

2024

Inspection of Automatic Sprinkler System

ASIB



Inspection of Automatic Sprinkler System

East London Industrial Development
Zone Building GW 1 (Valeo)

Complete

Client/Site Name

East London Industrial Development Zone Building GW 1 (Valeo)

Billing Address

East London Industrial Development Zone SOC Ltd P O Box 5458 GREENFIELDS
5208

Attention:

Mteteleli Zantsi
Camagwini Ngxokolo-Nomatye

Document No

UNC.9029

Prepared by

Keith van Onselen

Conducted on

18.06.2024 09:50 SAST

Site Location

East London Industrial
Development Zone (ELIDZ) East
London

Disclaimer

We have pleasure in attaching our inspector's report.

Whilst every care is taken in the preparation of the report which describes the conditions as found, such report is not a guarantee carrying responsibility for results and neither this Company nor any of its employees or agents shall be liable for any loss or damage of whatsoever nature and howsoever caused, (whether by actual or alleged negligence or otherwise), in any way arising out of the acts or omissions of the Company and/or its employees or agents aforesaid.

The report is based upon the visual inspection of the external condition of the equipment where accessible without having to provide scaffolding, ladders, staging, lighting and not requiring the removal or displacement of any temporary or permanent structure, fitting or fixture.

If there are any points arising on which you require clarification, kindly communicate with the undersigned. Assuring you of our best attention at all times.

Confidentiality

In order to maintain the integrity and credibility of the inspection processes and to protect the parties involved, it is understood that the inspectors will not divulge to unauthorized persons any information obtained during this inspection unless legally obligated to do so.

Yours faithfully,

THE AUTOMATIC SPRINKLER INSPECTION BUREAU (PTY) LIMITED



Nico van Loggerenberg
Managing Director

1. Report Summary

THE AUTOMATIC SPRINKLER INSPECTION BUREAU (PTY) LIMITED



REGISTRATION NUMBER: 1970/010833/07

1407 IMBALI
CNR LOUIS BOTHA AND
TUDHOPE AVENUES
BEREA
JOHANNESBURG
2198

TELEPHONE: +27 11 642 1703
FACSIMILE: +27 11 642 1019
E-MAIL: asib@asib.co.za
WEB SITE: www.asib.co.za

P O BOX 3139
HOUGHTON
2041

INDEPENDENT
THIRD PARTY
INSPECTION AND
ADVISORY
SERVICE SINCE
1970

© 1970 - 2023 AUTOMATIC SPRINKLER INSPECTION BUREAU ALL RIGHTS RESERVED

Code

B - Full Protection, Clearance
Certificate Issued

Please Note:

The Clearance Certificate is issued subject to the items in the report being attended to.

Standard

12th Edition

ASIB Contract No

UNC.9029

Client Order No

PO-004203

Was the sprinkler system design in order

Yes

Was the water supplies in order

Yes

Refer report UNC .9004 conducted on 08/05/2024

Was the pump room in order

No

Refer report UNC .9004 conducted on 08/05/2024

Was the installation control valves in order

Yes

Refer to Installation Control Valves - Section 7.

Was the storage in order

No

• Refer Section 8 – Storage

2. Hand Fire Appliances

Hose Reels - 30 metres ☒

Number:

28

Hand Fire Appliances - One unit per 100 m² of floor area.

DCP 9 kg ☒

Number:

70

DCP 4,5 kg ☒

Number:

78

Other ☒

Specify

Hydrant

Number:

8

Hand fire appliances date of the last service:

11/2023

Are the hand fire appliances due for their service.

No



Photo 1

Clear access to the hand fire appliances must be maintained at all times.

3. Occupancy & Storage Guidance

Percentage Hazard.

% Ordinary Hazard	20 From 0 to 100
--------------------------	---------------------

% High Hazard	80 From 0 to 100
----------------------	---------------------

Stack height signs not less than 500 mm by 500 mm in size must be prominently displayed at the maximum level of the allowable storage height in all storage and process risk areas.

Occupancy / Process Risk

Occupancy/Risk

Occupancy/Risk 1

► **Ordinary Hazard / High Hazard**

Ordinary Hazard

► **Select Occupancy / Process Risk**

Life Safety

Specify Occupancy

Offices

Specify Occupancy / Process

Offices

Category

CAT I

Design Density (mm/min)

5 mm/min

Occupancy/Risk 2

► **Ordinary Hazard / High Hazard**

High Hazard

► **Select Occupancy / Process Risk**

Storage Risk

Where goods of differing categories are stored within the same area, it is the stack height limitations of the goods with the highest category that will apply.

► **Product Stored**

Radiators

Category

CAT I

Storage

Method

Method 1

Storage Method

Free Standing / Block Storage

Design Density (mm)

ESFR

ESFR K-Factor

32

Roof Height (m)

12

Storage Height (m)

9,1

4. Sprinkler System Design

Building

Building 1

Building Name

East London Industrial Development Zone Building GW 1 (Valeo)

Date of First Inspection

September 2020

Original Installer

Fire Sprinkler Installations

Extension By

NA

Building Area m²

11088

Height of Building in meters

12

Sprinkler Detail

Area

Area 1

► Area & Type of Sprinklers

Roof Sprinklers

Ceiling Sprinklers

Void Sprinklers

Canopy Sprinklers

Number of Sprinklers

1926

Calculations

Hydraulic Calculations

Area of Operation

Area of Operation 1	
► Area of Operation	Pump Duty
Flows & Pressures 9000 l/min @ 1000 kPa	
Area of Operation 2	
► Area of Operation	Roof Most Remote Area of Operation
Flows & Pressures Valve 1 7273 l/min @ 657 kPa	
Area of Operation 3	
► Area of Operation	Roof Most Favourable Area of Operation
Flows & Pressures Valve 1 7406 l/min @ 585 kPa	
Area of Operation 4	
► Area of Operation	Roof Most Remote Area of Operation
Flows & Pressures Valve 2 7273,500 l/min @ 657,3 kPa	
Area of Operation 5	
► Area of Operation	Roof Most Favourable Area of Operation
Flows & Pressures Valve 2 7406,8 l/min @ 621,3 kPa	
Additional Sprinkler System Designs Required	No

5. Water Supplies

► Water Stored on Site.

Yes

Refer report UNC .9004 conducted on 08/05/2024

Add Water Storage Tanks

6. Pump Room

Pump Installed on Site

Yes

Refer report UNC .9004 conducted on 08/05/2024

Add Pump House

7. Installation Control Valve(s)

7.1 Sprinkler control valves accessible

Yes

Valve Cabinet

Valve Cabinet 1

Location:

Front left corner



Photo 2

Number of Alarm Valves Installed

1 x 150mm, 2 x 200mm

7.2 Sprinkler Valve Location Plate Installed

Yes

7.3 Fire Brigade Booster Pressure Limitation Plate

Yes

7.4 Block Plan Installed

Yes

7.4.1 Is the block plan labelled in accordance with the areas fed by the sprinkler control valve assemblies

Yes

7.4.2 Are the correct installation details recorded on the block plan

Yes



Photo 3

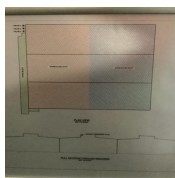


Photo 4



Photo 5

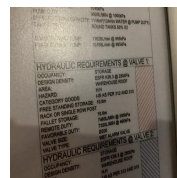


Photo 6

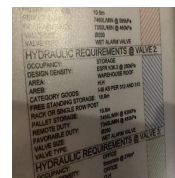


Photo 7

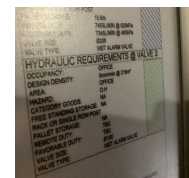


Photo 8

7.5 Sprinkler Valve Instruction Chart

Yes

7.6 Is a sprinkler spares box present

Yes

7.6.1 Was the spares box contents accessible

Yes

7.6.2 Are the spares quantities correct

Yes

7.7 By Pass Arrangement Installed

Yes

7.8 Fire Brigade Booster Connections Installed Correctly and Accessible

No

Installations must be fitted with fire brigade booster connections which will enable the fire brigade to pump water into the installation using their own equipment.

It appears that the booster connection piping to the main distribution riser is too long, which may restrict the opening of the booster plunger into the main distribution riser, this will prevent effective boosting of the sprinkler system and must be revised.



Photo 9

The missing booster connector cover must be replaced.



7.9 Are the Installation Control Valves Housed within an Approved Valve Cabinet

Yes

7.10 Flow Switch Installed Correctly

Yes

7.11 Manifold Correctly Supported

Yes

7.12 Riser Mains Correctly Supported

Yes

7.13 Riser Mains Externally Located

No

7.14 Flow Measuring Device Installed.

Yes



Photo 10



Photo 11

Flow Test Results

Pass

Recorded Flow and Pressure

7600 l/min @ 1040 kPa

7.15 Correct Pressure Gauges Installed

Yes

7.16 Correct Gauge Cocks Installed

Yes

7.17 Flanges Short Bolted

No

7.18 Loose / Missing Bolts, Nuts & Washers	No
7.19 False Alarm Prevention Pump Installed	N/A
7.20 Drain & Test Pipes Installed Correctly	Yes

7.21 Weekly tests of the installation control valves alarm bell must be carried out with the alarms sounding for at least thirty seconds.

All water pressure gauge readings must be checked and recorded.

The testing and records should be carried out by a member of staff delegated to do this.

7.22 Trunk Main Pressure (kPa)

1200

7.23 Installation Pressure (kPa)

1300

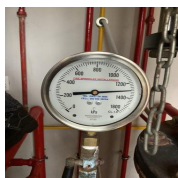


Photo 12

7.24 ASIB Overhaul Date Tag No	Yes
---------------------------------------	-----

Last Overhaul Date

11/2021

Next Overhaul Date

11/2024

7.25 Alarm Motor & Gong Test	Passed
7.26 Are All Valves in the Correct Positions	Yes
7.27 Are All Valves Secured	Yes

Non Compliance - Items

Item
Item 1
Non Compliance Items

► **Description**

Other

Maximum 1200 kPa

The system pressure has exceeded the maximum allowable pressure of 1200 kPa, this must be investigated and rectified by your installer.



Photo 13

Recommendation Items

8. Storage

Are the required clearances being maintained.

Yes

Are the storage heights exceeded.

No

At the time of inspection the storage heights were being adhered to and found to be in order.

Shelves exceed 1,0 metre in width.



The shelves must be reduced to a maximum width of 1,0 metre or intermediate sprinkler protection will be mandatory at each shelf tier level.

Location:

Rack storage area

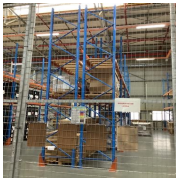


Photo 14

Issue

Issue 1

The installation of ESFR sprinklers in the canopies of this building are a non-compliance but will be accepted on this occasion on provision that these canopies are not allocated as storage areas. Only load and offload process to take place under these canopies.

Location:

Loading canopy

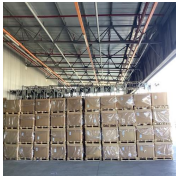


Photo 15

9. Sprinkler System

Sprinkler System

Area

Area 1

Specified Area.

External Canopies

System Issue

Issue

Issue 1

Finding

Pipe Support

Terminal range pipe hangers are exceeding the maximum distance of 750 mm from the end of the range pipe.



Location of Finding.

Loading canopy



Photo 16

Issue 2

Finding

Pipe Support

Distribution rise/drop pipes shall be secured directly to the building structure or by hangers securing horizontal distribution pipes within 300 mm of the riser.



Location of Finding.

Dropper to waste area



Photo 17

Issue 3

Finding

Pipe Support

Terminal range pipe hangers are exceeding the maximum distance of 750 mm from the end of the range pipe.



Location of Finding.

Waste area



Photo 18



Photo 19

Issue 4

Finding

Exposure Hazards

Adjacent building within 10,0 metres / 15,0 of the sprinkler protected building.



Any detached building in the Ordinary Hazard or Extra Light Hazard class, any part of which is within 10,0 m of a protected building, must itself be sprinkler protected.

Any detached building in the Extra High Hazard class, any part of which is within 15,0 m of a protected building, must itself be sprinkler protected.

Where there are practical difficulties in providing such protection as, for example, when the detached building is in separate ownership or where the detached building is lofty and open-sided, (e.g. timber storage sheds), and the value of standard sprinkler protection is doubtful, it will be required that the sprinkler protection in the protected building be extended to provide external sprinkler protection over window and door openings and over any combustible sections of the wall opposing the exposure hazard.

It should be noted that it is the hazard classification of the UNPROTECTED building which determines the required separation and NOT the hazard classification of the protected building.

Location of Finding.

Electrical rooms
Generator

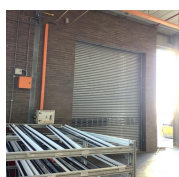


Photo 20

Issue 5

Finding

Other

Location of Finding.

The installation of ESFR sprinklers in the canopies of this building are a non-compliance but will be accepted on this occasion on provision that these canopies are not allocated as storage areas. Only load and offload process to take place under these canopies.

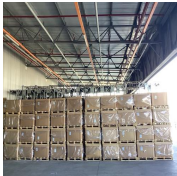


Photo 21

Area 2

Specified Area.

Warehouse

System Issue

Issue

Issue 1

Finding

Pipe Support

Distribution rise/drop pipes shall be secured directly to the building structure or by hangers securing horizontal distribution pipes within 300 mm of the riser.



Location of Finding.

To logistics office and boardroom at valve chamber

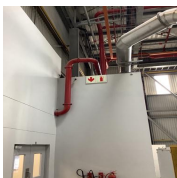


Photo 22

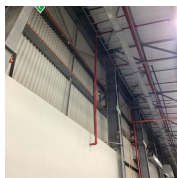


Photo 23

Issue 2

Finding

Other

Specify Other.



ESFR Mechanical Ventilation
ventilation has been installed in conjunction with ESFR sprinkler protection.

It is imperative that the mechanical vents do not open automatically in a fire situation as the ESFR sprinkler system will be adversely effected which could result in the ESFR system failure.

It is important that the mechanical vents be manually operated and that the Fire Chief in charge of operations during a fire be able to make the decision whether it should be opened or remain closed.

Location of Finding.

Roof to be verified as per above

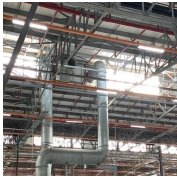


Photo 24

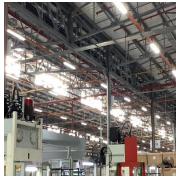


Photo 25

Issue 3

Finding

Roof Insulation

Roof Insulation - Unknown Fire Rating

The potential for combustible material existing above the line of sprinklers creates an unacceptable risk with regard to the possibility that a fire can propagate and spread and subsequently overwhelm the sprinkler system below. The insulation material must be investigated and identified in order to ensure the level of sprinkler compliance the occupancy can achieve is not compromised.

Area 3

Specified Area.

Offices

System Issue

Issue

Issue 1

Finding

Sprinkler Spacing

Sprinklers are out of effective working distance.

Location of Finding.

Offices facing car park



Photo 26



Photo 27

10. Proof of Inspection

Proof of inspection.

For and on behalf of client:



Camagwini Ngxokolo-Nomatye
20.06.2024 12:39 SAST

Proof of inspection.

ASIB Inspector:



Keith van Onselen
20.06.2024 12:39 SAST

WARNING

© The Automatic Sprinkler Inspection Bureau (Pty) Ltd 1970-2022 All rights reserved.

Copyright subsists in this work. All information contained in this report is the property of The Automatic Sprinkler Inspection Bureau (Pty) Ltd. No part of this report may be reproduced, published, performed, broadcast, transmitted or adapted in any form or by any electronic, mechanical or other means without the written permission of the copyright holder. Any unauthorised reproduction, publishing, performance, broadcasting, transmission or adaption of this work will constitute copyright infringement and render the doer liable under both civil and criminal law.

The primary function of the ASIB is to protect the interests of the end user and as a result, we constantly update the list of registered suppliers and installing companies.

These companies have proven that they are capable of installing, extending and servicing fire sprinkler systems to the correct standards.

We have had occasion to remove companies for valid reasons which are not confidential and include, but are not limited to, poor workmanship, design, fabrication, incorrect advice, lack of skilled staff, fraudulent quotations and financial instability.

It is important to note that if a company is not listed with the ASIB and carries out work on a sprinkler system we will not be in a position to issue a Clearance Certificate for the premises which, in turn, may place you at risk.

In selecting your service provider, it is important to appreciate that the ASIB is not seeking to infer that a non-listed service provider is necessarily not capable of offering the required service to an appropriate standard. What the ASIB is saying, is that the ASIB is not in a position to give you the assurance that a non-listed provider concerned has demonstrated that it complies with the ASIB standards. In addition, because the ASIB is unable to fully inspect an installation (which by its nature has many inaccessible components), you will appreciate that the ASIB is also unfortunately not in a position to issue a Clearance Certificate in relation to an installation done by a non-listed company.

We advise you to check the listing status of the service provider you choose especially if there is any uncertainty.

You can access our website at <http://www.asib.co.za> which is current or phone our offices at 011 642 1703 for verification.

Email:

Email: 1

Recipient

Mteteleli@elidz.co.za

Email: 2

Recipient

camagwini@elidz.co.za

Media summary



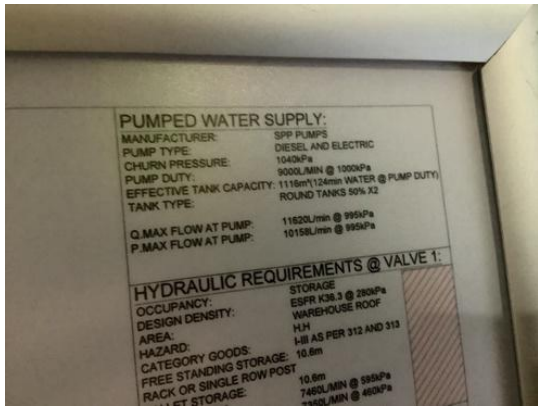


Photo 5

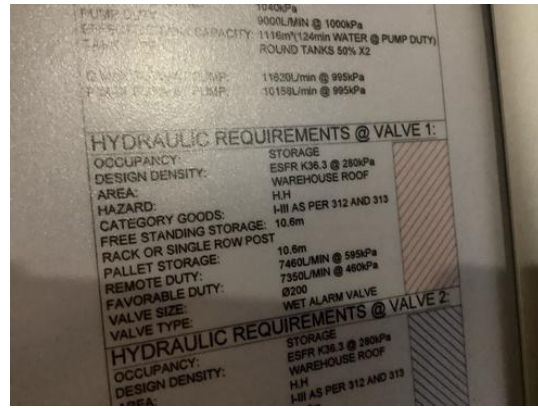


Photo 6

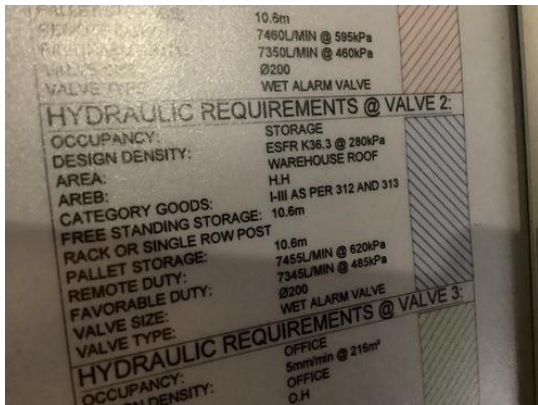


Photo 7

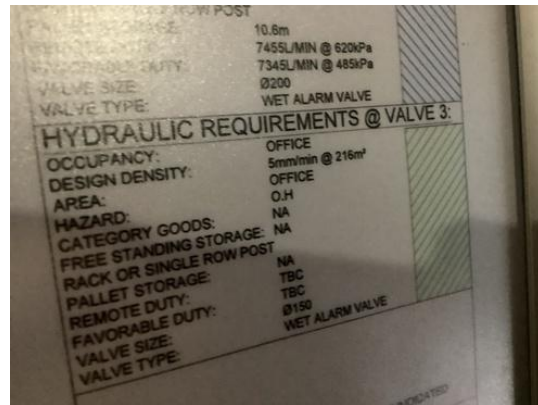


Photo 8



Photo 9



Photo 10



Photo 11



Photo 12



Photo 13



Photo 14



Photo 15



Photo 16



Photo 17



Photo 18



Photo 19



Photo 20



Photo 21



Photo 22



Photo 23

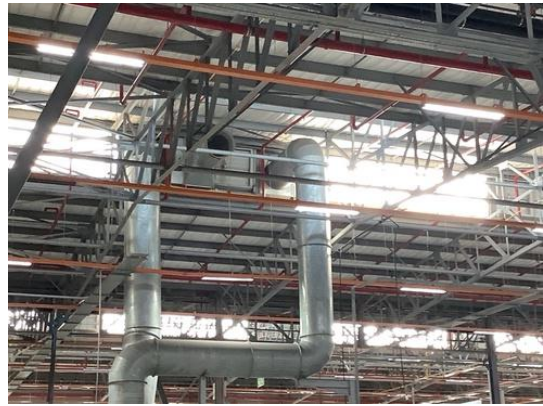


Photo 24

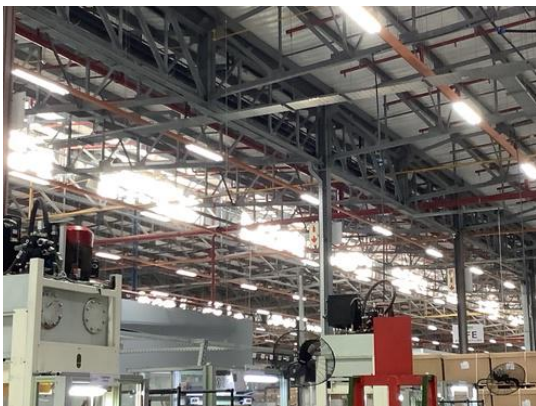


Photo 25



Photo 26



Photo 27