

2024

Inspection of Automatic Sprinkler System

ASIB



Inspection of Automatic Sprinkler System

CW1 International Automotive
Components East London Industrial
Development Zone

Complete

Client/Site Name

CW1 International Automotive Components East London Industrial Development Zone

Billing Address

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

Attention:

Mteteleli Zantsi
Camagwini Ngxokolo-Nomatye

Document No

UNC8478

Prepared by

Keith van Onselen

Conducted on

09.05.2024 08:00 SAST

Site Location

Ikhala Road East
London
EC
5201
South Africa

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

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THIRD PARTY
INSPECTION AND
ADVISORY
SERVICE SINCE
1970

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Code

PC - Partial Protection, Clearance
Certificate not Issued

Partial clearance certificate withheld due to the following:

Storage - See Report



Sprinkler System - Excessive Fault



Standard

10th Edition

ASIB Contract No

UNC8478

Client Order No

PO-004203

Was the sprinkler system design in order

No

Combined roof and rack requirements must be displayed on the block plan

Was the water supplies in order

No

Refer to report UNC.9478 conducted on 08/95/2024

Was the pump room in order

Yes

Refer to report UNC.9478 conducted on 08/95/2024

Was the installation control valves in order

No

Refer to Installation Control Valves - Section 7.

Was the storage in order

No

- Refer to Occupancy & Storage Guidance - Section 3.
 - Refer to Storage - Section 8.
-

2. Hand Fire Appliances

Hose Reels - 30 metres ☒

Number:

10

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

DCP 9 kg ☒

Number:

44

DCP 4,5 kg ☒

Number:

7

Other ☒

Specify

Hydrant

Number:

8

Hand fire appliances date of the last service:

01/2024

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	0 From 0 to 100
--------------------------	--------------------

% High Hazard	100 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**

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**

Automotive Components Mixed Categories

Category

CAT III

Storage

Method

Method 1

Storage Method

Free Standing / Block Storage

Design Density (mm)

10,0 mm/min

Roof Height (m)

11

Storage Height (m)

3,5

Method 2	
Storage Method	Beam Pallet Racking
Design Density (mm)	10,0 mm/min
Roof Height (m)	11
Storage Height (m)	2,6
The foregoing stack height limitations for racks and/or shelves refer to those areas where intermediate sprinkler protection has not been installed.	
<input checked="" type="checkbox"/>	

4. Sprinkler System Design

Building

Building 1

Building Name

CW1 International Automotive Components East London Industrial Development Zone

Date of First Inspection

Unknown

Original Installer

Unknown

Extension By

NA

Building Area m²

CW1 International Automotive Components East London Industrial Development Zone

Height of Building in meters

11

Sprinkler Detail

Area

Area 1

► Area & Type of Sprinklers

Roof Sprinklers

Ceiling Sprinklers

Canopy Sprinklers

Number of Sprinklers

950

Calculations

Hydraulic Calculations

Area of Operation

Area of Operation 1

► Area of Operation

Pump Duty

Flows & Pressures

7500 l/min @ 960 kPa

Additional Sprinkler System Designs Required

Yes

The block plan must be updated to include all of the relevant design requirements

The following documentation is required and must be submitted to the ASIB

As the majority of the required documentation for the sprinkler system has yet to be submitted, we are unable to comment on the accuracy of the design.

5. Water Supplies

► Water Stored on Site.

Yes

Refer to report UNC.9478 conducted on 08/05/2024

Add Water Storage Tanks

6. Pump Room

Pump Installed on Site

Yes

Refer to report UNC.9478 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:

North west corner of building



Photo 2

Number of Alarm Valves Installed

1 x 100 mm, 1 x 150 mm

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

No

Combined roof and rack requirements must be displayed on the block plan

A block plan must be provided with the following indicated thereon:

Particulars of the water supplies.

The occupancy of each building.

The hazard class of the system.

The extent of the protection.

The calculated flow and pressure requirement of the system.

A cross-section of the full height of the building or buildings indicating the height of the highest sprinkler with respect to a stated datum level.

The flows and pressures for the remote and favorable areas of operation recorded on the block plans must reflect the maximum pressure (Pmax) and the maximum flow (Qmax) respectively.

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 is recommended that the fire brigade pressure booster inlets must be repositioned so that they are located external to the installation control valve cabinet and easily accessible.



7.9 Are the Installation Control Valves Housed within an Approved Valve Cabinet	Yes
7.10 Flow Switch Installed Correctly	Yes
Pressure switches installed	
7.11 Manifold Correctly Supported	No
Not bolted down	
The valve manifold must be adequately supported.	
7.12 Riser Mains Correctly Supported	Yes
7.13 Riser Mains Externally Located	No
7.14 Flow Measuring Device Installed.	Yes
Flow Test Results	Pass
Recorded Flow and Pressure	4500 l/min @ 1050 kPa
7.15 Correct Pressure Gauges Installed	Yes
7.16 Correct Gauge Cocks Installed	Yes
7.17 Flanges Short Bolted	Yes

The bolts for these flanges must be removed and replaced with the correctly sized bolts so as to ensure that at least two full thread pitches past the chamfer protrude beyond the nut.

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)	
1000	
7.23 Installation Pressure (kPa)	
1200	
7.24 ASIB Overhaul Date Tag No	Yes
Last Overhaul Date	
2024	
Next Overhaul Date	
2027	
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	
Recommendation Items	

8. Storage

High Hazard



In all High Hazard areas a clear space of not less than 1,0 metre must be maintained between top of stored goods and sprinkler deflector.

Free Standing Block Storage and aisle widths are not being maintained.



No block of storage shall exceed 150 m² of floor area and shall be surrounded by aisle widths of not less than 2,4 m.

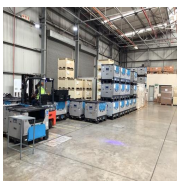


Photo 3

Are the required clearances being maintained.

No

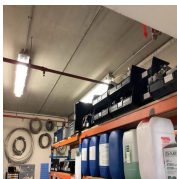


Photo 4

Are the storage heights exceeded.

Yes



Photo 5

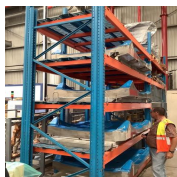


Photo 6

The storage heights must be maintained in accordance with the maximum allowable stack heights as detailed in this report. Should this not be possible, intermediate level protection is deemed to be mandatory.

Are Excessive Height Conditions Applicable

No

The clearance between the top of storage and the sprinkler deflector is not being maintained.



A minimum clearance of 150 mm (10th Edition) and 100 mm (11th Edition) must be maintained between the top of storage and the sprinkler deflector.

Location:

Rack CB

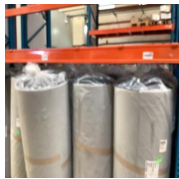


Photo 7



Photo 8

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.



Photo 9

9. Sprinkler System

Sprinkler System

Area

Area 1

Specified Area.

Warehouse

System Issue

Issue

Issue 1

Finding

Partial Protection /
Communicating Areas

Enclosed structures not sprinkler protected.



A fire originating within an unprotected area will burn in an uncontrolled manner without alerting the sprinkler system unit until such time as it breaks out of the structure. The subsequent release of heat will operate multiple sprinklers at roof level above the fire area and remote from it causing massive damage.

Location of Finding.

Glue application booths
Ovens
Extraction canopies



Photo 10



Photo 11



Photo 12



Photo 13

Issue 2

Finding

Partial Protection /
Communicating Areas

Portion of premises sprinkler protected with communicating sections that are not.



Partial protection can lead to a fire originating in the protected area radiating heat into the unprotected portion of the premises and starting secondary fires. The heat from these fires radiates or spreads back into the protected area causing excessive sprinkler operation.

Conversely, a fire originating in the unprotected portion will radiate heat or spread into the protected portion rapidly causing unnecessary sprinkler operation and overwhelming the sprinkler system installed.

Location of Finding.

New cold room



Photo 14

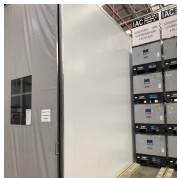


Photo 15

Area 2

Specified Area.

Offices

System Issue

Issue

Issue 1

Finding

Sprinkler Spacing

Sprinklers are out of effective working distance.



Sprinkler spaced to close to a wall or partitioning - the minimum distance a sprinkler may be from a wall or partition shall not be less than 150 mm.



Location of Finding.

Ground floor offices
Two first floor offices

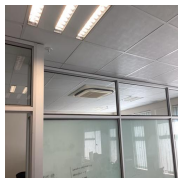


Photo 16



Photo 17

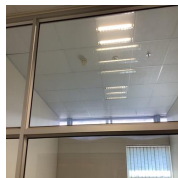


Photo 18

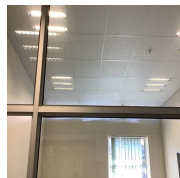


Photo 19

Area 3

Specified Area.

External Canopies

System Issue

Issue

Issue 1

Finding

Other

Specify Other.



Corrosion is evident on the sprinkler pipe work and must be addressed by your installer.

Area 4

Specified Area.

In Rack Protection

System Issue

Issue

Issue 1

Finding

Intermediate Sprinkler
Protection

**The range pipe must be lowered so that the sprinkler
deflectors protrude a minimum distance of 25 mm beneath
the horizontal beam of the rack and/or shelf.**



Location of Finding.

Rack BC

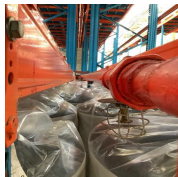


Photo 20

10. Proof of Inspection

Proof of inspection.

For and on behalf of client:



Camagwini Ngxokolo-Nomatye
20.06.2024 12:25 SAST

Proof of inspection.

ASIB Inspector:



Keith van Onselen
18.08.2023 09:45 SAST

WARNING

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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 1



Photo 2



Photo 3



Photo 4



Photo 5



Photo 6



Photo 7



Photo 8



Photo 9



Photo 10



Photo 11



Photo 12



Photo 13



Photo 14

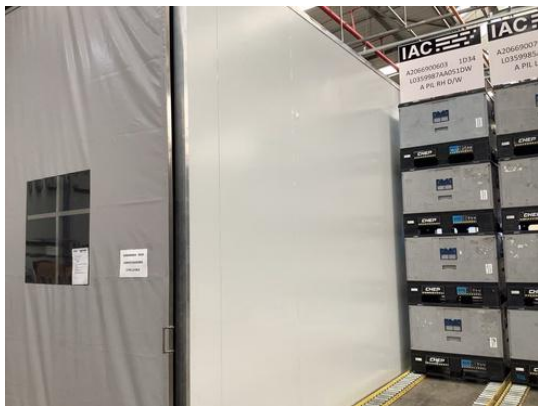


Photo 15



Photo 16



Photo 17



Photo 18



Photo 19



Photo 20