



Fire Marshal Division

November 19, 2018

Mr. Anthony E. Chilton, AIA
P.O. Box 1722
Pilot Mountain, N.C. 27041

Re: CCG Products
807 Edwards Brothers Drive
Lillington, NC 27546

Application Number FMFW 1811-0001

Mrs. Chilton,

Thank you for submitting plans for the CCG Products. The plans have been carefully reviewed by a qualified code enforcement official to examine for full compliance with the North Carolina Fire Prevention Code and all other fire protection regulatory documents. There are some items that were found during the plan review process that need to be addressed before a final inspection of the new facility can be given. These items are outlined and described below.

- **102.3 Change of use or occupancy.**
 - The provisions of the North Carolina Administrative Code and policies and applicable North Carolina General Statutes shall apply to all buildings undergoing a change of occupancy.
- **2301.3 Construction documents**
 - At the time of building permit application for new structures designed to accommodate high-piled storage or for requesting a change or occupancy/use, and at the time of application for a storage permit, plans and specifications shall be submitted for review and approval. The plans shall include the following:
 - Floor plan of the building showing locations and dimensions of high-piled storage areas.
 - Usable storage height for each storage area.
 - Number of tiers within each rack, if applicable.
 - Commodity clearance between top of storage and the sprinkler deflector for each storage arrangement.
 - Aisle dimensions between each storage array.
 - Maximum pile volume or each storage array.
 - Location and classification of commodities in accordance



with section 2303

- Location of commodities which are banded or encapsulated.
 - Location of required fire department access doors.
 - Type of fire suppression and fire detection systems.
 - Location of valves controlling the water supply of ceiling and in-rack sprinklers.
 - Type, location and specifications of smoke removal and curtain board systems.
 - Dimension and location of transverse and longitudinal flue spaces.
 - Additional information regarding required design features, commodities, storage arrangement and fire protection features within the high-piled storage area.
- **105.7.1 Automatic fire-extinguishing systems.**
 - A construction permit is required for the fire sprinkler system installation before any such work commences. Submit complete construction documents that include the hydraulic calculations for the system. The system shall also be designed consistent with the architectural design documents and specifications. Construction documents shall include detail as described in NFPA 13 standard for automatic sprinkler system installation. Contractor must obtain construction permit for the fire sprinkler system before commencement of any work.
 - **105.7.5 Fire alarm construction permits.**
 - A construction permit is required for the fire alarm installation. Submit complete shop drawings consistent with the architectural design documents and specifications. Shop drawings shall include detail as described in Section 907.1.2 of the NC State Fire Code. Contractor must obtain the construction permit for the fire alarm system before commencement of any work.
 - **105.7.6 Fire pump and related equipment.**
 - A construction permit is required for the installation of or modification to fire pumps and related fuel tanks, jockey pumps, controllers and generators. Submit complete construction documents consistent with the architectural design, specifications and NFPA 20 standard. Contractor must obtain the construction permit for the fire pump and related equipment before commencement of any work.



- **105.7.11 Private fire hydrants.**
 - A construction permit is required for the installation or modification of private fire hydrants. Contractor must obtain the construction permit for the private hydrants before commencement of any work.

- **505.1 Physical Address**
 - The physical address of the building shall be posted in a conspicuous place so that it can be seen on approach from the road, access road, and/or parking lot.
 - The numbers used to make up the physical address shall be at least 5 inches in height.

- **506.1 Knox Box**
 - A Knox Box secure key box shall be installed on the new building that houses all keys to all the doors within the building in which the fire department would need access to in the event of an emergency. <https://www.knoxbox.com/commercial-knox-boxes>
 - The box shall be mounted 48 – 60 inches in height. Coordinate exact location with the Fire Marshal's Office staff.

- **507.3 Fire Flow (NFF)**
 - Provide a fire flow analysis for the building(s) and determined by an approved method. NC Fire Code Appendix B is acceptable method.
 - Private fire service water mains shall be installed according to NFPA 24. All fire protection water mains shall be inspected by a fire official before covering. A contractor's underground flush and test certificate is required at time of fire official inspection.

- **509.1 Control room identification.**
 - All rooms containing controls for air conditioning equipment, sprinkler risers and valves, or other fire detection, suppression, or control elements shall be physically identified in terms of use (i.e., FACP Room, Electrical Room, Riser Room)

- **604.1.1 Stationary generators.**
 - Stationary generators and standby power generators required by the fire code shall be listed in accordance with UL 2200. Provide construction documents, specifications and details for the complete installation. A construction permit is required for the installation of a flammable/combustible liquids tank.
 - The generator shall be fully tested for acceptance in accordance with NFPA 110 and 111.



- **901.2.1 State of Compliance.**
 - Before requesting final approval of the installation, where required by the fire code official, the installing contractor shall furnish a written statement to the fire code official that the subject fire protection system has been installed in accordance with the manufacturer's specifications and the appropriate installation standard. Any deviations from the design standards shall be noted and copies of the approvals for such deviations shall be attached to the written statement.

- **906.1 Fire Extinguishers**
 - Fire extinguishers shall be placed in approved locations as drawn by the code enforcement official on the approved plans.
 - The fire extinguishers provided shall have a minimum rating of 2A 10B:C and shall not be installed higher than 5 feet above the finished floor.
 - Fire extinguishers shall be serviced and tagged on a yearly basis by an authorized company.
 - Provide fire extinguishers in all special-hazard areas, including but not limited to laboratories, computer rooms and generator rooms.

- **907.4.1 Duct Smoke detectors.**
 - Smoke detectors installed in ducts shall be listed for the air velocity, temperature and humidity present in the duct. Duct smoke detectors shall be connected to the building's fire alarm control unit when a fire alarm system is required by Section 907.2. Activation of a duct smoke detector shall initiate a visible and audible supervisory signal at a constantly attended location and shall perform the intended fire safety function in accordance with this code and the International Mechanical Code. Duct smoke detectors shall not be used as a substitute for required open area detection.

- **907.17 Acceptance tests.**
 - A complete acceptance test is required to be witnessed by a representative from the fire marshal's office in conjunction with the installing contractor for each of the following. Notify the fire marshal's office in advance to schedule a test. (910) 893-0743.
 - Visual Inspection of Underground Line (with proper restraints)
 - Hydrostatic Test and Flush of Underground Line



- Above Ceiling Inspection of ALL pipe and fittings
 - Hydrostatic Test of ALL piping
 - Pump Certification Test
 - Flow Test of sprinkler/standpipe system
 - Standpipe Certification
 - 100 % test of Fire Alarm System
 - Fire and Smoke Damper Testing
 - Acceptance Test of Kitchen Ansul Fire Suppression System.
 - Emergency generator(s)
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- **907.18 Record of completion.**
 - A record of completion in accordance with NFPA 72 verifying that the system has been installed in accordance with the approved plans and specifications shall be provided.
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- **913.3 Temperature of pump room.**
 - Suitable means shall be provided for maintaining the temperature of the fire pump room above 40 degrees F.
 - Indicate on construction documents for the fire pump installation permit application.
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- **2701.5.2 Hazardous Materials Inventory Statement (HMIS)**
 - The HMIS shall include the following information:
 - Product name
 - Component
 - Chemical Abstract Service (CAS) number
 - Location where stored or used
 - Container size
 - Hazard classification
 - Amount in storage
 - Amount in use-closed systems
 - Amount in use-open systems
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- **3405.1 Dispensing, Use, Mixing and Handling**
 - Dispensing, use, mixing and handling of flammable liquids shall be in accordance with Section 3404 and Section 3405.
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- **Section 910 Smoke and Heat Vents**
 - Smoke and heat vents shall be installed in the roofs of one-story buildings or portions thereof occupied for the uses of Group F-1 or



S-1 occupancy having more than 50,000 square feet (section 910.2 and 910.2.1).

- **Section 911 Explosion Control**
 - Explosion control may be required if involving explosion hazards as identified in Table 911.1 or quantities of hazardous materials exceed the maximum allowable quantities in Table 2703.1.1(1).
- **1008.1.10 Panic and fire exit hardware**
 - Doors serving a Group H occupancy shall not be provided with a latch or lock unless it is panic hardware or fire exit hardware.
- **1011.1 Exit signs where required**
 - Exits and exit access doors shall be marked by an approved exit sign readily visible from any direction of egress travel. The path of egress travel to exits and within exits shall be marked by readily visible signs to clearly indicate the direction of travel. Exit sign placement shall be such that no point in exit access corridor or exit passageway is more than 100 feet from the nearest visible exit sign. Exit signs must meet all the provisions of section 1011.
- **Section 1006 Means of Egress illumination**
 - Emergency illumination was not indicated on the life safety plans.

Please distribute these comments to any necessary and applicable persons involved in the design and construction of the building and systems specified within this letter. If you have specific questions or concerns we can be contacted at (910) 893-7580.

Thank you again for submitting plans for CCG Products. Please review the plans and adhere to any notes and alterations that were made in addition to the original drawings. These remarks are for the plans that were submitted and its original intent. These remarks do not apply if the original intent changes or what was submitted on the above date changes. If you have any questions, please do not hesitate to call this office.

Please schedule all fire inspections through the Fire Marshal's Office (910) 893-0742.

Again, thank you and we look forward to working with you during the construction period!

Sincerely,





Harnett
COUNTY
NORTH CAROLINA



Emergency Services Department

www.harnett.org

Roger Sullivan
Deputy Fire Marshal