

DEPARTMENT OF PUBLIC WORKS

STANDARD TECHNICAL SPECIFICATION FOR THE PREVENTIVE MAINTENANCE, SERVICING AND REPAIR OF FIRE AND SECURITY INSTALLATIONS

SECTION 1

INVITATION TO TENDER

	OFFICE OF THE REGIONAL REPRESENTATIVE DEPARTMENT OF PUBLIC WORKS PRIVATE BAG X
Gentlemen	
Tenders are hereby invaddressed to this office	ited for the under-mentioned work. Tenders shall be placed in a sealed envelope and and endorsed:
Tender for	
and must be received n	ot later than 11:00 on

The work consists of providing all the labour, material, workmanship and machinery, and all other items which may be necessary in, and for the execution of the work and services described in the Articles of Agreement hereto.

The acceptance and adjudication of the Tender is subject to the Regulations of the State Tender Board and the Department does not bind itself to accept the lowest or any Tender.

The written acceptance of this Tender by the Department shall constitute a binding contract.

The Tender shall be supported by a resolution authorizing the person signing the Tender to act in that capacity.

The Tender shall remain valid for a period of 60 days after the closing date of Tenders.

INSPECTION OF SITE AND EQUIPMENT

Before tendering, Tenderers shall visit the site and make themselves conversant with the equipment to be restored, and/or serviced and maintained.

It is a condition of contract that Tenderers shall agree to apply the same prices for similar installations in use by other Government Departments in the same area, should they require similar restoration, and/or servicing and maintenance.

Yours faithfully,

REGIONAL REPRESENTATIVE

SECTION 2

DEPARTMENT OF PUBLIC WORKS

REPUBLIC OF SOUTH AFRICA

CONTRACT FOR THE PREVENTIVE MAINTENANCE, SERVICING AND REPAIRS OF THE INSTALLATION(S) DESCRIBED IN SECTION 4 OF THIS AGREEMENT.

ARTICLES OF AGREEMENT entered into between the government of the Republic of South Africa represented herein by the Regional Representative for the Department of Public Works, (hereinafter referred to as the "REGIONAL REPRESENTATIVE"), having been duly authorized to do so, of the one part, and

(hereafter referred to as "THE CONTRACTOR" of the other part.

WHEREAS the Government is desirous of arranging for the preventive maintenance, servicing and repair of the installation(s) mentioned in the accompanying Schedule in Section 4, which shall be read as forming part of this agreement; and

WHEREAS the Contractor has agreed to undertake the required preventive maintenance, servicing and repairs of the installation(s) mentioned in the accompanying Schedule in Section 4.

NOW IT IS HEREBY AGREED AS FOLLOWS:

- 2.1 The Contractor shall –
- 2.1.1 Undertake the required preventive maintenance, servicing and repair of the installation(s) detailed in the Schedule in Section 4, in accordance with the specifications in Section 3.

Contract period: 36 months from the date of Letter of Acceptance.

- 2.1.2 Inform the Regional Manager at least 7 days before servicing as to when the installation(s) will be serviced, so as to enable the Regional Representative to arrange for inspections if considered necessary.
- The Form of Tender, PW 210, annexed hereto shall be signed and witnessed and all information required in the Tender and Appendices thereto filled in by the Tenderer. It shall be accompanied by the General Conditions of Contract, Specification, Schedule of Quantities and Appendices referred to in the Condition of Tender PW210 fully priced in the currency of the Republic of South Africa to show the amount of the Tender inclusive of all VAT, Regional Services Council and other relevant obligations. The Appendices to the Tender and applicable Schedules shall be completed and signed where applicable.
- The Tender shall be signed by a person authorized to do so. A joint venture submitting a Tender, shall be duly registered by the tendering organization and authenticated by a Notary Public or other official deputized to witness sworn statements, in which is defined precisely the conditions under which the joint venture will function, in this period of duration the persons authorized to represent and obligate it, the participation of the several firms forming the joint venture, and any other information necessary to permit a full appraisal of its functioning.
- 2.4 The Tender shall be submitted in accordance with instructions given in the Additional Conditions of Tender, PW 224 (M), annexed hereto.

- 2.5 The Tenderer shall allow in the Tender for all labour, material, construction plant, temporary works and everything else necessary for the execution and completion of the Works in accordance with the Tender documents.
- 2.6 No alteration shall be made in the Tender, Schedule of Quantities or other documents and the Tenderer shall be deemed to have complied entirely with the terms of the Tender documents.
- 2.7 All recipients of the Tender documents (whether a Tender is submitted or not) shall treat the details of the documents as confidential and secret.
- 2.8 The Department will not be responsible for or pay for any expenses or losses which may be incurred by any Tenderer in the preparation of the Tender or in visiting the Site in connection therewith.
- 2.9 Tenderers should note and take account of the nature of the site as no claims for additional expenses due to the nature of the site will be considered during the contract stage.
- 2.10 The Tenderer shall be responsible for making arrangements with the Officer in charge of the site or building regarding the availability of the installation to the Tenderer for inspection for the purpose of preparing his Tender.

The appointed Contractor shall be responsible for making similar arrangements for the purpose of Maintenance, Servicing and Repairs. In the event of the Contractor failing to make such arrangements, admission to the site may be refused by the Officer in charge and the Regional Representative will not be responsible for any additional costs which the Contractor may incur by such refusal.

- 2.11 Tenderers are warned that should their Tender include any conditions or qualifications at variance with, or in addition to, the conditions embodied herein, such Tenders will be regarded as ineligible and shall be rejected.
- All work carried out by the Contractor or his staff, and all goods to be supplied shall comply with the requirements of the Occupational Health and Safety Act (Act 85 of 1993) and all regulations made thereunder, as amended and SABS. Code 0400-1990 and all regulations made thereunder, wherever applicable. The Contractor shall report in writing to the Regional Representative any contraventions of the Act and Code as far as the installation as installed and operated is concerned.

2.13 Use of sub-contractors

The Contractor shall not be permitted to make use of a subcontractor on this contract except in the case of specialized services and then only if prior written permission has been obtained from the Regional Representative.

- 2.14 The Contractor, who is required to carry out any work or render any service at the site of the Works, shall comply with all relevant statutory enactments and exonerate the Department from any liability whatsoever.
- 2.15 By the submission of a Tender, the Tenderer shall be deemed to have acknowledged that he has satisfied himself before tendering as to the correctness and sufficiency of his Tender to cover all his obligations under any Contract that may result from this Tender. Should anything which is usually or necessarily supplied with goods of the nature of that forming the subject of this Tender or which may reasonably be inferred as being necessary be omitted from either the Drawings or the Specification, the successful Tenderer shall supply or execute the same as if it had been particularly specified or shown without any claim for extra payment.

- 2.16 The Department reserves the right to inspect the Tenderer's and his Suppliers' works to assess calibration, testing, storage and handling facilities to assure itself of the capabilities of the Tenderer to perform in accordance with the Specification and delivery requirements of the Tender.
- In the event of failure of the Contractor to maintain and/or repair any installation to the satisfaction of the Regional Representative, the latter reserves the right to make any arrangements necessary or expedient in regard to said maintenance and/or repairs to any installation appearing in the Schedule in Section 4 attached hereto, and the Contractor shall be liable to the State for payment of any additional expenditure thereby incurred, as well as for payment of damages which the State may have suffered as a result of the Contractor's default or negligence.
- In the event of it becoming evident that there is any deterioration or defects, in part or as a whole of the system or systems to be maintained under this contract, especially towards the end of the maintenance contract period, such a deterioration or defect shall be rectified and made good by the Contractor. Failure to do so, either the incoming Contractor or others will do such rectifications and the cost thereof shall then be for the account of the outgoing Contractor.
- In the event of the Contractor having committed any breach whatsoever of the terms and conditions hereof, the Regional Representative shall, on behalf of the State, be entitled to give the Contractor fourteen (14) days written notice, requiring the Contractor to remedy such breach, and if the Contractor shall thereafter continue to be in breach, the Tender Board shall thereupon have the right forthwith to declare this agreement cancelled without any further notice thereof to the Contractor, and such cancellation shall in no way prejudice any claim which the State may then or thereafter have against the Contractor for any damages and breach of any of the terms and conditions thereof.
- 2.20 All notices or processes which may be necessary to be given to, or serve upon, parties in terms hereof or other wise, shall be deemed to have been validly served if sent by registered post addressed to the parties at the premises herein described, or if delivered to such premises by hand.
- **2.21** The Department declares its domicilium citandi et executandi to be:

Department of Public Works, Private Bag X	
Tel. No	Fax No
and the Contractor declares its dom	nicilium citandi et executandi et executandi to be:

2.22 All costs of, and incidental to, the preparation and stamping of this contract shall be paid by the Contractor.

2.23 Variation of extent of contract

The Regional Representative reserves the right to add to, or to delete from the list of installations and/or equipment in Section 4 during the currency of this agreement. Should an agreement not be reached on prices for additions the Department reserves the right to execute the additional work by any other means

SECTION 3

SPECIFICATIONS

3A PROJECT SPECIFICATION:

3A.1 General Description of Works

This contract comprises a comprehensive preventive maintenance service entailing regular testing and inspections of the equipment described in the Schedule in Section 4 at specific intervals, and consequently carrying out routine and breakdown maintenance. In the event of failures, the Contractor shall do all the necessary repairs and re-commission the equipment to full working order.

The work shall include:

- ? Restoration of the system, where required
- ? Routine preventive maintenance
- ? Corrective maintenance
- ? Breakdown maintenance
- ? Repair and replacement of spare parts
- ? Maintenance of equipment records and inventory control systems
- ? Updating of computer software
- ? Training

Control systems, as may be deemed necessary, shall be provided by the Contractor to ensure efficient performance and ease of internal and external auditing.

The Contractor shall in addition to his own personnel, also be required to provide his own workshop, tools, transport and test equipment as well as housing and offices for his personnel and all other facilities deemed necessary by him.

The client will not purchase any of the above at the conclusion of the contract. The price tendered for the restoration and maintenance of the system shall include the above items as well as all other costs for spares and consumables needed in order to execute the work in accordance with the Specifications.

3A.2 General Description of the Site

The components comprising the systems covered by this contract are listed in ANNEXURE "A" of the Schedule in Section 4. All systems are existing.

3A.3 Site facilities and services available

For Tender purposes the Tenderer must assume that no site accommodation or services are available.

Site accommodation and services, as applicable at the site, shall be established by the Contractor in negotiation and consultation with the User Department and Regional Representative once the contract has been awarded.

3B DETAIL TECHNICAL SPECIFICATION FOR THE PREVENTIVE MAINTENANCE OF EQUIPMENT LISTED IN SECTION 4 OF THIS SPECIFICATION

3B.1 SCOPE OF WORK

The contract covers the repairs necessary to restore the fire protection, security and building management systems in buildings, at the site as specified in the Schedule in Section 4, to their original state and for maintenance thereafter. The contract period shall be 36 months.

The systems are already installed and in operation.

The fire and security systems included in this contract comprise at least the following equipment:

- ? Valves
- ? Solenoid valves
- ? Piping and hangers
- ? Halon and CO2 nozzles
- ? Odorizes
- ? Halon and CO2 zone status units
- ? Smoke and fire doors and locking mechanisms as per the Standard Specifications for Security Equipment
- ? Ionization detectors
- ? Heat Detectors
- ? Alarm bells
- ? Alarm sirens
- ? Breakglass units
- ? Temperature sensors
- ? Humidity sensors
- ? Microprocessor controlled interface units
- ? Integrated computer system
- ? Fire control panels
- ? Battery chargers and sealed lead/acid batteries
- ? UPS (Uninterrupted Power Supply)
- ? Fixed halon and CO2 system
- ? Fire detection systems
- ? Evacuation systems
- ? Technical alarms
- ? Breathing apparatus sets
- ? Security equipment
- ? Motion detectors
- ? C.C.T.V. system
- ? Radio/telephone links to Fire Stations
- ? Fire telephones
- ? All wiring
- ? Components, sensors and input/output devices connected to the above mentioned systems

The information supplied in this Section is given in good faith by the Department. The sole purpose of this information is to enable the prospective Contractor in assessing the scope of the works.

The Tenderer shall be deemed to have acquainted himself with the exact information and scope of the works, and full responsibility of its accuracy rests with the Tenderer. Standard Specifications for these systems are obtainable from the Director- General or Regional Representative.

The Tenderer may conduct any additional test, which he may deem necessary. The Department's prior written permission must, however, be obtained.

3B.2 GENERAL DESCRIPTION OF SYSTEMS

3B2.1 Introduction to the Systems

There is a analogue addressable fire detection system installed in the building. The system collects data from fire detectors and other sensors in technical areas. This data is then fed to the computer and displayed on the monitor. The fire detection system also incorporates a fixed halon system. In event of a fire condition, the signal is relayed to the fire station by means of a radio signal. Technical alarms and controls included in the system comprise airconditioner shut down, generators, chilled water temperature, booster pumps, humidity sensors, cooling fans, water level sensors and water pumps. The access control system comprises booths, card readers, and booms. The C.C.T.V system incorporates motion detection. Perimeter protection is also provided. For emergency communication an evacuation system and fire telephone system are provided.

3B.3 DESCRIPTION OF THE WORK

3B.3.1 General

All maintenance and repairs shall be executed by competent personnel in the most timesaving and effective manner possible.

The Contractor shall be required to keep critical items in stock, at his own cost, in order to keep down-time to an absolute minimum. Faulty items must be repaired immediately and returned to the Contractor's stock holding.

All tools and equipment required to perform repairs and maintenance shall be supplied by the Contractor, and shall remain his property when the contract lapses.

3B.3.2 Definitions of Functions

3B.3.2.1 Restoration of the Systems

This entails a detailed investigation by the Contractor of all items and systems under the contract, identification of defective and inferior components or systems, and the restoration thereof to comply with the Standard Specification and Additional Specification for the installation as applicable at the time of the original installation, as well as later additions to the installation(s) and additional installations.

This restoration shall be executed to the satisfaction of the Regional Representative.

3B.3.2.2 Routine Preventive Maintenance

This entails the tendering of services for diagnosing the deterioration of equipment and the subsequent action to restore the equipment to its correct functional level in the workshop or in the field.

This also entails testing of other equipment not forming part of this contract, i.e. fire dampers, flow switches and other sensors or services monitored or operated by the fire and security equipment. The Contractor shall liaise with other Contractors to meet on site when testing fire and security systems to ensure full operation of the total installation. Any costs arising from these tests shall be borne by the Contractor.

3B.3.2.3 Corrective Maintenance

This entails regular observation of the equipment with the intention of identifying minor breakdowns of the equipment and subsequent action to restore it to its correct functional and operational state.

3B.3.2.4 Breakdown Maintenance

This entails the urgent repair and/or replacement of defective equipment and subsequent action to restore it to its correct functional and operational state.

3B.3.2.5 Repair and Replacement of Parts

This entails the replacement of defective parts and the repair of such defective parts.

3B3.2.6 Additions/extensions to the systems

On request by the Department, the Contractor shall supply the Department with detailed estimates of costs for additions or extensions as indicated by the Department. Should the Department require such additions or extensions to the existing systems to be done by the Contractor, the Contractor will be paid the price per supplier's invoice plus a percentage mark-up indicated in the "SUMMARY". The mark-up shall include all expenses incurred by the Contractor and no additional payments will be made, for example, for transport or labour costs. The Department reserves the right to pay the Contractor only an amount equal to market related prices plus mark-up should suppliers prices be excessive.

3B.3.2.7 Maintenance Equipment Records and Inventory Control Systems

This entails the composition of a complete inventory of equipment and the updating and maintenance thereof.

3B.3.2.8 Training of Personnel

This entails the quarterly training of the User Department's operating personnel to acquaint them with the operation of the systems. This also includes a set of operating instructions, which shall be mounted in the control rooms in the building and which shall be in a location and of a quality approved by the Regional Representative.

3B.3.3 Availability of the system

The availability of the overall system will be calculated as the percentage of time over a period of 30 days within which the overall system is fully operational.

3B.3.4 Management Systems and Procedures

All Tenderers shall submit details of the management system and procedures which they intend to implement at the site for effective control. Any changes proposed by the Department shall be implemented by the Contractor without any additional costs to the Department.

The approved management system and procedures shall be implemented at the site and shall be strictly adhered to during the course of the contract. Should any changes be required to the management system and procedures during the course of Contract, such changes will be discussed and agreed between the Department and the Contractor. The implementation of such changes shall be at no extra cost to the Department.

3B.3.5 Communications

The Contractor's management and maintenance personnel shall be available on a 24-hour basis. The Contractor shall provide an approved system of communication to this effect.

3B.3.6 Maintenance Frequency

Routine maintenance of equipment shall be carried out every three months.

The Contractor shall within 60 days of the commencement of the Contract, draw up, for approval by the Department, a draft master maintenance schedule based on his routine maintenance intervals for the various items of equipment. The master schedule shall be calendar based, that is, normally fixed days.

The master schedule shall also indicate specific training sessions to be provided to the Department's and/or User Department's personnel.

The master schedule shall be revised and refined in the light of experience gained and a copy of each revised master schedule shall be supplied to the Department for approval.

3B.3.7 Logistic Support

The Contractor shall at all times have adequate resources available to perform all functions required of him. Resources shall include labour, specialist expertise, tools, test equipment, consumable material, spare parts, operation and maintenance manuals, drawings, and other documentation to achieve the contract performance guarantee.

3B.3.8 Department's Obligations

The Department or User Department will be solely responsible for operating the systems.

When a fault occurs, the system operators will execute prescribed reset procedures, provided in the control room by the Contractor. In the event that the equipment becomes operational again, the operator will not call out the Contractor, but will log the fault and reset operations in the control logbook. If the equipment remains faulty, the operator will notify the Contractor immediately and will log the incident, and the call-out of the Contractor, in the logbook.

3B.3.9 Contractors Responsibilities

The Contractor shall be responsible, and Tenderers shall allow for in their Tender prices, for the complete maintenance service, i.e. routine preventive and corrective maintenance, breakdown and repair maintenance, repair, replacement and stocking of spare parts.

The Contractor shall carry out inspections and checking of the equipment detailed in the Schedules. Each inspection and test shall be recorded and listed in the quarterly report, giving the date of the inspection and the nature of the test, complete with the names of persons carrying out such tests, and inspection test results. Testing of repaired faulty equipment shall also be reflected in this list.

The Contractor shall provide the operator personnel with written reset procedures, approved by the Department, mounted in the control room. The Contractor shall ensure that the operator personnel is conversant with the systems and reset procedures. Telephone numbers of contact persons shall be provided by the Contractor to the operator personnel.

While the Contractor is on site, he shall also provide refresher training to the operator personnel. The Contractor shall supply the operator personnel with written reset procedures and shall ensure that they are conversant with the system and reset procedures.

The Contractor shall at any time during the contract period, maintain, and repair or replace, faulty equipment upon receipt of an instruction from the Department, within the Repair Time as defined in paragraph 3C.3, at no additional cost to the Department.

The Contractor shall restore or repair the equipment to the original operational condition, recalibrate and re-commission the equipment on completion of each maintenance service carried out.

The Contractor shall rectify any fault condition of which he becomes aware, even if it has not been reported by the user.

Such rectification's shall also be logged and listed in the Quarterly Report.

The information of the system and equipment in this Specification is given, and intended only, to provide a guide and overview of the Contractor's responsibilities. The information given shall not be regarded as complete or exact.

3B.3.10 Technical Handbooks/Drawings

Prior to tendering, the Tenderer shall visit the Regional Representative to scrutinize the available technical handbooks and drawings for the installation(s). Should the Tenderer notice any discrepancies, he must allow in his Tender price for preparing additional technical handbooks and/or drawings.

One set of technical handbooks, if available, for all equipment in use will be supplied to the Contractor at the commencement of the maintenance contract. Should such handbooks not be available, the Contractor shall be expected to compile the necessary documentation within six months of commencement of the Contract. This documentation will become the property of the Department.

A light of technical information and handbooks supplied to the contractor shall be signed for by the Contractor or his duly appointed representative upon handover.

The Contractor shall, as part of his contract, update literature and drawings whenever he becomes aware of discrepancies.

The Contractor shall duplicate the technical handbooks and drawings for his own use during the Contract Period. The original documents, with the update information, shall be handed over to the Regional Representative upon completion of the restoration phase of the contract.

On termination of the Contract, all technical handbooks and drawings shall be returned to the Department by the Contractor.

3B.3.11 Computer software

On any system where computers are used, the Contractor shall, as part of the Contract, supply to the Department licensed and documented copies of all <u>additional or modified</u> software used. Removable disks needed to reload the system to fully operational level in the event of a complete breakdown of the system, or for installation on a new or alternative computer system, must be supplied. The software shall include the operating system, application software, utility software and specific programs written for the system. Where programs are compiled the source files must be handed to the Department.

Installation and start-up procedures shall be clearly set out and documented. Whenever changes are made to the software, the Contractor shall supply the Department with a new set of back-ups of the software that underwent the changes. Software may only be changed with the written permission from the Department, and the reasons for proposed changes shall be fully motivated in writing. Before any changes are made, the original software shall be copied by the Contractor to removable media, which shall be handed over to the Department.

Should passwords be used on any system, the highest level of passwords shall be handed to the Department in a sealed envelope, and should any changes to the passwords be made, the new passwords shall be handed to the Department in a sealed envelope by the Contractor.

The Contractor shall also supply the Department with anti-virus protection software, which shall be loaded onto the system by the Contractor, and shall be updated by the Contractor, as new versions become available in the market. The protection software shall be memory resident and shall warn the user the moment a virus is detected.

The Tenderer shall allow in his Tender for any reformatting of the hard disk drives which may become necessary, reloading of back-up software and testing of the system once the back-up software has been loaded.

The documentation and back-up software must be handed over to the Regional Representative upon completion of the restoration phase of the Contract.

3C MAINTENANCE CONTROL SYSTEMS

3C.1 Quarterly Reports

The Contractor shall submit written quarterly reports to the Department on the status of the systems and progress achieved. The schedules and service sheets comprising the quarterly report., enclosed as ANNEXURE "B" hereto, serve as a guide only and give the MINIMUM requirements. The Contractor shall prepare his own schedules and service sheets for acceptance by the Department and shall make his own arrangements for printing and duplicating of quarterly reports and service sheets.

The reports shall also be countersigned by the specifically appointed Officer in charge of the site, building or room in which the equipment is situated, and he shall endorse the sheets to the effect that the plant is, in his opinion, operating satisfactorily. His name in print, his signature, the date and his telephone number must appear on the sheet.

This report shall show the following:

- ? Availability as calculated in paragraph 3D.2 on a daily basis for continuous 30-day periods with the running average for those periods.
- ? Any alarms indicated during the period, as well as reasons for alarms, with corrective actions taken and dates.
- ? Quarterly test results, showing, with dates:
 - ? equipment tested
 - ? faulty equipment
 - ? repairs undertaken
- ? Call-out log.
- ? Short description of call-outs with corrective action taken and dates.

The quarterly report shall be both narrative and statistical. The statistical content shall deal typically with the incidence and nature of breakdown maintenance carried out during the preceding quarter, equipment downtime and the frequency of spare replacement. The narrative content shall highlight corrective maintenance executed and shall draw attention to ongoing deficiencies being attended to by the Contractor and/or any matters requiring attention by the user.

3C.2 Site Maintenance Log

The Contractor shall provide a maintenance/repair/training log book, which shall be kept in the master control room for record purposes. This logbook will remain the property of the Department and may not be removed from the master control station under any circumstances. To ensure easy control by all parties involved, the logbook shall have triplicate sheets. The master sheet shall be supplied to the Regional Representative with the Quarterly Reports. The first copy is for use by the Contractor and the second copy shall stay in the logbook. The Contractor and/or the User Department shall be required to record the following in a chronological order:

- ? Fault incidences
- ? Fault notification to Contractor
- ? Any re-notification
- ? Replacement spares used
- ? Contractor's attendance for routine and break down maintenance
- ? Any visit to Site by the Contractor, with reasons for the visit.

The Contractor shall provide adequate supplies of these logs and shall submit the format to the Department for approval within 14 days of the award of the Contract.

Faults will be reported to one specific address only, which has the necessary telephone and facsimile facilities. Faults will be reported to the Contractor by telephone or facsimile. In the event of a complaint by telephone, the Contractor shall supply the reporter with a complaint number, which must be entered into the logbook by the reporter of the complaint. The Contractor shall inform his staff to instruct the User Department to enter the details of the complaint in the logbook.

3C.3 Repair and Response Time

It shall be expected of the Contractor to relate his actions in respect of call-outs, repairs and general maintenance to specific prescribed response and repair times.

Depending on the urgency of the call-out, the response times may vary and the table below indicates **maximum** time-spans.

Call-out Type	Response Time	Repair Time
Urgent Normal	2 hours	Refer definition
Normal	12 hours	below

Response Time shall mean the time lapsed from the time the call-out is logged by the system operator or person making the call, until the Contractor responds on site. A record will be kept in the control logbook.

Repair Time shall mean the maximum time taken by the Contractor to repair the fault, in order to limit the downtime of the system to a minimum. Repair time will be measured from the time the Contractor's response on site is logged, until such time as the fault is rectified and signed off in the control logbook.

- **3C.3.1 Downtime,** with respect to call-outs, shall mean the total time for which the system is not 100% operational, i.e. Response time plus Repair time.
- **3C.3.2** With regard to Routine periodic services, the Contractor shall notify the Regional Representative and the User Department at least 7 days in advance.

3C.4 Inspection and Testing

StandardTechSpecprevMaintenance

The Department and/or its duly appointed representative, or any person he may appoint for the purpose, may inspect and test the various portions of the work at all times and shall have full power to reject all or any portion of the work that he may consider to be defective or inferior in quality of material, workmanship or design with respect to the original installation. Any portion of the work so rejected shall be replaced immediately by the Contractor, unless, in the opinion of the Department, the work rejected can be so treated and repaired as to render it fit for incorporation in the contract works. In this event the Contractor shall, at his own risk and expense, be at liberty to repair the work to the satisfaction of the Department. The Contractor shall carry out such tests as are necessary, in the opinion of the Department, to prove that the contract requirements are being complied with.

The cost of all tests and/or analyses shall be borne by the Contractor.

3C.5 Site Meeting

A meeting between the Department and/or its duly appointed representative, and the Contractor shall be held quarterly or more frequently if so required by the Department, at a time, date and venue determined by the Department, to discuss all aspects of the maintenance of works as documented in the Quarterly Report. No additional compensation will be paid for this.

The site meetings will be under the chairmanship of the Regional Representative and/or his duly appointed representative.

3D. PERFORMANCE SPECIFICATION

3D.1 General

The Contractor's performance will be measured against the following four parameters:

- i Minimum incidence of faults
- ii Minimum down-time
- iii Good record and housekeeping
- iv Optimal service costs

Operational efficiency will be evaluated against the standards set out above. The statistics will be recorded and set out in the quarterly report submitted to the Department by the Contractor.

3D.2 Performance Standard

The Contractor shall restore the system and maintain it to ensure the successful operation thereof. For this purpose, the minimum requirements shall be measured against an availability of the overall system of **90%** or better. This availability will be calculated as follows:

Availability =
$$(Ti - tdi) \times 100$$

$$\frac{}{Ti}$$

Where:

Ti = the length of the time interval i for the applicable month under consideration expressed in hours.

cdi = the total of the MTTR's for the individual site during the time interval () for the applicable month under consideration expressed in hours.

MTTR = the mean time to repair the system as determined from the fault/service/repair log book, and shall be equivalent to the sum of all the times that the system, or any part of the system, does not conform to the operational requirements.

Example of Calculations:

- (ii) During the month 3 breakdowns occur, each with a response time of 9 hours and a repair time of 5 hours. The quarterly service takes 20 hours.

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In this example,

MTTR1 = 3 x (9+5) = 42 hours, and

MTTR2 = 20 hours

Sum of MTTR's = 42+20,

Giving.....tdi = 62 hours
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(iii) Availability =
$$\frac{720 - 62}{720}$$
 x 100 = 91,4%

The onus shall rest on the Contractor to submit the necessary motivation to the Department for its consideration and decision for MTTR periods, which the Contractor considers to have been caused by factors outside his control, and which should not be included in the calculations, e.g. malicious damage, lightning, etc. Actual damaged or faulty equipment shall be presented by the Contractor as proof before removal thereof or repairs thereto.

Where breakage's or faults are caused by factors outside the Contractor's control, he shall immediately report the incident to the Department in writing, giving a full list of the details/persons involved. A specified quotation must be attached to the report including and showing mark-up. If instructions are given to the Contractor to repair the damage, he shall supply the Department with suppliers' invoices for all spares used. Payment will be made for spares only where suppliers' invoices are submitted. If prices are unreasonably high, the Department reserves the right to pay the Contractor an amount in line with current market related prices only, plus mark-up. Actual equipment damaged by factors outside the Contractor's control shall be handed over to the Official in charge against his signature. Once the equipment has been inspected by the Regional Representative, an instruction will be given to the Contractor to remove the equipment from the Site. The removal of the equipment shall be at the Contractor's cost and shall be removed during a maintenance or service visit to the Site.

Should the Contractor have contracts on more than one site, the availabilities and penalties shall relate to, and be calculated for **EACH SITE** individually, and not the sites combined.

Where the site comprises a complex of various buildings, the availabilities and penalties shall relate to, and be calculated for, the **TOTAL SITE**, and not each individual building of the complex.

3D.3 Guarantee of Performance

3D.3.1 The Contractor shall guarantee the availability of 90% of the overall system, at each individual site at all times, as calculated and specified in paragraph 3D. 2 above. In the event of the Contractor failing to achieve this specified availability, a penalty, equal to FIFTY CENTS per ONE HUNDRED RAND OF THE TOTAL CONTRACT VALUE of EACH INDIVIDUAL SITE will be levied against the Contractor for EACH PERCENTAGE POINT PER MONTH that the overall system availability is below the availability percentage as specified herein.

3D.3.2 The penalty will be levied in each month during which the availability is below the specified percentage, and NOT on an annual, or contract basis.

3D.4 Definition of system

Unless otherwise indicated, where reference is made to the "system" or "overall system" in context with Availibility, the "system" or "overall system" shall mean **all** the systems, and sub-systems of which an installation or installations at a site, included in the Contract, is or are comprised.

The "system" or "overall system" shall include all, or some, but not necessarily only, the following:

- ? fire detection system
- ? fire protection system (Halon, CO2, foam, sprinklers)
- ? fire security system
- ? communication system
- ? emergency evacuation system
- ? access control system
- ? C.C.T.V. system
- ? integrated computer system
- ? control system
- ? perimeter security system, etc.

3E. RESTORATION OF THE SYSTEM

After award of the Contract, the Contractor shall restore all faulty equipment to the satisfaction of the Regional Representative.

The items quoted under this heading in the Schedule of Quantities shall include labour, accommodation, overhead expenses, travelling, profit and all other items necessary in restoring the system to full functioning in accordance with, if available, the manufacturer's specification, the Department's Standard Specifications, and/or the Additional Specification, all of which as applicable during the original installation. The purpose of this restoration is to ensure that the system will function as was intended at the time of the original installation.

Where Tenderers can prove to the satisfaction of the Department that spares are not available to restore the system to its original state, or that upgrading of the system will be more economical, Tenderers can allow in their Tenders for replacing the system or components with a new system or components, provided that this new system is approved by the Department and complies with the Department's Standard Specifications applicable at the Tender date.

With reference to the paragraph above, Tenderers shall clearly indicate in their Tenders the method of restoration they have allowed for, as well as motivation thereof.

Tenderers shall, with due cognizance of the functional condition of the existing system(s) indicate the maximum period required to restore the system(s) in compliance with the requirements hereof. Should the Department consider this period to be excessive, it shall reserve the right to, in consultation with the successful Tenderer, shorten the period to that which it would consider being feasible, practical and reasonable.

In the event of the Contractor failing to complete the restoration within the period so determined, the Availability required in accordance with paragraphs 3D.2 and 3D.3 hereof shall become applicable.

During this phase the Contractor shall ensure that all possible equipment remains functional. This shall be achieved, for example, by removing and replacing equipment on one floor or zone, ensuring that it functions properly before moving on to the next floor or zone. The User Department shall be informed on a daily basis of those portions of the system, which

will not be functional, so as to enable the User to make appropriate arrangements to compensate for non-functional portions of the system.

No escalation will apply to this phase of the Contract.

No progress claims shall be made during this phase. Payment of the restoration will be a once-off payment of the total amount to restore as priced and claimed in the Schedule of Quantities under Section 4. Payment will be made only after total completion of the restoration and a 21 day "hands-off" trial period. Should any malfunction of, or problems with, the system(s) occur during the 21 day "hands-off" period, the cycle will be extended by a further 21 days after the rectification of the malfunction and/or the problem.

During the "hands-off" period the Contractor shall be expected to continue normal maintenance, as prescribed and required, to keep the system functional to the availability as specified in paragraph 3D.2. Any replacement/repair of equipment during the "hands-off" period shall be subject to approval of, and prior arrangement with, the Regional Representative, whose decision to whether the said replacement/repair is considered as normal maintenance or as a result of faults in the restoration, shall be final.

The Contractor should note that payment will also be made only after the following have been delivered to the Regional Representative, or completed by the Contractor:

- ? Updated technical handbooks
- ? Updated drawings
- ? Software documentation
- ? Back-up software
- ? Passwords
- ? Training of operating staff
- ? Log books on site and in use

EXAMPLE ONLY SECTION 4

SCHEDULE OF QUANTITIES

SERVICE: CAPE TOWN: PARLIAMENTARY COMPLEX: ALL BUILDINGS, AS LISTED BELOW, INCLUSIVE

(IMPORTANT: These schedules shall be completed	TENDER NO.
in full, and in BLACK INK or BLACK PEN only).	
NAME OF TENDERER:	

1. REPAIR/RESTORATION OF ALL SYSTEMS

	PAIR/RESTURATION OF ALL SYSTEMS	
ITEM	DESCRIPTION	TENDER PRICES IN
NO.		SA CURRENCY.
		PRICES SHALL BE
		FIRM AND FIXED AND
		EXCLUSIVE OF VAT.
1.	Repair/restoration of the fire protection and	
	security systems to their original state, as	
	defined in 3E, including items listed and intended	
	in 3B.1 of the Specification, and which are	
	installed in the buildings referred to and listed	
	hereunder. The equipment comprising the	
	systems is as listed in ANNEXURE "A" hereto.	
	Separate prices are to be tendered.	
	H.F. Verwoerd Building:	
1.1	11.5 17	R
1.2	H.F. Verwoerd building -	6
4.0	Conference Room:	R
1.3	H.F. Verwoerd Building –	6
4.4	Sub-stations	R
1.4	Parliament - sub-stations:	R
1.5	Marks Building:	R
1.6	Marks Building - Halon Areas:	R
1.7	Police Guardhouse:	R
1.8	Presidents Council:	R
1.9	Tuynhuys:	R
1.10	Houses of Parliament - Old Wings:	R
1.11	Houses of Parliament - Old Main Bldg:	R
1.12	Houses of Parliament - Extensions:	R
1.13	Stalplein Complex:	R
1.14	Technical Handbooks/drawings as per	
	paragraph 3B.3.10 of the Specifications:	R
TOTAL N	ET PRICE (EXCLUDING VAT) CARRIED TO	
FINAL SUI	MMARY	R

SECTION 4

SCHEDULE OF QUANTITIES

2. MAINTENANCE/SERVICE CHARGES

ITEM NO	DESCRIPTION	TENDER PRICES IN SA CURRENCY. PRICES SHALL BE FIRM AND FIXED AND EXCLUSIVE OF VAT.
2.1 2.2 2.3 2.4 2.5 2.6 2.7 2.8 2.9 2.10 2.11 2.12 2.13	All inclusive preventive/corrective/breakdown maintenance/servicing charges, as per paragraphs 3B.3.2.2 to 3B.3.2.5 of the specification. These shall be carried out monthly/quarterly to ensure that the systems installed in the under-mentioned buildings/areas are kept in a proper and satisfactory state at all times. The equipment comprising the systems is as listed in ANNEXURE "A" hereto. Separate prices are to be tendered. Charges shall include all labour, replacement parts, material, etc, as well as Contractor's responsibilities as per paragraphs 3B.3.2.6 to 3B.3.11 of the Specification. H.F. VERWOERD BUILDING: H.F. VERWOERD BUILDING — CONFERENCE ROOM H.F. VERWOERD BUILDING — SUBSTATIONS PARLIAMENT — SUBSTATIONS: MARKS BUILDING: MARKS BUILDING: HALON AREAS: POLICE GUARDHUSE: PRESIDENTS COUNCIL: TUYNHUYS: HOUSES OF PARLIAMENT OLD WINGS HOUSES OF PARLIAMENT OLD MAIN BUILDINGS: HOUSES OF PARLIAMENT OLD MAIN BUILDINGS: HOUSES OF PARLIAMENT - EXTENSIONS: STALLPLEIN COMPLEX:	R. R
	PRICE (EXCLUDING VAT) FOR 36 MONTHS FIVE MAINTENANCE OF ALL SYSTEMS	
	D FINAL SUMMARY	
		R

SECTION 4

SCHEDULE OF QUANTITIES

ANNEXURE "A"

EXAMPLE ONLY

The overall system included in this contract, is comprised of the following items of equipment and components:

DESCRIPTION	QUANTITY
CZ 10 Fire Detection Panels	2
CZ 10 Faceplates	2
CZ power supplies with batteries	2
Ionisation Detectors Cerberus	177
Breakglass Units	10
Schindler fire Telephones	10
Evacuation Speakers	20
Midas 10 Controllers	5
Midas 10 Multiplexors (4 Input)	48
Computer Monitoring System with	
Schindler Midas and CZ10 Software	1
Printer	1
Ultrasonic Detector Cerberus	152
Infra-red Detectors	19
Door Monitors	15
Door Locks	5
IR 73	6
Microwave Detectors	4
Escape Sequence Control panels	2
Panic Alarm Panels	8
Front door controller	1
Intercoms	4
CCTV Indoor Cameras	6
CCTV Outdoor Cameras	11
Infra-red Lights for Cameras	11
CCTV Monitors 12"	12
CCTV Monitors 9"	6
CCTV Remote Controllers	11
CCTV Camera Autoswitches	2
CCTV Motion Detection controllers	2
Time Lapse Video Recorders	2
UPS with batteries	2

ANNEXURE "B"

THE FOLLOWING REPORT FORMS IN THIS ANNEXURE ARE EXAMPLES ONLY AND ARE INCLUDED IN THE SPECIFICATION AS GUIDE TO GIVE THE TENDERER AN IDEA OF WHAT WILL BE EXPECTED OF HIM. (REFER SECTION 3, PARAGRAPH 3C.1 OF THE SPECIFICATION).

(EXAMPLE ONLY)

QUARTERLY MAINTENANCE REPORT

Quarterly Maintenance Report for the period.

FROM	ТО		
CONTRACT NO	:		
CITY/TOWN			
BUILDING			
STATEMENT BY CO	NTRACTOR:		
	THIS DOCUMENT ARE TRUE AND EPT WHERE INDICATED DIFFERENT		TEMS ARE FULLY
CONTRACTOR		(PRINT)	
COMPILED BY		(PRINT)	
SIGNED BY		(CONTRACTOR)	
DATE			
ENDORSED BY OFFI	CIAL IN CHARGE:		
	E TESTED IN MY PRESENCE AND L EXCEPT WHERE INDICATED IN TH		KNOWLEDGE ARE
OFFICIAL IN CHARG	E:	(PRINT)	
OFFICIAL IN CHARG	E:	(SIGN)	
TEL. NUMBER:	DATE		

QUARTERLY MAINTENANCE REPORT (EXAMPLE ONLY)

Fire detection system

INDEX

1.	Test p	program	26
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4.	Fault i	report	33
	4.1 4.2	System printout analysis Test analysis	
5.	Alarm	report	34

1. <u>TEST_PROGRAM</u> (EXAMPLE ONLY)

JULY : Areas -

OCTOBER : Areas -

JANUARY : Areas -

APRIL : Areas -

GAS PROTECTED AREAS (EXAMPLE) ONLY

_(BUILDING)

BLOCK		FLO	OR:
ROOM No. :			
FIRST KNOCK BELL		_AIRCON OF	F:
SECOND KNOCK (Automa	tic Mode)		
			DAMPER RELAY:
SOLENOID VALVE:	GAS INDICATION)N:	DAMPER RELAY: GAS BUZZER:
MANUAL GAS RELEASE			
SIREN :	EVACUATION F	PANEL:	DAMPER RELAY:
SOLENOID VALVE:	GAS INDICATION	DN:	GAS BUZZER:
CO2 ROOM :	MAIN VALVE:_		DAMPER RELAY: GAS BUZZER: DROP WEIGHT: DN:
DETECTOR STATUS:	MISSIN	G INDICATION	DN:
ROOM No. :			
FIRST KNOCK			
BELL :		AIRCON OF	FF:
CECOND KNOCK (Automot	: a Mada)		
SECOND KNOCK (Automat	IC MOde)	24NEL -	DAMBER BELAY:
SOLENOID VALVE:	GAS INDICATION	JVI.	DAMPER RELAY: GAS BUZZER:
MANUAL GAS RELEASE	OAO INDIOATIO	ZIV	GAG BOZZEN
SIREN :	EVACUATION F	PANEL:	DAMPER RELAY:
SOLENOID VALVE:	GAS INDICATION	N:	GAS BUZZER:
CO2 ROOM :	MAIN VALVE:	DRO	P WEIGHT:
DETECTOR STATUS:		MISSING INI	DICATION:
PASSAGE			
SIREN :	SMOKE DO	OOR:	
DETECTOR MISSING:			
DOOR ALARM:	ENTRANCE:	OPE	N:CLOSED: N:CLOSED:
ESCAPE DOOR ALARM:	CENTER:_	OPEN:	N:CLOSED:
ESCAPE DOOR ALARM:		OPEN:	CLOSED:
MANUAL SELECTED INDIC	ATION:	FRONT:	BACK:
			BACK:
TEMPERATURE INDICATION	N:	FRONT:	BACK:
TECHNICIAN:		DAT	E:
TECHNICIAN:		DAT	L.

2. <u>CALIBRATION TEST</u> (EXAMPLE ONLY)

(Spreadsheets attached overleaf).

2.1 Fire lines

This is a report of the digital counts that represents the status of each fire line. The lines detecting the second floor area were tested in this case.

Minimum count = 70 Maximum count = 110

Acceptable normal count = 70 to 100

2.2 Power supply

This is the voltage supplied to the fire lines of each fire controller.

Minimum voltage = 22 V Acceptable normal voltage = 21.5 V

2.3 CO2 levels in storage tanks and Refrigeration Unit running hours.

DETECTOR LINE COUNTS (EXAMPLE ONLY)

FOURTH FLOOR

	Address No.	Archive Area	Count
BLOCK A CONTROLLER 2 LINE 5			
BLOCK B CONTROLLER 4 LINE 5			
BLOCK C CONTROLLER 6 LINE 5			
BLOCK D CONTROLLER 8 LINE 5			
BLOCK E CONTROLLER 10 LINE 5			
BLOCK F CONTROLLER 12 LINE 5			

3. FUNCTIONAL TEST

(EXAMPLE ONLY)

3.1 <u>Test procedure</u>

An orderly functional test of at least one quarter of the system is to be performed quarterly.

Where gas systems are present all gas related equipment must be tested every six (6) months. One floor together with the relevant Gas Release and Management Centre functions are tested as per attached sheets.

Test schedule:

- i) Set both HAND CONTROLLED ISOLATION VALVES in CO2 ROOM TO the SHUT/CLOSED position.
- ii) Simulate fires in all protected areas.
- iii) Complete test sheets for:
 - a. Archive areas
 - b. Office/passage areas
 - c. CO 2 room
 - d. Management Centre
- iv) Reset the fire condition after each area has been tested.
- v) Reset the gas released indication buzzer/indication after elapse of gas release period.
- vi) Reset air-conditioner "off" control.
- vii) Collect printouts and daily reports.
- viii) Record and reset communication retry diagnostics. (Print communication Log status page).
- ix) Record CO 2 levels and refrigeration unit running hours. (Print CO 2 room status page).
- x) Reset Drop-weight valves.
- xi) Set hand controlled Isolation Valves to the OPEN position.

(EXAMPLE ONLY)

Bells Sirens Evacuation panels Damper relays Solenoid valves Gas indication buzzer Status panels Manual gas release Detector missing indication Refrigeration unit trip Main valve Drop-weight valve Door alarms Escape door alarms Temperature indication Air-conditioner OFF control		TESTED	FAULTY
Sirens Evacuation panels Damper relays Solenoid valves Gas indication buzzer Status panels Manual gas release Detector missing indication Refrigeration unit trip Main valve Drop-weight valve Door alarms Escape door alarms Temperature indication Air-conditioner OFF control		120125	17.0211
Evacuation panels Damper relays Solenoid valves Gas indication buzzer Status panels Manual gas release Detector missing indication Refrigeration unit trip Main valve Drop-weight valve Door alarms Escape door alarms Temperature indication Air-conditioner OFF control	Bells		
Damper relays Solenoid valves Gas indication buzzer Status panels Manual gas release Detector missing indication Refrigeration unit trip Main valve Drop-weight valve Door alarms Escape door alarms Temperature indication Air-conditioner OFF control	Sirens		
Solenoid valves Gas indication buzzer Status panels Manual gas release Detector missing indication Refrigeration unit trip Main valve Drop-weight valve Door alarms Escape door alarms Temperature indication Air-conditioner OFF control	Evacuation panels		
Gas indication buzzer Status panels Manual gas release Detector missing indication Refrigeration unit trip Main valve Drop-weight valve Door alarms Escape door alarms Temperature indication Air-conditioner OFF control	Damper relays		
Status panels Manual gas release Detector missing indication Refrigeration unit trip Main valve Drop-weight valve Door alarms Escape door alarms Temperature indication Air-conditioner OFF control	Solenoid valves		
Manual gas release Detector missing indication Refrigeration unit trip Main valve Drop-weight valve Door alarms Escape door alarms Temperature indication Air-conditioner OFF control	Gas indication buzzer		
Detector missing indication Refrigeration unit trip Main valve Drop-weight valve Door alarms Escape door alarms Temperature indication Air-conditioner OFF control	Status panels		
Refrigeration unit trip Main valve Drop-weight valve Door alarms Escape door alarms Temperature indication Air-conditioner OFF control	Manual gas release		
Main valve Drop-weight valve Door alarms Escape door alarms Temperature indication Air-conditioner OFF control	Detector missing indication		
Drop-weight valve Door alarms Escape door alarms Temperature indication Air-conditioner OFF control			
Door alarms Escape door alarms Temperature indication Air-conditioner OFF control	Main valve		
Escape door alarms Temperature indication Air-conditioner OFF control			
Temperature indication Air-conditioner OFF control	Door alarms		
Air-conditioner OFF control	Escape door alarms		
Consider de ava	Air-conditioner OFF control		
Smoke doors	Smoke doors		
TOTAL	TOTAL		
	DECLARATION BY CONTRACTOR:		
DECLARATION BY CONTRACTOR:	I hereby certify that the drop-weight valves ar isolation valves have been opened.	nd other control mechanisms	s have been rese

SIGNATURE :_____ DATE:____

3.2

3.3 <u>TEST RESULTS</u> (EXAMPLE ONLY)

	(BUILDING)	(CO2 PLANT ROOM)		
TANK A	, ,	,		
<u>WEIGHT</u>	:			
	IN PLANT ROOM AT MANAGEMENT CENTRE	:	_kg _kg	
REFRIGERAT	TION UNIT 1			
	INDICATION:ON:	OFF:	_TRIPPED:	_
	RUNNING HOURS:		: :NTRE:	
REFRIGERAT	TION UNIT 2			
	INDICATION:ON:	OFF:	_TRIPPED:	_
	RUNNING HOURS:	_IN PLANT ROOM AT MANAGEMENT CE	: :NTRE:	_HRS _HRS
TANK B				
<u>WEIGHT</u>	:			
	IN PLANT ROOM AT MANAGEMENT CENTRE	:	_kg _kg	
REFRIGERAT	TION UNIT 1			
	INDICATION:ON:	OFF:	_TRIPPED:	_
	RUNNING HOURS:	_IN PLANT ROOM AT MANAGEMENT CE	: :NTRE:	_HRS _HRS
REFRIGERAT	TION UNIT 2			
	INDICATION:ON:	OFF:	_TRIPPED:	_
	RUNNING HOURS:	_IN PLANT ROOM AT MANAGEMENT CE	: :NTRE:	_HRS _HRS
TECHNICIAN:		DATE:		

4. <u>FAULT REPORT</u> (EXAMPLE ONLY)

(See spreadsheet overleaf).

4.1 System print-out analysis

This is an analysis of the fault conditions that were logged in the alarm list during the past month.

- 4.1.1 Detector Missing This is caused by variations in the power supply or bad connections. Some entrance door locks are making short circuits and could have contributed to the problem.
- 4.1.2 Initializing Detectors The outstation reinitializes the detectors when it loses communication with them or when a fire reset is performed. Fire resets were done at 4 occasions by the operator. The door locks could also have an effect on this problem.
- 4.1.3 Input Fuse Blown This problem was caused by the entrance door locks making short circuits to ground.

4.2 Faults reported during quarterly test

- 4.2.1 The Fire Brigade Call unit is under investigation to determine possible cost and effort to change over to another system which is used by other institutions and is facilitated at the Fire Brigade control room already.
- 4.2.2 Door locks at entrance doors to archives were found to give short circuits to ground. As a result the third, fourth and fifth floors were tested and the following found to be faulty:

Fourth floor - block A block B block C block E block B

4.2.3 The siren in archive 3 is faulty.

5. <u>ALARM REPORT</u> (EXAMPLE ONLY)

(See spreadsheet overleaf).

5.1 <u>Alarm report</u>

This is an analysis of the alarm conditions reported during the past month.

- 5.1.1 Fire No fire alarms were reported.
- 5.1.2 Fire Reset by Operator The operator performed fire resets on four occasions. It is not known if this was done by accident or as a demonstration.
- 5.1.3 Manual Selected Most alarms were recorded when the time zone expired at 16h10 and indicate that the particular areas were left in the manual mode i.e. the automatic fire sequence will not operate.
 - The remaining few Manual Selected alarms were reported before 07h15 indicating early activities by personnel.
- 5.1.4 Door Open As above most door open alarms were reported at 16h10 indicating doors being left open after working hours.
 - The door closure mechanism on the middle doors does not allow the door to close to the exact close position and it is therefor detected as open in most cases.
- 5.1.5 Temperature High Alarms were created by the temperature exceeding the high limit set for the archive temperature. The air-conditioner settings could be the cause of the problem.
- 5.1.6 Humidity High/Low As was reported last month the humidity levels are very unstable and vary from high to low through out the month without following any trend.
- 5.1.7 Escape Door Open Escape doors are apparently still used as exists from archives as these alarms were reported mainly during working hours.

ADDITIONAL CONDITIONS OF TENDER

1. DOCUMENTS

The following documents shall be read in conjunction with this Tender and shall form an integral part thereof.

Should there be any discrepancy between these Additional Conditions of Tender, the Conditions of Contract (PW 677) and the Condition of Tender (PW 210), the Additional Conditions of Tender (PW 224 (M)) shall take preference.

- (a) State Tender Board General Conditions and Procedures: ST 36. Occupational Safety Act: (Act 85 of 1993) as amended
- (b) Tender Form and conditions of Tender: Form PW 210.
- (c) Conditions of Contract
- (d) Additional Particulars concerning the Tender: Form PW 207.
- (e) Tenderer's Additional Particulars.

The Tenderer shall study these documents and acquaint himself with the contents thereof as no claims in this regard will be entertained.

2. COMPLIANCE WITH REGULATIONS

- (a) All work as specified in this specification shall comply with and tested in accordance with the following Acts and regulations:
- (b) the latest issue of SABS 0142: "Code of Practice for the Wiring of Premises".
- (c) the Occupational Health and Safety Act, 1993 (Act 85 of 1993) as amended,
- (d) the Local Government Ordinance 1939 (Ordinance 17 of 1939) as amended and the municipal by-laws and any special requirements of the local supply authority,
- (e) the Fire Brigade services act 1993 Act 99 of 1987 as amended,
- (f) the National Building Regulations and Building Standards Act 1977 (Act 103 of 1977) as amended,
- (g) the Post Office Act 1958 (Act 44 of 1958) as amended,
- (h) the Electricity Act 1984 (Act 41 of 1984) and
- (i) the Regulations of the local Gas Board where applicable.

3. PROVISIONAL SCOPE OF WORK AND QUANTITIES

Variations to the contract with regard to the 20% limit of the Contract Sum, as set out in Clause 18 of the Conditions of Contract, Form PW 677, shall not apply to a contract ensuing from this Tender.

The scope of work, description and quantities given in Section 3 and 4 of the specification shall be regarded as provisional and solely as a guide to Tenderers.

The Department reserves the right to increase or decrease, during the duration of the contract, the scope of work, description and/or quantities as given by the Tenderer, without alteration to any tariff. Such increase or decrease will be made by notice in writing to the Contractor.

4. CONTRACT PERIOD

A contract ensuing from this Tender shall remain valid for a period of thirty-six (36) months, commencing from the date of the Letter of Acceptance of the Tender. Notice of extension of the contract will be given 3 months prior to the end of the period(s), and both parties shall consent, in writing, to extensions. If no written extension is given, the contract will terminate.

5. SERVICES APPLICABLE TO THIS TENDER

This Tender shall involve the restoration and the COMPLETE maintenance service of existing installations, systems and equipment in accordance with the requirements of Section 3 of the Specification.

The responsibility shall rest on the Tenderer to acquaint himself fully with the exact extent and detail of the installations, systems and equipment at the site(s) before preparing his Tender. Permission for access to the site(s) for this purpose shall be arranged by the Tenderer with the Regional Representative and User Department

Where repairs are required to specialised items of equipment, such as automatic control systems, computers, printers, card readers, etc., the Contractor shall arrange for such work to be carried out by specialists after obtaining written approval from the Regional Representative, and the cost of carrying out such work shall be deemed to have been allowed for in the Tender price.

The Contractor shall supply all consumables and cleaning materials necessary for the proper execution and performance of the maintenance and servicing.

6. SURETY FOR FULFILMENT OF CONTRACT

It is a specific condition of this Tender, that the form of security to be provided by the Contractor shall be a cash deposit or bank guarantee cheque, to the value of R1000,00.

7. RATES

The rates as given by the Tenderer in Section 4, Schedule of Quantities, shall apply at all times. The Regional Representative reserves the right to add to, or omit from, the list. Additions shall be evaluated, either as mutually agreed, or from costs per suppliers invoice plus mark-up in the case of "EXTRA WORK".

8. MANAGEMENT

The Contractor undertakes to:

- a) Arrange in collaboration with the contact person of the User Department regarding access to the premises, in order to execute the required service.
- b) Take adequate precautions to prevent damage to buildings, and fittings and furnishing, inside the premises and elsewhere on the site.
- c) Accept liability for, and to indemnity the State against, any claims whatsoever arising from his conduct and/or the conduct of his employees.
- d) Safeguard all his employees in accordance with the Regulations of the Unemployment Insurance Act 1966, (Act No 30 of 1966) and any amendments thereof.
- e) Comply with all By-laws and requirements of the Local Authority.
- f) Implement an approved management system and procedures in accordance with Section 3; Paragraph 3B.3.3 of the specification.

9. EXECUTION OF SERVICES

In the event of failure of the Contractor to maintain and/or repair any installation, or having committed any breach in terms of the conditions hereof, such failure or breach shall be dealt with in accordance with Section 2: Paragraphs 2.17, 2.18 and 2.19 of the contract.

10. TRAINED STAFF

The Contractor shall at all times use competent and trained staff, directly employed and supervised by him, and shall take all reasonable care to maintain the installations and keep them in proper operating condition. All electrical work shall be executed by, or under the direct supervision of, a qualified electrician.

NOTE:

The Department reserves the right to call for proof of artisans' qualifications. If so required, the Contractor shall submit the necessary qualification certificates and/or papers.

11. MATERIAL OF EQUAL QUALITY

All replacement parts and spares shall comply fully with all the specifications of the original parts. Substitute electronic components will be acceptable, PROVIDED that they are equal to, and of the same quality as, or superior to, the original components and are approved, in writing, by the Department.

Any other parts, spares and materials that are used, shall conform to SABS Specifications and shall, where possible, carry the SABS mark of approval.

Substitute parts, as well as the serial numbers of the original and new components, shall be entered on the service sheets and in the maintenance/repair log book referred to in Section 3: Paragraph 3C.2 of the Specification.

The Contractor shall obtain, and cede to the Department, any supplier's or factory guarantees of repaired or replaced components, and shall ensure that such guarantees are not jeopardized in any way. The guarantee cards for repaired or

replaced components shall also be attached to the service sheets and maintenance/repair log book.

12. UNCERTAINTY ABOUT SCOPE

Should the Contractor be uncertain about the scope of any work to be executed under this contract, the Department shall be immediately requested to clarify any instruction or scope which is not clear.

13. OFFICIAL ORDER

- a) An official AGREEMENT will be entered into between the Department and the successful Tenderer as Contractor, in accordance with Section 2 of the Tender.
- b) Restoration of the existing systems, maintenance thereof and repairs thereto, as and when required, in accordance with Section 3 of the Specification shall be the sole responsibility of the Contractor in order to achieve and guarantee the performance standard specified in Section 3: Paragraph 3D. 2 of the specification.

14. HOURS OF WORK

The Contractor shall undertake to carry out the restoration, if required, maintenance, servicing and repairs during normal working hours, UNLESS PRIOR arrangements for working outside normal working hours have been made by the Contractor with, and approved in writing by, the User Department. Such work done outside normal working hours shall be at the Contractor" own risk and costs.

15. EMERGENCY SERVICES

Emergency services after normal working hours shall be executed on the request of an official of the User Department.

This shall be logged on the service sheets in the site maintenance logbook and the quarterly report. The Contractor shall ensure that the official of the User Department signs the sheets, log book and quarterly report in respect of emergency call-outs.

The Contractor shall provide 24 hours stand-by services for emergency call-outs and emergency repairs.

16. CONTRACT PRICE ADJUSTMENTS

The contract price(s) shall remain fixed for 36 calendar months, except for in the case of statutory increases, e.g. changes in taxes. The contract price(s) shall be subject to negotiated increase, if absolutely unavoidable, should the contract be extended for one or more further periods, each period not exceeding 12 months. The negotiated increase shall not exceed the increase as calculated in accordance with the SEIFSA indices of Actual Labour Costs.

17. MAINTENANCE SERVICE CONTROL SYSTEM

The Contractor shall, in accordance with Section 3 Paragraphs 3C.1 and 3C.2 of the Specification,

- a) prepare, supply and maintain, for record purposes, a site maintenance/repair log book in the master control station at each of the sites included in the contract;
- b) prepare and submit written quarterly reports comprising schedules and service sheets.

18. ACCOUNTS AND PAYMENTS

Accounts submitted by the Contractor for services rendered, shall be accompanied by a service sheet and quarterly report, duly signed and countersigned, as required in terms of paragraph 19 above.

The Tender Number MUST appear on all documents submitted to the Regional Representative.

Separate accounts, service sheets and quarterly reports shall be submitted by the Contractor for every building, or site, forming part of this contract. **NOTE:**

Any errors in the compilation of the log-sheets, quarterly report, service sheets or accounts discovered at a later stage, shall be rectified and any overpayment made to the Contractor will be recovered by the Department all in accordance with the Regulations of "State Tender Board General Conditions and Procedures: ST 36".

19. PAYMENT FOR EXTRA WORK

- a) In terms of Section 3 of the Specification, the Contractor shall deem to have allowed in his Tender price for all maintenance services, labour, transport, equipment, breakdowns, spares, repairs, replacements, stocking of spares, profit etc.
- b) With regard to restoration of the system, payment will be made to the Contractor in accordance with Section 3: Paragraph 3E of the Specification.
- c) With regard to extra work, payment will be made to the Contractor in accordance with Section 3: Paragraph 3B.3.2.6 of the Specification.

20. PAYMENT

Accounts shall be submitted quarterly by the Contractor. Payment of accounts, which comply with all the requirements of 19 and 20 hereof, will be made within 21 days after certification thereof.

21. RUBBISH AND WASTE

All rubbish and waste arising from the work shall be removed by the Contractor, and the site(s) and building(s) left clean and tidy.

22. ACCESS CARDS TO SECURITY AREAS

Should the work fall within a security area, the Contractor shall obtain, either from the S.A. National Defense Force, the S.A. Police Service, or the User

Department, access cards for his personnel and employees who work within such an area.

The Contractor shall comply with any regulation or instruction, issued from time to time by the S.A. National Defense Force, the S.A. Police Service or the Regional Representative, concerning the safety of persons and property.

23. SECURITY CHECK ON PERSONNEL

It is a specific condition of this contract, that the Regional Representative, or the Chief of the S.A. National Defense force, or the National Commissioner of the S.A. Police may require the Contractor to have his personnel, or a certain number of them, security classified.

In the event of the Regional Representative, or the chief of S.A. Defense force, or the National Commissioner of the S.A. Police Service requesting the removal of a person, or persons, from the site for security reasons, the Contractor shall do so forthwith, and the Contractor shall thereafter ensure that such person or persons are denied access to the site and/or to any documents or information relating thereto. No additional costs arising out of the foregoing shall be borne by the Department.

TENDERER'S ADDITIONAL PARTICULARS

(* Delete which is not applicable)

The p	articulars submitted could influence the adjudication of the Tender.	
1.	Period active as a contractor under the present business name:	
2.	Is the firm registered with the Department of Labour? Registration number:	* Yes No
3.	Is the firm registered with the Unemployment commissioner?	
	Registration number:	* Yes No
4.	Is the firm registered with the Compensation commissioner?	
	Registration number:	* Yes No
5.	Is the firm registered with the PWD as a Contractor?	
		* Yes No
<u>6.</u>	Telephone number - normal working hours:	
<u>7.</u>	Telephone number - after hours:	
8.	Facsimile number:	-
9.	Cellular phone number:	_
10.	Do you have a 24 hour emergency call service?	TV IN
	Number:	Yes No
11.	Do you have radio communication facilities 24 hours per day?	
		Yes No
	Number: Code:	

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FINAL SUMMARY

This Specification is for a Tender with a global amount and shall be altered only with a variation order. The total price for this Tender shall include all labour and material necessary for the execution of the work and shall be carried over to the Tender Form, which shall be submitted with these documents.

FLUCTUATIONS IN PRICES AND VALUE ADDED TAX

No contract price adjustments of whatever nature, except for decreases or increases in the Value Added Tax rate, shall be applicable to this contract. The Tenderer shall therefore make provision in his Tender Price for possible fluctuations in costs.

If Value Added Tax decreases or increases during the period from the closing date of Tenders until the end of the contract period, or any extensions thereof, the Value Added Tax payable or recoverable shall be calculated on the final value of the work, less the estimated value of the work and loose materials on the site at the time of the change in the Value Added Tax.

SUMMARY

		Page No	<u>Amount</u>
1.	Repair/Restoration of All Systems		R
2.	Maintenance/Servicing Charges		R
	SUB-TOTAL		R
Add: \	/alue Added Tax		R
	TOTAL TENDER PRICE CARRIED TO TENDER FORM: PW 210		R
	Percentage mark-up for "EXTRA WORK"		%
Is your	Tender in accordance with the Specification		*
If not, s	state deviations		YES NO

Are you registered in terms of section 23(1) or 23(3) of the Value Added Tax Act, 1991 (Act No. 89 of 199
* YES NO If so, state your VAT registration number:
Period required to complete Repair/Restorationweeks
Contact person
Telephone NoFacsimile No
SIGNATURE OF TENDERER
Address:
PLEASE NOTE:
Tenderers are requested to submit these documents whether they have submitted a Tender or not.
*** END OF DOCUMENT ***