Health and Safety Specification for Sprinkler Systems.

In terms of the Occupational Health and Safety Act, 1993 (Act 85 of 1993) and the Construction Regulations, 2014

PROJECT CLIENT:

CITY OF CAPE TOWN

DESCRIPTION OF WORKS:

Term Tender for Repairs and Maintenance of Fire Sprinkler Systems at Various Buildings within the City of Cape Town

This Health and Safety Specification forms part of the tender documentation and prescribes the **minimum legal, technical, and risk-mitigation requirements** applicable to all fire sprinkler system installation, maintenance, and repair activities carried out under this contract.

1. DEFINITIONS AND INTERPRETATION

This specification shall be read in conjunction with:

- The Occupational Health and Safety Act 85 of 1993
- The Construction Regulations, 2014
- Applicable SANS codes including but not limited to **SANS 10287, SANS 10400**, and relevant fire engineering standards
- Municipal by-laws and site-specific building rules

All definitions contained in the above legislation apply to this specification unless otherwise stated.

2. LEGAL FRAMEWORK

The Contractor shall comply with all applicable legislation, including:

- OHS Act and Construction Regulations
- Driven Machinery Regulations
- General Machinery Regulations
- Pressure Equipment Regulations
- Hazardous Chemical Agents Regulations
- Municipal Fire Safety By-laws
- All applicable SANS standards for fire protection systems

  SANS 10400 Part T: Fire Protection – national building fire safety requirements and fire protection measures

Compliance must be demonstrated through documented evidence, inspections, permits, certifications and competent appointments.

3. SCOPE OF WORK

The scope includes, but is not limited to:

- Inspection, testing, servicing and repair of fire sprinkler systems
- Replacement of faulty components
- Pipework repairs, modifications and installation
- Valve servicing and control equipment checks
- Pump testing and maintenance
- Associated builders' work required for access, repair or replacement
- Implementation of temporary fire protection measures during system downtime

4. PROJECT ENVIRONMENT

Work will be undertaken in **live, occupied municipal buildings**. The Contractor must:

- Ensure safe segregation of work areas
- Prevent unauthorised access
- Protect building occupants from hazards such as noise, dust, falling objects and hot works
- Coordinate activities with building operations and appointed representatives

5. ROLES AND RESPONSIBILITIES

The Contractor shall appoint all competent persons as per legislation, including:

- Construction Manager
- Assistant Construction Manager(s)
- Construction Supervisor(s)
- Health and Safety Officer (where required)
- Competent persons for working at heights, hot works, pressure equipment, lifting equipment and fire protection

All appointments shall be in writing, signed, and included in the Health and Safety File.

6. HEALTH AND SAFETY FILE

A project-specific Health and Safety File shall be developed, maintained, and kept on site. It shall include:

- Legal appointments
- Baseline, issue-based and continuous risk assessments
- Method statements

- PPE issue records
- Inspection registers
- Toolbox talk records
- Permits (hot works, system isolation, confined spaces, etc.)
- Incident records
- Medical fitness certificates
- Testing and commissioning documentation

A complete and updated file must be handed over at project close-out.

7. RISK ASSESSMENTS

The Contractor shall develop and implement:

- Baseline risk assessment
- Task-specific risk assessments for all high-risk activities including:
    - Hot works
    - Isolation of sprinkler systems
    - Working at heights
    - Pressure testing
    - Pump testing and dry pipe activations

Risk assessments must be communicated to all workers before work begins.

8. METHOD STATEMENTS

Method statements must be prepared, approved by the Client, and implemented for all high-risk tasks, including:

- Hot works
- Pump and pressure testing
- Sprinkler system isolation and reinstatement

- Work at heights
- Use of temporary water supplies or pumping equipment

9. ISOLATION OF FIRE SYSTEMS

No part of any fire sprinkler system may be isolated without:

- Written authorisation from the Client
- A detailed isolation permit
- Temporary fire protection measures (e.g., fire watch, portable firefighting equipment, alternative detection systems)
- Communication to building management and security

All systems must be restored and tested immediately after work.

10. HOT WORKS

All hot works require:

- A Hot Work Permit
- Continuous fire watch during and after works
- Suitable firefighting equipment
- Removal of combustible materials
- Adequate ventilation
- Compliance with municipal fire safety by-laws

11. WORKING AT HEIGHTS

All working-at-heights activities shall comply with:

- Construction Regulations Working at Heights provisions
- A Fall Protection Plan compiled by a competent person

- Use of certified access equipment (scaffolding, ladders, MEWPs)
- Formal inspection of all equipment before use

12. PRESSURE TESTING AND COMMISSIONING

All testing and commissioning activities shall include:

- Documented test procedures
- Exclusion zones
- Barriers and signage
- Use of calibrated test equipment
- Controlled pressurisation to prevent pipe bursts, flying debris or injury

13. MANUAL HANDLING

Manual handling must be minimised by:

- Using mechanical lifting aids where practicable
- Implementing safe lifting techniques
- Providing training for personnel

14. HAZARDOUS SUBSTANCES

All hazardous substances (e.g., welding gases, chemicals) must be:

- Stored safely
- Handled according to Safety Data Sheets
- Transported in approved containers
- Controlled under a Hazardous Substances Register

15. PERSONAL PROTECTIVE EQUIPMENT (PPE)

Minimum PPE includes:

- Safety shoes
- Hard hats
- Safety glasses
- Gloves
- High-visibility vests
- Specialised PPE as required (e.g. respiratory protection, arc-rated PPE for electrical work)

The Contractor must always enforce PPE compliance.

16. EMERGENCY PREPAREDNESS

Contractors must align with the Client's emergency procedures and:

- Participate in emergency drills when required
- Ensure all workers know evacuation routes
- Maintain access to emergency equipment

17. TRAINING AND COMPETENCY

All personnel must:

- Be trained and certified for their tasks
- Be medically fit for duty
- Attend safety inductions, toolbox talks and refresher training

18. HOUSEKEEPING AND WASTE MANAGEMENT

The Contractor must:

- Maintain clean working areas
- Remove waste during and after work execution
- Prevent tripping hazards, fire hazards and unauthorised storage

19. INCIDENT REPORTING

All incidents, including near misses, must be:

- Reported immediately
- Investigated by a competent person
- Recorded in the Health and Safety File
- Corrective actions implemented
- Reported to the Client in writing

20. PROJECT CLOSE-OUT

At completion, the Contractor shall hand over a consolidated Health and Safety File including:

- All permits, inspections, testing records and maintenance reports
- As-built drawings and compliance certificates
- Final risk assessments and method statements
- Competency certificates and appointment letters

Checked by: Statutory Compliance | Y |