Form 1 Application for Approval of Basic Design Parameters for Automatic Sprinkler System Installations

1. Name of Protected Premises

Site Name .....

Address .....

.....

2. Work to be Carried Out

☐ New System
☐ New Water Supply
☐ Extension or Alteration to Existing System
☐ Alteration to Existing Water Supply
☐ Change of Use / Occupancy
☐ Installation of In-Rack Sprinklers

Note: ***For extensions, alterations and changes to existing systems, please provide a copy of current re-inspection report***

Copy of current re-inspection report provided: ☐ Y ☐ N ☐ N/A

Approximate Completion Date

Nominated Inspection Company

Pre-submission Correspondence

Has there been any pre-submission correspondence? ☐ Y ☐ N

If Yes, please provide file number **P**_____

3. Approval Standards

☐ NZS4541:2003
☐ NZS4541:2007
☐ NZS4541:2013
☐ NZS4515:2009
☐ NZBC Water Supply
☐ NZBC Modifications
☐ Separation
☐ HOFFE
☐ Hosereels in Storage Facilities
☐ Building Hydrant System

Note: ***Please provide a copy of the Fire Report and Specification prepared for Building Consent for all applications***

Copy of Fire Report provided: ☐ Y ☐ N

4. **Scope of Works** (Brief summary of scope of works – significant exclusions, areas being altered, etc)

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5. Building Details

Principle Use(s) of Building .....

Number of Floors ..... Building Height (m) .....

Construction *(Include details of FRR where appropriate)*

Exterior Walls .....

Floors .....

Ceiling .....

Roof .....

Are there any materials such as EPS requiring consideration? ☐ Y ☐ N

Are There Any Concealed Spaces in the Building? ☐ Y ☐ N *(Indicate below)*

Location	Is the Concealed Space Greater Than 800mm Deep	Describe How The Space will be Protected
☐ Ground to Floor	☐ Y ☐ N	
☐ Ceiling to Floor	☐ Y ☐ N	
☐ Ceiling to Roof	☐ Y ☐ N	
☐ Underfloor	☐ Y ☐ N	

6. Separation

Hazard	Description	How will Separation be Achieved
Unsprinklered Fire Cells within the Building		☐ Construction ☐ Distance ☐ Internal Drenchers ➔ Demand: l/min kPa ☐ Other *(Describe)*
External Fire Loads * Within 10m)		☐ Construction ☐ Distance ☐ External Sprinklers ➔ Demand: l/min kPa ☐ Other *(Describe)*

* Note : NZS4541:2013 as amended by the Building Code requires compliance with Clause 206. Please confirm this is recognised in the design.
☐ Y ☐ N ☐ Not Certain

7. Occupancies and Design Criteria

Is there a signed declaration (AON Form 3 or 4 attached?) ☐ Y ☐ N
Note: If a signed storage declaration is not available, please attach a draft declaration
If no, please advise expected date of submission .....

Non-Storage Areas								
Area as Shown on Block Plan		Usage	Occupancy *(ELH, OH1, OH2, OH3, OH3S, EHH Process)*	Height of Highest Sprinkler in Occupancy	Type of Sprinkler *(SSU, SSP, Residential, ECOH…)*	Design Criteria *(No. of Heads, Density x Area…)*	Design Flow *(l/min)*	Design Pressure *(kPa)*
1								
2								
3								
4								
5								
6								

Storage Areas										
Area as Shown on Block Plan		Highest Commodity Classification	Design Table Reference NZS4541	Storage Configuration (BB,SP,P,ShS,WSS,PSS,SS,SRR,DRR,MRR)	Height of Ceiling/Roof in Occupancy	Storage Height	Roof Level Design Criteria	In rack Design Criteria	Applicable Modifiers (Note 2)	Design Flow Pressure
1										
2										
3										
4										
5										
6										

Note: 1. BB – Box Bin, SP – Solid Pile, P – Palletised, ShS – Shelf, WSS – Without Solid Shelves, PS – Partial Solid Shelves (1.9m^2 to 5.9m^2), SS – Solid Shelves (>5.9m^2), SRR – Single Row Rack, DRR – Double Row Rack, MRR – Multi Row Rack.

2. List any factors such as use of dry systems, plastic pallets, encapsulation, excessive clearance, roof slope… that modify the design criteria (note that this list is not exclusive – please refer to the standard).

3. It is recommended that rack layout drawings be submitted in conjunction with any proposed in rack sprinkler installations

Special Risks
Please provide details of any special risks below (e.g. Idle pallets, flammable an combustible liquids, aerosols, rolled paper storage, rubber tyre storage, hanging garment storage…) Details of any commodities not specifically addressed in NZS4541 should be detailed here.

8. Water Supplies

What is the Water Supply Class *(tick)*

NZS4541:2003 ➔	☐ A	☐ B1	☐ B2	☐ C	☐ NZBC Single Supply
NZS4541:2007/13 ➔	☐ A	☐ B2	☐ C1	☐ C2	☐ NZBC Single Supply

Date of most recent water supply test: _____

Describe Each Water Supply (Source, Storage Capacity, Pump Description – Provide pump and driver details with application).

Primary _____

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_____

Secondary _____

_____

_____

Underground Pipe Work. Please describe the type of pipe work being used underground.
If plastic pipe work (such as HDPE or MDPE) is being used down stream of the alarm valve, please provide data to allow hydraulic calculations to be verified. (Class of pipe, outside diameter, inside diameter, PBN rating.

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Note: NZBC may require dual supplies. Please confirm that this has been checked and allowed for if necessary. : ☐ Y ☐ N

9. Valvesets

Valveset No.	Type *(X, Y, Enhanced Safety, Pre-action, Deluge, Dry…)*	Make, Model & Size	Extension Area (m^2)	Total Area (m^2)	Exposed Pipe (m^2)	Concealed Pipe/Ceiling (m^2)	No. of Floor Isolate Valves	No. of Flow Switches

Note: Include details of any tail end systems etc in the table above.

10. Sprinkler Hardware

Please provide details of all sprinklers to be used in the installation.

Area Used (from Section 6)							
Type							
Make & Model							
SIN No.							
Thread Size							
K-factor *(l/min.kPa$^{1/2}$)*							
Approx Qty.							

Flexible Droppers *Please outline areas where flexible droppers are proposed to be used in the installation. Enclose a copy of the data sheet for the dropper.*

Area Used				
Make and Model				
Length				
Equivalent Hydraulic Length				

11. FBA Connection

Provide details of Fire Brigade Alarm type and monitoring connection._____

12. Hand Operated Fire Fighting Equipment (HOFFE)

Provide details of HOFFE

Extinguisher Type	Size	Rating	Quantity

Fire Hose Reel Type	Hose Dia (mm)	Hose Length	Quantity

Confirm that HOFFE complies with NZS4503:2005 ☐ Y ☐ N

Please confirm if hose reels deleted in storage areas under NZBC ☐ Y ☐ N

Issues to be Disclosed

Please outline any issues that need to be brought to the attention of the SSC, where the Standard indicates that such issues need to be approved by the SSC, or any issues that the SSC should be aware of that are not explicitly evident in the submission. (May be in the form of a covering letter or attachment.)

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13. Block Plan

Please attach an A3 or A4 Block Plan, indicating following items:

☐ Y		Scale	☐ Y	☐ N/A	Location of Subsidiary Stop Valves
☐ Y		North Point	☐ Y	☐ N/A	Location of Drain Valves
☐ Y	☐ N/A	Fire Separations	☐ Y		Water Supplies Showing All Valves Between the Source and Alarm Valve
☐ Y	☐ N/A	External Sprinklers	☐ Y	☐ N/A	Power Supply Route for Electric Motor Driven Pumps
☐ Y		Hazard Classifications, Densities and Assumed Areas of Operation	☐ Y	☐ N/A	Location of Any Fire Alarm Panel
☐ Y		Height of Highest Sprinkler in Each Hazard Classification Area	☐ Y		Location of Any Back Flow Prevention Unit
☐ Y		Area Protected by Each Installation	☐ Y	☐ N/A	Location of Floor Isolate Valves, Flow Switches, etc
☐ Y		Location of FSI and Valves	☐ Y	☐ N/A	Location of Tail End Systems Such as Pre-Action, Deluge, Dry, Anti-Freeze, etc
☐ Y	☐ N/A	Location of Water Supply Strainers	☐ Y		Location of the Water Motor Alarm Gong

Provide a copy of a Cross Section showing the highest head(s) the height of the alarm valves, relative to the water supply test points, and where used, pump house, tank, and suction inlet.

Conditions of Contract: By signing this form, we accept Aon's Standard Conditions of Contract. A copy of these are available on request.

Signed ..... Company / Contractor .....

Name ..... Date .....

Please forward to Aon Sprinkler Certification, via email : nz.ssc@aon.com *with a copy to the nominated inspection company*