

**NC Department of Insurance  
Office of State Fire Marshal, Engineering Division**

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RE:    Appeal of the October 12, 2021            )  
      Plan Review Response by                )  
      Catawba County Code                    )  
      Enforcement Department.                )

NCDOI DECISION

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In accordance with GS 160D-1127, Stan Winstead has appealed the Catawba County Code Enforcement Department decision regarding occupancy classification of Group F-1 for a project named “Everything Attachments”.

GS 160D-1127 allows appeals from any order, decision, or determination by a member of a local inspection department pertaining to the State Building Code or other State building laws to the Commissioner of Insurance or his designee.

**PARTIES**

Appellant:     Stan Winstead  
                  Winstead Architecture  
                  22 North Main Ave.  
                  P.O. Box 321  
                  Newton, NC 28658

Appellee:     Catawba County Code Enforcement  
                  25 Government Drive  
                  Newton, NC 28658

**BACKGROUND**

The construction project in question is for a business named “Everything Attachments” located at 1506 Emmanuel Church Road, Conover, NC 28613 and is referred to as “the facility” in the remainder of this document.

On October 12, 2021 appellee contacted Pak Yip, NC Department of Insurance (DOI), Engineering Division to confirm that Group F-1 was the correct occupancy classification for the facility. Mr. Yip confirmed the classification based on a web interpretation titled “Miscellaneous Occupancy Classifications” dated September 5, 2018 and posted on the DOI website at:  
<https://www.ncosfm.gov/building/0300-miscellaneous-occupancy-classifications-0>.

On October 12, 2021 appellee then did not approve the permit request for the facility as Group F-2 based on the information received from DOI and the afore mentioned DOI web interpretation.

On October 12, 2021 appellant emailed Tim Morrison of DOI, Engineering Division to confirm the Group F-2 designation. On October 20, 2021 Mr. Morrison confirmed the project should be classified as Group F-2 based on 2018 NC Building Code (NCBC), Section 306.3 Low-Hazard Factory Industrial, Group F-2.

On October 21, 2021 the appellant made a formal appeal to DOI of the appellee's October 12, 2021 determination that the facility should be classified as a Group F-1 instead of Group F-2.

### **ISSUE RAISED IN APPEAL**

The following is an excerpt from the appellant's formal appeal:

"Although the Catawba County Code Enforcement considered the project a moderate-hazard, Group F-1 Factory Industrial occupancy classification the appellant contends that the project is a low-hazard, Group F-2 Factory Industrial occupancy classification. Catawba County Plan Review has labelled it as an F-1 Occupancy. We simply feel this Occupancy Type does not accurately portray this facility's occupancy type and use. The following is our understanding of the 2018 NC Building Code and the code commentary associated with it, along with facts that we feel are important to this particular facility and the interpretation of its occupancy type.

- a.) The existing facility was constructed as an F-2 occupancy when originally built.
- b.) The facility is currently operating with an F-2 occupancy and a submitted, reviewed and approved set of plans list the original occupancy as an F-2, the existing occupancy as an F-2, and the proposed occupancy as an F-2.
- c.) NCBC Section 306 Low Hazard factory industrial, Group F-2 specifically describes and list "Metal Products (fabrication and assembly) as an F-2 occupancy.
- d.) All the products being produced in this facility are heavy steel tractor attachments and are of noncombustible materials.
- e.) Nowhere in the 2018 NC Building Code does it preclude this particular facility and its proposed use from being an F-2 Occupancy.
- f.) Code commentary, that we are often told to look to for answers, and is not known for its brevity, has every opportunity to preclude welding from the F-2 occupancy type, and does not. In fact, it speaks quite clear about the distinction being made between the F-1 and F-2 occupancy type. It is about the materials being fabricated, manufactured and processed. Are they non-combustible materials or are they combustible. It even goes to some length to explain that even some combustible materials are ok in the packaging of those non-combustible products in the F-2 occupancy.
- g.) It is clear in the code, based on other uses listed in the Low Hazard factory industrial group F-2, that extreme heat and fire are not processes that preclude those uses from being an F-2 Occupancy. Brick and Masonry, Ceramic Products, Foundries, Glass Products, etc. all use extreme firing methods and heat to produce, however, the code clearly is concerned with the non-combustible nature of these products.
- h.) When searched: the very definition of metal fabrication states: Metal fabrication is the process of building machines and structures from raw materials. The process includes cutting, burning, welding

machining, forming, and assembly to create the final product. This is precisely what the use of this building is for.

- i.) It should be recognized that not all F-2 buildings are allowed to be un-sprinklered and unlimited area, rather, there are specific criteria in the code that have to be met. We have met all of these criteria and requirements.
- j.) After careful reviews and thoughtful consideration of the September 5, 2018 Miscellaneous Occupancy Classification guideline letter, we feel this guide or interpretation is clearly narrow in its scope and says that 1.) It is for occupancy classifications not specifically listed in Chapter 3. We are clearly listed in Chapter 3. And 2.) it clearly says that the information listed is intended as a guide only. We have no context or information for which this guide or interpretation was addressing. This guide or interpretation appears to be written in reference to something that was occurring in a college setting of some sort. A welding shop or woodworking shop of some kind. This is hardly the environment in which Everything Attachments will be manufacturing their products.
- k.) We feel the scope of that interpretation must be narrow and limited in that, we know of other facilities in the state that have a similar, if not exact uses, including welding, as Everything Attachments, and they have been approved as F-2 Occupancy facilities recently.
- l.) Everything Attachments is using state of the art welders, fiber optic lasers and break presses.
- m.) Lastly, the owners, the general contractor, myself as Architect, and representatives from all Departments from the City of Conover, including Fire Officials, met and discussed, extensively, the uses of the building and all the requirements of this facility as an F-2 Occupancy. All of their concerns have been met or exceeded.”

### FINDINGS

Based on information submitted by the appellant, the following findings are made:

1. 2018 NCBC, Section 306.1 reads in part:

**“306.2 Moderate-hazard factory industrial, Group F-1.** Factory industrial uses that are not classified as Factory Industrial F-2 Low Hazard shall be classified as F-1 Moderate Hazard and shall include, but not be limited to, the following:

...

Machinery

Metals

...”

2. 2018 NCBC, Section 306.2 reads in part:

**“306.3 Low-hazard factory industrial, Group F-2.** Factory industrial uses that involve the fabrication or manufacturing of noncombustible materials that during finishing, packaging or processing do not involve a significant fire hazard shall be classified as F-2 occupancies and shall include, but not be limited to, the following:

...

Metal products (fabrication and assembly)

...”

3. 2018 NCBC is based on the 2015 International Building Code (IBC).
4. 2015 IBC Commentary Section 306.2 states in part:  
“Structures classified in Group F-1 (moderate hazard) are occupied for the purpose of fabrication, finishing, manufacturing, packaging, assembly or processing of materials that are combustibles or that use combustible products in the production process.”
5. 2015 IBC Commentary Section 306.3 states in part:  
“Structures classified as Group F-2 (low hazard) are occupied for the purpose of fabrication, manufacturing or processing of noncombustible materials.
6. The description of work within the proposed facility is stated as “heavy steel tractor attachments and are of noncombustible materials”. There is no mention of lubricants or flammable liquids being present in the proposed facility.
7. An October 12, 2021 email from Stan Winstead to Tim Morrison indicates that the facility was submitted for permit as 105,000sf Type VB construction but can easily be changed to remove combustible building material from the proposed design.
8. According to the American Welding Society metal sparks of 2,500 degrees Fahrenheit can travel a horizontal distance of 35 feet. Source:  
<https://www.thefabricator.com/thewelder/article/safety/preventing-welding-related-fires>.
9. There is no indication of the presence of hazardous materials in the proposed facility.
10. DOI web interpretation “Miscellaneous Occupancy Classifications” dated September 5, 2018 lists welding as a Group F-1 occupancy classification
11. DOI web interpretation “Miscellaneous Occupancy Classifications” dated September 5, 2018 opening paragraph reads in part as follows:  
“The occupant classification information provided in this list is intended as a guide only. The actual classification used in a design should be verified with and approved by the local inspection department”.

### **CONCLUSIONS**

Based on the forgoing findings of fact, the following conclusions are made:

Finding #7 indicates that NCBC, Section 507.3 is being used to allow for an unlimited area building.

Based on the 2015 IBC Commentary, the 2015 IBC did not intend to apply Group F-1 occupancy classification to manufacturing facilities if there are no combustibles material being used in the manufacturing process or result in no combustibles in the final product. This includes the presence of electric arc welding.

Any combustible materials, including building materials, should be located 35 feet or more horizontally from the location of arc welding, but there is no code requirement addressing this. Preference would be for noncombustible building materials be used throughout the facility.

Because there are no combustible products within the proposed facility the facility has a low fire hazard.

The appellee correctly contacted DOI to assist in identifying the occupancy classification.

The DOI web interpretation titled "Miscellaneous Occupancy Classifications" dated September 5, 2018 should be revised to address the hazards of welding as it relates to occupancy classification and use.

### **APPEAL DECISION**

Based on the above findings and conclusions:

The decision by the appellant to classify the building as Group F-2 is upheld.

This 29<sup>th</sup> day of October 2021.



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Carl Martin, RA  
Deputy Commissioner  
Division Chief of Engineering  
North Carolina Department of Insurance

### **FURTHER APPEAL RIGHTS**

You have the right to appeal this decision to the NC Building Code Council. Please refer to GS 160D-1114 and the NC Administrative Code and Policies, Section 202.9.2 for further appeal rights. In accordance with GS 143-141 you have 30 days in which to appeal this decision to the NC Building Code Council.

Cc:

Russell Ehrhart, Plan Examiner, Catawba County Code Enforcement  
Nathan Childs, Special Deputy Attorney General – NCBC  
Dan Johnson, Special Deputy Attorney General, NCDOI