Owner / Applicant Information

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Project Information

Thermo Dyne, Inc., Electronic Storage Warehouse
3709 Cassopolis Street

Elkhart IN 46154

County ELKHART

Project Type New [ ] Addition [Y] Alteration [ ] Existing [Y] Change of Occupancy [ ]

Project Status [U] F=Filed U or Null=Unfiled

IDHS Issued Correction order? [No] Has Violation been Issued? [No]

Violation Issued by: NA

Local Building Official

Phone: 5743224846 Email: Tim.vistine@coei.org

Local Fire Official

Phone: 5743224846 Email: Aaron.gerber@elkhartfire.org

Variance Details

Code Name: Other Code (Not in the list provided)

2014 InBC 903.3.1

Conditions: An existing, single-story, F-1 Occupancy manufacturing facility of approximately 137,530 sf, Type IIB construction will be incorporating a 3-story expansion (2nd-level is a mezzanine serving the first floor, and floors 2 and 3 which are at, and above the roof line, respectively), within the existing footprint. It is also of Type IIB construction of approximately 3,185 sf per floor. The existing building is fully sprinklered with an NFPA 13 system. Per Table 503, an F-1 Occupancy of Type IIB Construction has a max allowable area of 15,500. However, per 507.3, this building has an unlimited area with a sprinkler system meeting 903.3.1.1, and surrounded with 60-feet yards, of which it does. The building will be considered fully sprinklered for compliance with other sections of the building code.
The tower walls are of 2-hour construction to the roof deck and include two means of egress to the ground floor as well as a LULA elevator. At each level there is sensitive electronic equipment which can¿t become wet if a sprinkler should be triggered, nor can a chemical suppression system be used due to the sensitivity of the equipment. The maximum travel distance from the top floor to a point of egress at the vestibule of the tower is approximately 256-feet. There is a travel distance of approximately 85-feet to the nearest most point of egress. The existing building has multiple points of egress around the entire facility.

DEMONSTRATION THAT PUBLIC HEALTH, SAFETY, AND WELFARE ARE PROTECTED:

1=Non-compliance with the rule will not be adverse to the public health, safety or w

[2]

2= Applicant will undertake alternative actions in lieu of compliance with the rule to ensure that granting of the variance will not be adverse to public health, safety, or welfare. Explain why alternative actions would be adequate (be specific).

Facts: The variance request is to allow the 3-story tower to be included as part of that area, without a fire suppression system which would be required by Sec. 903.3.1.

1. The existing building, of Type II-B noncombustible construction, is protected with an automatic fire suppression system per NFPA 13, meeting 903.3.1.1. The new tower shall have a rated wall assembly from the ground floor to the roof of 2-hours in lieu of 1-hour. The mezzanine may be enclosed per Section 502.3, Exception 5.
2. The floor areas of the mezzanine, or floors 2 and 3, will not be used to store combustible materials.
3. The path of egress shall be marked on the ground floor, leading to a point of egress in multiple directions.
4. Staff are not stationed within the tower on a permanent basis and only access the tower to verify operations on an as needed basis and any equipment malfunctions that may need to be addressed.
5. The tower will be provided throughout with smoke detection, fire alarm notification devices (horns/strobes) which are tied to the main fire alarm panel.

DEMONSTRATION OF UNDUE HARDSHIP OR HISTORICALLY SIGNIFICANT STRUCTURE:

[ ] Imposition of the rule would result in an undue hardship (unusual difficulty) because of physical limitations of the construction site or its utility services.

[Y] Imposition of the rule would result in an undue hardship (unusual difficulty) because of major operational problems in the use of the building or structure.

[Y] Imposition of the rule would result in an undue hardship (unusual difficulty) because of excessive costs of additional or altered construction elements.

[ ] Imposition of the rule would prevent the preservation of an architecturally or a historically significant part of the building or structure

Facts: The owner's undue hardship involves the damage that may occur to the equipment located

Facts:

within the tower with a sprinkler system, meeting 903.3.1.1 or a chemical fire suppression system, which can damage the intricate and delicate electronics.

Variance Details

Code Name: Other Code (Not in the list provided)

2014 IBC Sec. Table 1016.2

Conditions: An existing, single-story, F-1 Occupancy manufacturing facility of approximately 137,530 sf, Type IIB construction will be incorporating a 3-story expansion (2nd-level is a mezzanine serving the first floor, and floors 2 and 3 which are at, and above the roof line, respectively), within the existing footprint. It is also Type IIB construction of approx. 3,185 sf per floor. The existing building is fully sprinklered per 903.3.1.1. Per Sec. 507.3, F-1 Occupancy of Type IIB Construction with sprinkler and 60-ft yard around the perimeter is allowed unlimited area with a sprinkler system meeting 903.3.1.1. The building will be considered fully sprinklered for compliance with other sections of the building code.
The tower has walls of 2-hour construction to the roof deck and includes 2 means of egress to the ground floor. Each level has sensitive electronic equipment which can¿t become wet if a sprinkler should be triggered, nor can a chemical suppression system be used due to the sensitivity of the equipment. The allowable travel distance for an F-1 Occupancy per Table 1016.2 is 250-feet with a sprinkler system. The actual maximum travel distance from the top floor to a point of egress at the vestibule of the tower is approximately 208-feet for the furthest stair, and 158-feet for the nearest stair to the vestibule. There is a travel distance of approximately 85-feet to the nearest most point of egress. The existing building has multiple points of egress around the entire facility. As the tower has less than 50-occupants per floor by calculation, the tower is only required to have one egress. If using the nearest stair and calculating to the furthest point on the upper level, total travel distance to the vestibule is 193-feet, 2-inches. With the egress from the vestibule door to the nearest point of egress is approx. 278-feet, 28-feet beyond the maximum allow. distance of 250-feet.

DEMONSTRATION THAT PUBLIC HEALTH, SAFETY, AND WELFARE ARE PROTECTED:

1=Non-compliance with the rule will not be adverse to the public health, safety or w

[ ] 2= Applicant will undertake alternative actions in lieu of compliance with the rule to ensure that granting of the variance will not be adverse to public health, safety, or welfare. Explain why alternative actions would be adequate (be specific).

Facts: The variance request is to allow the travel distance from most remote point in the top of the tower to the nearest point of egress to extend to 278-feet. Once an occupant egresses from the tower vestibule, the travel distance to the nearest point of egress is approximately 85-feet which is covered by a sprinkler system meeting 903.3.1.1.

1. The existing building is protected with an automatic fire suppression system per NFPA 13, meeting 903.3.1.1. The new tower shall have a rated wall assembly from the ground floor to the roof of 2-hours in lieu of 1-hour.

2. The path of egress shall be marked on the ground floor, leading to a point of egress in multiple directions.

3. Staff are not stationed within the tower on a permanent basis and only access those areas to verify operations on an as needed basis and any equipment malfunctions that may need to be addressed. Occupancy is limited to only specific personnel involved with this project and not all staff is granted access. There are no visitors or public allowed within the manufacturing area.

4. Variances have been approved for the extended distances through rated wall assemblies such as: 24-12-70(c), 25-08-34, 20-02-40(c), 20-09-39

5. The tower will be provided throughout with smoke detection, fire alarm notification devices (horns/strobes) which are tied to the main fire alarm panel.

DEMONSTRATION OF UNDUE HARDSHIP OR HISTORICALLY SIGNIFICANT STRUCTURE:

[Y] Imposition of the rule would result in an undue hardship (unusual difficulty) because of physical limitations of the construction site or its utility services.

☐ Imposition of the rule would result in an undue hardship (unusual difficulty) because of major operational problems in the use of the building or structure.

☐ Imposition of the rule would result in an undue hardship (unusual difficulty) because of excessive costs of additional or altered construction elements.

☐ Imposition of the rule would prevent the preservation of an architecturally or a historically significant part of the building or structure

Facts:

1. The owner's undue hardship involves the in ability for the systems to maintain the process they are being design for if there is a reduction in equipment. The system needs this area for the number of pieces of electronic equipment elements to function for the overall process. Additionally, this will create a loss of revenue to reduce the height of the tower in order to shorten the distance for travel. The required equipment is needed for the full operation and must be located on each floor.

2. Providing a horizontal egress from the vestibule to the exterior egress is not possible due to the ongoing processes currently being performed on the factory floor, as well as creating an impasse for materials and staff to attend to their duties and/or equipment.