.
- [B] Appointed principal contractor must develop their own incident management procedure.
- [C] The appointed Contractor shall use the standard General Administrative Regulation Annexure 1 "Recording of an Incident" form for all incident investigation reports.
- [D] The objective of incident investigation should not only be a legal requirement but should establish why and how the incident occurred and find out the real root cause of the incident and to decide on precautionary measures that are required to address the root cause to prevent any further recurrences of the same or similar incidents.

17 EMERGENCY MANAGEMENT

- [A] The appointed principal contractor must develop his/her own emergency management procedure detailing the possible emergencies that could arise due to the activities that he/she conducts at ATNS premises and how he/she will evacuate the area in case of any emergency.
- [B] Periodic emergency drills must be undertaken to test the effectiveness of the plan. This must be recorded and provided on request.

18 NON-CONFORMANCE AND COMPLIANCE

- [A] Any non-compliance to any health and safety requirement in this SHE specification is subject to discipline.

- [B] Should the contractor fail to provide adequate PPE to their employees for the tasks being performed and/or to visitors; failure to enforce the wearing of such PPE will be viewed as a transgression of the legislative and ATNS requirements.

19 COID

- [A] The appointed principal contractor and all his/her appointed sub-contractors shall be registered with an appropriate employment compensation commissioner and have available a valid letter of good standing (LoG) from such commissioner. The obligation lies with the contractors to ensure that the LoG remain valid throughout the contract period. A copy of the LoG must be filed in the contractor SHE files.

20 STATUTORY APPOINTMENTS

- [A] For the duration of the contract, the appointed principal contractor and all appointed contractors shall appoint competent employees who will meet the requirements of the OHS Act. Where appointments are made, contractor shall ensure that the appointees have been suitably trained and or informed of their responsibilities before getting them to accept such appointment. The relevant statutory appointments shall be made in accordance with the requirements of the OHS Act which includes the requirement of a competent person being appointed in the relevant roles.

21 SHE COMMUNICATION SYSTEMS

- [A] Principal Contractor must develop a communication strategy/plan outlining how he/she intends to communicate SHE issues to his/her staff, the mediums he/she will employ and how he/she will measure the effectiveness of the SHE communication.

22 GENERAL REQUIREMENTS

All employees conducting UPS electrical works must comply with the following:

- [A] Employees must be trained and competent to work with electricity.
- [B] The appointed contractor must submit method statements/work instructions indicating how UPS electrical work will be done safely.
- [C] A detailed baseline risk assessment pertaining to UPS electrical scope of work shall form part of the safety file package. (this is a detailed document indicating all the associated activities and identifying hazards and associated risks)
- [D] Part of the baseline risk assessment must detail the control measures to be implemented as per the hierarchy of controls, the risk assessment procedure must have a monitoring and review plan.
- [E] All risk assessments must be compiled by competent person, who has a certificate of competency for Risk Assessment from SAQA approved training provider.
- [F] A task specific risk assessment must be conducted for all UPS electrical activities.
- [G] The principal contractor must adhere to the Occupational Health and Safety Act, Disaster Management Act, other relevant legislations including the ATNS occupational health and safety policy and Environmental Policy and Waste Management Procedure
- [H] Where applicable, the principal contractor shall provide suitable notice boards that will be mounted outside the works area when they begin work. Such signboards shall indicate the service provider's name, contact details of the responsible site agent, the name/number of the building they are working on, and a short description of the works that are being performed there.

- [I] In addition, warning notices and other barricade will be erected to keep the public away from the locations where there is work being performed. It is the principal contractor's responsibility to ensure that all persons are informed of the hazards associated with the works and to keep persons outside of the working areas from a health and safety perspective
- [J] Warning notices shall be made of non-corrodible non-deteriorating material, preferably plastic.
- [K] The principal contractor shall only utilize equipment that is safe and in good serviceable order. No work will be undertaken without using the appropriate and correct tools for the purpose.
- [L] Old equipment that is removed from site shall be disposed of safely, and in an environmentally safe and responsible manner as per ATNS waste procedure.

23 SITE ESTABLISHMENT

- [A] Principal contractor's site facilities should be managed at all times.
- [B] Prior to establishing a project site, a site plan is required to be drawn listing position of all buildings, amenities, storage and stacking areas. The appropriate colour coding and demarcation of storage and stacking areas must be carried out.
- [C] Where, working in the field and material is stored at the work sites, then proper stacking and storage shall be carried out.
- [D] When compiling the site plan, cognisance must be taken to the establishment of the site camp, ablution facilities and dining area in relation to one another and away from stacking and storage areas.
- [E] The principal contractor together with the client must conduct a Risk assessment for site establishment.
- [F] ATNS does not guarantee the provision of a storage to accommodate the service principal contractor's tools and equipment.
- [G] If such site establishment/storage is not be available, the principal contractor will be responsible for establishing and disestablishing its own storage facility, the location of which must be agreed with ATNS (if established within ATNS premises).
- [H] The principal contractor may not make use of the site for residential purposes, and no workers will be permitted to set up sleeping quarters on ATNS premises.
- [I] The principal contractor may display discrete signage to indicate the ownership of plant or equipment only and as required in order to comply with health and safety requirements.
- [J] The principal contractor shall clear up all site establishment after use, and reinstate the same to the state prior to occupation, at the service provider's cost.

24 SHE FILE

- [A] A SHE file means a file or other record in permanent form, containing the information about the safety and health management system during construction and all information relating to the post-construction phase after handover to the client, so that the client can maintain the works in a healthy and safe way.
- [B] The principal contractor is required to keep a SHE file on every project site. If there is more than one site per project, a file per site shall be kept at that site. Principal contractor may keep additional files at his/her head office as additional records. The SHE file shall be maintained by the principal contractor on his/her construction sites and shall be available on request for audit and inspection purposes.
- [C] The SHE file shall consist of the requirements in terms of the project's safety specification, the principal contractor's safety and health plans.
- [D] The sequence of filing the documentation must be kept in the same sequence as listed in this SHE specification and the SHE plan.

- [E] Each record shall be separated by partitions to afford easy identification and access. Each partition must be labelled.
- [F] On completion of the work/project, the principal contractor must hand over a consolidated health and safety file to the project manager. The principal contractor must also hand over all drawings, designs, lists of materials used, and other applicable information about the completed structure, as well as the list of subcontractors, the agreement, and the type of work completed.
- [G] In case where the project is extended, should the documentation in the SHE files become cumbersome, the older documentation must be archived in boxes which shall be correctly labelled and be available for auditing purposes. The archived documentation must be handed over at the completion of the project.

25 SHE FILE

- [A] A SHE File shall be submitted as per the Occupational Health and Safety Act No. 85 of 1993, requirements for approval by ATNS SHE department before any construction work may commence at the site. The draft SHE File to be submitted shall address the minimum requirements of the Occupational Health and Safety Act No. 85 of 1993 as listed below. After contract award, the detailed SHE File shall be available on site for easy access.

Table: Minimum Requirements for a SHE File

No	Item	Included in Draft SHE File	Comments
1.	Health and Safety Policy (signed)	Yes	
2.	Department of Labour - Valid Letter of Good Standing. (COID)	Yes	
3.	Public Liability Insurance Certificates (Valid)	Yes	
4.	Scope of Work including the Company Organogram, resource allocation and individual OHS responsibilities	Yes	Based on proposal offered
5.	Method Statements	Yes	Based on proposal offered
6.	Notification of Construction Work (Where Applicable)	Yes	Completed form and signed for transmission to DoL after contract award and completion of SHE File
7.	OHS 37(2) Mandatory Form Agreement between ATNS and appointed principal Contractor	Yes	Completed form where possible. Agreements will be included after contract award and completion of SHE File
8.	Mandatory Agreements – Between Principal Contractor and Sub-Contractors	Yes	Signed agreement, if any
9.	Legal Letters of Appointments 16.1 – CEO/ 16.2	Yes	All appointment letters must be duly signed.

No	Item	Included in Draft SHE File	Comments
	CR 8.5 – Construction Health and Safety Officer CR 8.1 - Construction Manager CR 8.7 - Construction Supervisor CR 9(1) - Risk Assessor GAR 9(2) - Incident Investigator CR 23 - Construction Vehicle/Mobile Plant Supervisor Appointment for fire equipment inspector - CR 29(h) Appointment for competent first aider - GSR 3(1) Stacking and storage supervisor – CR 28 Appointment for Competent Fall protection implementer - CR 10(1) (a) All other Legal Appointees as applicable		
10	Competency Certificates for all Legal Appointees.	Yes	Valid certificates for all Appointees included
11	ATNS OHS Specifications	Yes	ATNS Specifications to be provided after contract award for completion of SHE File. The appointed contractor must use the SHE specification as a guideline when compiling the SHE file.
12	Health and Safety Plan	Yes	In draft format and must be based on work to be undertaken and in relation to the proposal offered
13	Baseline Risk Assessment	Yes	The appointed principal contractor must developed BRA as per the client issued scope of work
14	Risk Matrix	Yes	It must be part of the BRA

No	Item	Included in Draft SHE File	Comments
15	Medical proof of all Contractor employee's physical and psychological fitness to work ON SITE at the individual airports listed	Yes	Valid medical certificates will be submitted after contract award for inclusion in the SHE File
16	Check Sheets and Registers Personal Protection Equipment Firefighting Inspection First Aid Box and Equipment Hand Tools Hygiene Facilities Housekeeping inspection	Yes	
17	Incident Investigation and Reporting Procedures	Yes	Comprehensive Procedures and all forms for reporting, which also includes environmental reporting
18	Toolbox talks	Yes	List of subject matters applicable and record keeping thereof
19	Emergency Plan	Yes	To be developed after contract award for inclusion in the SHE File
20	Waste Management Plan	Yes	Detailed Waste Management Plan which ensures conformance to the Waste Act provisions and must be approved by the SHE unit
21	Working at heights documents -fall protection plan and working at heights risk assessment (where applicable)	Yes	Fall protection plan must be drafted by a competent person and it must include a rescue plan.
22	Organogram	Yes	The organogram explaining the structure of the company/organization must be part of the SHE file.