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COMBUSTIBLE STOCK STORAGE QUESTIONNAIRE AND PLASTICS IN STORAGE AND/OR USE

Construction Documents

At the time of building permit application for new structures designed to accommodate high-piled storage or for requesting a change of occupancy/use, and at the time of application for a storage permit, plans and specifications shall be submitted for review and approval. In addition to the information required by Chapter 1 of the 2022 Oregon Structural Specialty Code (OSSC), the storage permit submittal shall include the following information. (See 2022 OSSC Section 435.2.) **This document shall be included with the submittal, and shall be completed and signed by the registered design professional of record or a licensed fire protection engineer and the owner or occupying tenant.**

The construction documents (plans) shall include all of the following:

1. Provide a complete description of storage. Be specific, and include all materials used in any manufacturing or production processes.
2. Floor plan of the building showing locations and dimensions of high-piled storage areas and building height.
3. Usable storage height for each storage area.
4. Number of tiers within each rack, if applicable.
5. Identify types of racking (single row, double row, and multiple row).
6. Identify if racks contain solid shelving.
7. Commodity clearance between top of storage and the sprinkler deflector for each storage arrangement.
8. Aisle dimensions between each storage array.
9. Maximum pile volume of each storage array.
10. Location and classification of commodities in accordance with 2022 OSSC Section 435.3.
11. Location of commodities that are banded or encapsulated.
12. Location of required fire department access doors in accordance with 2022 OFC Table 3206.2.
13. Type of fire suppression system. Identify the following:
 - a. Sprinkler density:
 - b. Whether or not in-rack sprinklers are required and provided.
 - c. Sprinkler head temperature rating.
 - d. Identify if the sprinkler system is an ESFR system.
 - e. Sprinkler head K-factor.
 - f. Identify if a standpipe is required, and if required, the standpipe class.
 - g. Identify if fire hose stations and hose connections are required, and if required, the number and size.
14. Type of fire and smoke detection systems.
15. Location of valves controlling the water supply of ceiling and in-rack sprinklers.

16. Type, location and specifications of smoke removal and curtain board systems per OSSC Table 435.5.1 and Section 910.
17. Dimension and location of transverse and longitudinal flue spaces.
18. Identify if pallets are used, and type of pallet if applicable (plastic/wood/metal.)
19. Identify depth of draft curtains and clear aisle width centered below *if required* by NFPA 13.
20. Identify if column/wall fire protection within racks is required. If so, per OSSC Section 435.13.3 identify the following:
 - a. Identify if additional sprinkler heads will be provided.
 - b. If protection is required and no additional sprinkler heads will be provided, describe the type of fire-resistive construction and provide listings on the plans from an approved, nationally recognized testing agency. Listing information shall include listing number, construction materials including proprietary products, and cross sectional details.
21. Additional information regarding required design features, commodities, storage arrangement, and fire protection features within the high-piled storage area shall be provided at the time of permit, where required by the building official.

435.2.2 Approved Storage Layout (To be provided by final inspection by permit holder.)

A floor plan, of legible size, shall be provided, mounted on a wall and protected from damage. The floor plan shall be mounted in an approved location and show the following:

1. Locations, dimensions and rack layout of high-piled storage areas.
2. Design storage height of each storage area.
3. Types of commodities.
4. Commodity clearance between top of storage and the sprinkler deflector for each storage arrangement.
5. Aisle dimensions between each storage array.
6. For palletized and solid-pile storage, the maximum pile volume for each storage array.
7. Location and classification of commodities in accordance with 2022 OSSC Section 435.3.
8. Location of commodities that are banded or encapsulated.
9. Location of required fire department access doors.
10. Type of fire suppression and fire detection systems.
11. Location of valves controlling the water supply of ceiling and in-rack sprinklers.

435.3.7 Examples of commodity classification TABLE 435.3.7

Group A (NOTE: This is not a complete list. See OSSC Table 435.3.7)

ABS (crylonitrile-butadiene-styrene copolymer)	Polycarbonate
Acetal (poly-formaldehyde)	Polyester Elastomer
Acrylic (poly-methyl methacrylate)	Polyethylene
Butyl Rubber	Polypropylene
Cellulose Acetate	Polystyrene; foam products (such as plates, cups)
Cellulose Acetate Butyrate	Polystyrene; rigid products
EPDM (ethylene – propylene rubber)	Polystyrene
Ethyl Cellulose	PVC (polyvinyl chloride) – Plasticizer content greater than
FRP (fiberglass reinforced polyester)	PVF (polyvinyl fluoride)
Natural Rubber (expanded, nonexpanded, in blocks, cartoned, tires)	Pyroxylin

Nitrile Rubber (acrylonitrile butadiene rubber)	Rubber, Synthetic (santoprene)
Nylon (nylon 6, nylon 6/6)	Rubber Tires
PET (polyethylene terephthalate-thermoplastic polyester)	SAN (styrene acrylonitrile)
Polybutadiene	SBR (styrene-butadiene rubber)
Plastic bottles or jars	Vehicle batteries, any size (auto or truck); empty plastic

Group B

Cellulosics (cellulose acetate)	Silicone Rubber
Chloroprene Rubber	
Fluoroplastics (ECTFE – Ethylene – chlorotrifluoroethylene copolymer; ETFE – ethylene tetrafluoroethylene copolymer FEP – fluorinated Ethylene)	
Propylene Copolymer	

Group C

Fluoroplastics (PCTFE-polychlorotrifluoroethylene, PTFE-polytetrafluoroethylene)	RPVDC (polyvinylidene chloride)
Melamine (melamine formaldehyde)	PVF (polyvinyl fluoride)
Phenolic	PVDF (polyvinylidene fluoride)
PVC (polyvinyl chloride-rigid or lightly plasticized, e.g., pipe, pipe fittings) Plasticizer content less than 20%	Urea (urea formaldehyde)
PVC resins, bagged	

Owner/Tenant Name: _____

Signature and Date: _____

Architect/Engineer of Record: _____

Signature and Date: _____