Guidelines

For conformance with

Codes and Regulations Relating To Safety, Fire Protection & Sanitation In Rensselaer Greek Housing

Prepared by
The Alumni Inter-Greek Council (AIGC)

Jay Webb ‘61
VP- Safety, Fire Protection and Sanitation
203-483-7090
jwebb02@snet.net
Guideline Contents

- Purpose of Guidelines
- Notice Concerning Liability
- Emergency Planning and Preparedness
- Fire Alarm Systems
- Exit Route Diagrams
- Emergency Evacuation Drills
- Marking Means of Egress (Exit Signs)
- Egress Illumination (Emergency Lights)
- Portable Fire Extinguishers
- Cooking Exhaust Hoods
- Fire Related Construction
- General Safety
- Food Service Sanitation
- Vermin Control
- Automatic Sprinklers
Purpose of Guidelines

Greek chapter houses are subject to a number of building codes, regulations and similar controls that are designed to protect the occupants and structures from harm and damage.

Regardless of any relationship with or requirements of Rensselaer, compliance is necessary and should be embraced for our own good.

The Statement of Relationship between Rensselaer and the Greek community contains reference to facility and operational improvements that Rensselaer and the AIGC deem important to pursue. The included requirements are not represented to be all that may be required by law but are simply a select few that appear most important and that deserve special attention at this time. Chapters are encouraged to pursue any and all other legal requirements that they deem appropriate.

Because there are many codes and requirements that require research and determination of applicability, the AIGC decided to develop a set of Guidelines to assist in that process and make compliance easier.

Obviously, simplification required a focus on the most probable issues with a disregard for inclusions that were deemed not applicable to our most common situations. Therefore it is possible, though not too likely, that an enforcement officer might require more or different actions.

In any event, in most cases following these guidelines will represent an improvement in performance and will do no harm. Officials usually look for substantial compliance and good intent and should be receptive to the effort.

By: The Alumni Inter-Greek Council (AIGC)
Notice Concerning Liability

Publication of this information is for the purpose of providing information to those concerned with fire safety, safety and sanitation issues in Rensselaer Greek housing. The AIGC and Rensselaer cannot guarantee the accuracy or completeness of or assume any liability in connection with the information provided. The AIGC and Rensselaer shall in no event be liable in connection with the information provided. The AIGC and Rensselaer shall in no event be liable for any personal injury, property, or other damage of any nature whatsoever, whether special, indirect, consequential, or compensatory, directly or indirectly resulting from the publication, use of, or reliance upon this information.

This information is provided with the understanding that the AIGC and Rensselaer are supplying information and opinion but are not attempting to render engineering or other professional services. If such services are required, the assistance of an appropriate professional should be sought.
Emergency Planning and Preparedness

REFERENCE

Fire Code of New York State
AIGC “Emergency Evacuation Drills”
AIGC “Exit Route Diagrams”
AIGC “Fire Alarm Systems”

PURPOSE

To develop and promulgate plans and procedures for managing or responding to emergencies.

REQUIREMENTS

• Emergency evacuation and safety plans shall include:
  • Emergency egress or escape routes. See AIGC “Exit Route Diagrams”.
  • Procedures for accounting for occupants after the evacuation has been completed. See “Emergency Evacuation Drills” for procedures that shall apply to actual emergencies.
  • Methods of alerting occupants to an emergency. See AIGC “Fire Alarm Systems”.
  • Method of reporting emergencies to fire departments and other response organizations.
  • Identification of people who must be contacted to advise or obtain further information. (Include the Advisor and a House Corp. officer)
  • Description of the fire alarm system.
  • Floor plans to show locations of exits, evacuation routes, alarm boxes, extinguishers and fire alarm pull boxes.
  • A description of the building’s special hazards, requirements for maintenance and safety rules.
  • Identification of persons responsible for maintenance of systems and equipment to report, prevent or control fires.
  • Identification of persons responsible for maintenance, housekeeping and controlling of fuel hazard sources.

• Plan maintenance- Review plans annually and revise as necessary. (Revise immediately if important)
• Availability- Plans shall be given to and explained to occupants, made easily available for reference and be provided to code enforcement officials upon request.
Training and response procedures:
- See AIGC “Emergency Evacuation Drills”.
- Occupants shall be instructed in the proper practices to prevent fires.
- See AIGC “Exit Route Diagrams”.

DISCUSSION

- Many issues within the required plan are explained in greater detail in specific sections prepared by the AIGC.
- It is recommended that such a plan include information about insurance company notification and a list of House Corporation officers with their names, addresses and phone numbers. These people should be contacted immediately after responders have been notified and injured people are receiving attention. DOSO should then be notified.
Fire Alarm Systems

REFERENCE

Building Code of New York State
NFPA 72, National Fire Alarm Code
NFPA 70, National Electric Code
Fire Code of New York State

PURPOSE

Fire alarm systems help assure the timely identification of potential and real fires by utilizing hand pull stations and automatic smoke and heat detectors to sound an evacuation alarm and place an external call for fire department response and assistance.

This document is intended to be a simplified guide to assist Greek houses to comply with building codes and, as a result, excludes detail and material not deemed relevant for compliance. Refer to the above codes for special situations or to determine the requirements applicable to specific property.

GENERAL REQUIREMENTS

- A fire alarm system shall be installed in accordance with NFPA 72, NFPA 70 and all applicable codes to include, but not be limited to, the following features:
  - Smoke detectors are required in all sleeping rooms; new systems must be hard wired to the central system. Hard wiring is preferred because they are not battery dependent and require less maintenance; hard wired is required by January 1, 2005 for existing systems.
  - Smoke detectors are required for all non-sleeping areas, except where heat detectors are required and explained below, on the following basis: one required for each 900 S.F. of floor space, spaced max. 45 ft. apart, max. 30 ft. apart in sleeping area hallways and not more than 10 ft. from bedroom doors.
  - Heat detectors, instead of smoke detectors, shall be provided in areas with heat sources such as kitchen, furnace room, laundry, and in any damp basement type spaces.
  - Transponders to be used with heat detectors in a quantity necessary to serve the heat detectors required; one serves several detectors in close proximity.
  - Alarm pull stations to be provided near all exits to the exterior and at least one per each floor or building area.
• Alarms shall be spaced to provide a min. 80 dbA at bedside and at least one per each floor or building area.
• All devices to be monitored by an off-site NFPA approved central station, 24 hrs./day, using a control panel/communicator. It connects via a phone line and automatically takes preference over any other line use. Some features of the panel are: fed with a 110V single phase circuit (direct wired with no circuit breaker), programmable to customize features, automatic dialer for the phone to central station, lockable cabinet, 90 minute battery back-up. Locate the panel near the main entrance and visible to fire protection personnel responding to trouble calls.
• Central station supervising service- The system must have a 24 hr./day continuous monitoring of the alarm system by an approved central station service or Rensselaer Public Safety. Upon receipt of a signal, every reasonable effort shall be made to transmit notification of the alarm promptly to the police department, fire department, Rensselaer Public Safety and one of the persons whose names and phone numbers are provided by the owner unless there is just cause to assume that an alarm condition does not exist.

MAINTENANCE AND TESTING

• The system must be inspected and tested once early each semester by an approved contractor, often the installer or central station supervisor. Any faults must be repaired immediately.
• File copies of the inspection reports with the housing corporation, DOSO and at the house available for review by inspecting parties.

DISCUSSION

• While hard wired smoke alarms in bedrooms are not required until 2005, it is desirable to do so now. It is difficult to inspect battery operated smoke detectors when bedrooms are locked and they are often missing and/or the batteries are not working. The confidence level of a workable system is higher with direct wired.
• While not required for the audible alarms, suggested options include: (1) Strobe light in combination with sounder for hard of hearing persons and noisy environments, (2) Tamper proof Lexan covers that fit over the pull stations. When lifted to gain access to the actual alarm, it sounds a piercing warning horn thus discouraging false alarms.
• Carbon monoxide detectors can be added to the system. Good places are the top of basement stairs and the tops of stairwells as well as in other areas that might have flame sources.
• Features that can be added, but are not required are: (1) Photoeyes for intrusion detection during unoccupied times and (2) “heat off” signal to detect a lack of building heat which is especially important during winter school breaks.
• Given the nature of Greek housing life, tests of the system are designated for the beginning of each semester which provides the greatest odds that the system will be working during the highest occupancy times. Damage at times between formal tests/inspections must be reported and repaired immediately.

• While the automatic dialer does take precedence over all other phone use, it is best to buy a dedicated phone line for this service so you know that it will never be turned off by students or used for any other purpose. Also, to be certain that the phone line has not been disconnected, the central station can conduct, from its office, frequent continuity tests for a small fee.

• The central station should be given the names and phone numbers of at least three house corporation members for notification in the event of signals. That will assure that someone will be reached.

• There is currently no time limit, in the codes, for the regular replacement of smoke and heat detectors. However, these devices do have a limited life of some 5-10 years. It is recommended that they be cleaned and closely inspected by the service contractor every 5 years and replaced if deemed unreliable.

• Installation costs will vary by the size and configuration of the facility. Approx. costs:
  
  Installation: $8-10,000

  Tests/inspections: $160/call plus repairs

  Central station monitoring: $260/yr

  Dedicated phone line: $10/month

PROFESSIONAL SERVICE CONTRACTORS

• International Built-In Systems (installation, maintenance, central station);
  518-459-3993
Exit Route Diagrams

REFERENCE

Fire Code of New York State

PURPOSE

To inform occupants about alternative routes of exit/escape in the event of an emergency.

REQUIREMENTS

- Posted floor diagrams (usually about 8”x10”), are used to inform occupants. They must show actual floor arrangement, location of the diagram (you are here), exit routes, exits and room identifications. The diagram should be oriented with the actual walls and direction to exits and use bold arrows to show the routes.
- Diagrams are required in these locations:
  - On the interior of bedroom doors.
  - In all corridors (multiple copies may be necessary in long corridors), levels of a building and rooms/spaces where the exits are not within the space and explicitly obvious. If a second exit is required, and it is not equally as obvious, then a diagram is necessary.

DISCUSSION

- One easy way to comply is to work with a blueprint, or tracing of a blueprint, of the building without all the construction notes and dimensions. Make copies and cut out portions relating to each space requiring a diagram. Use a colored marker for the location dot and arrows showing the route to exits. Draw a bold border on the diagram. Keep this as a master to make replacements (they disappear quickly in chapter houses) and make copies for current use.

They can then be laminated with 10 mil plastic and wall or door mounted using double faced tape. Cost is about $3/laminated sheet which is much cheaper than frames and they don’t break.
Emergency Evacuation Drills

REFERENCE

Fire Code of New York State

PURPOSE

An exercise performed to train occupants and to evaluate their efficiency and effectiveness in conducting emergency evacuation procedures.

REQUIREMENTS

- Frequency- At least two drills per semester of which one, of the four for the year, must be conducted after dark. They shall be repeated in each time period until they are conducted properly and occupants act as a matter of routine.

TIME AND CONTENT

- Drills to be held at expected and unexpected times to simulate real fire conditions. Vary times. Use a different assumed area of fire to block egress and force alternate evacuation routes. Be sure that unfamiliar exits are used. At least one annual drill is to use fire escapes, where provided.
- Emphasis to be placed on an orderly evacuation under proper discipline rather than speed.
- The drill shall include teaching occupants to:
  - Assist handicapped people in their area.
  - Assure that nearby occupants hear the alarm and are able to evacuate.
  - Close all doors, especially fire doors, as they exit.
- Leadership- Responsibility for the planning and conduct of drills shall be assigned to competent persons designated to exercise leadership.
- Record keeping- Records shall be maintained of required emergency evacuation drills and include the following information:
  - Identity of the person conducting the drill.
  - Date and time of the drill.
  - Notification method used (like the alarm).
  - Number of occupants evacuated and number who failed to evacuate (not permitted).
- Special conditions simulated.
- Problems encountered.
- Weather conditions.
- Time required to accomplish the evacuation (four minutes is the goal).

- Initiation- Where a fire alarm system is provided, drills shall be initiated by activating the fire alarm system. (Be sure to advise, in advance, the central station monitoring the system so they do not call the fire department. When the drill is complete, call again to advise them to return to normal.)

- Accountability- As building occupants arrive at the designated assembly point, efforts shall be made to determine if all occupants have been successfully evacuated or have been accounted for. (In the event of a real fire, the fire department would be advised if someone is left in the building. It is recommended that one person in each building area/wing/floor act as a “captain” to account for persons and conditions in that area and report to the leader after evacuation.)

- Recall and reentry- No one shall reenter the premises until authorized to do so by the person in charge. (Before allowing reentry, that person(s) shall enter and inspect the whole area for persons left behind and to note that all doors have been closed.)
Emergency Evacuation Audit

GREEK HOUSE NAME: __________________________________
ADDRESS: __________________________________
__________________________________
PHONE NUMBER:       __________________________________
PERSON CONDUCTING THE DRILL (PRINT): ______________________________
-----------------------------------------
DATE OF DRILL: ____________   TIME OF SIGNAL: ____________
WEATHER CONDITIONS: _________________ TYPE OF SIGNAL: _____________
TIME FIRST PERSON EXITS: ________ TIME LAST PERSON EXITS: ________
ELAPSED TIME BETWEEN SIGNAL AND FULL EVACUATION: ________ Min.
NUMBER OF PERSONS EVACUATED: _________
NUMBER OF PERSONS FAILING TO EVACUATE: ________
SPECIAL CONDITIONS SIMULATED FOR DRILL: ___________________________
________________________________________________________________________
________________________________________________________________________
---------------------------------------
CRITIQUE (address traffic control, area of assembly, general orderliness, ability to hear the
signals, system operation, area “captains” closed fire doors and checked rooms for laggards
etc.)

FOLLOW-UP AND RECOMMENDATIONS:

SIGNED: ____________________________
DATE:     ___________

CC: DOSO, HOUSE CORPORATION, CHAPTER FILE
Marking Means of Egress (Exit Signs)

REFERENCE

Fire Code of New York State
Building Code of New York State
NFPA 70, National Electric Code

PURPOSE

To enable occupants to locate emergency exits and even to do so at night without building power.

REQUIREMENTS

- Where required- Exits and exit access doors shall be marked by an approved exit sign readily visible from any direction of egress travel and where the exit or the path of egress is not immediately visible to the occupants. Exit sign placement shall be such that no point in an exit access corridor is more than 100 ft. from the nearest visible exit sign. Directional arrows to be included for all signs leading to an exit (as opposed to being at the exit). Any door, passage, stair etc that is not an exit or way of egress must be signed “No Exit” (does not have to be lighted).

Exceptions:
- Exit signs are not required in rooms or areas which require only one exit or exit access (bedrooms).
- Main exterior exit doors or gates which obviously and clearly are identifiable as exits need not have exit signs where approved by the code enforcement official.
- Graphics- Every exit sign and directional exit sign shall have plainly legible letters not less than 6 inches high with principal strokes of the letters not less than 0.75 inches wide. The word EXIT shall have letters having a width not less than 2 inches wide except the letter “I”, and the minimum spacing between letters shall not be less than 0.375 inch. Signs larger than the minimum established shall have letter widths, strokes and spacing in proportion to their height.
The word EXIT shall be in high contrast with the background and shall be clearly discernible when the exit sign illumination means is or is not energized. If an arrow is provided as part of the exit sign, the construction shall be such that the arrow direction cannot be readily changed.

- Exit sign illumination- Exit signs shall be internally or externally illuminated. The face of an exit sign illuminated from an external source (emergency light aimed at the exit sign) shall have an intensity of not less than 5 ft. Internally illuminated signs (normally used) shall provide equivalent luminance and be listed for the purpose.

Exception- Approved self-luminous exit signs that provide evenly illuminated letters shall have a minimum luminance of 0.06 ft-lamberts. (Note: many of these utilize a very lower power radioactive source whose use, location and disposal are subject to regulations; it is not worth it.)

- Power sources- Exit signs shall be illuminated at all times. To ensure continued illumination for a duration of not less than 90 minutes in case of primary power loss, the exit signs shall be connected to an emergency power system consisting of central storage batteries (a group serving many signs), an on-site generator or unit equipment (individual lights with their own batteries; the usual installation for small buildings like Greek houses). The installation shall be in accordance with the Building Code of New York State.

Exception: Approved exit signs that provide continuous illumination independent of external power sources for a duration of not less than 90 minutes, in case of primary power loss, are not required to be connected to an emergency power source.

TESTING AND MAINTENANCE

- Signs to be visually inspected every 30 days.
- Annual test lasting 90 minutes.
- Owner must keep written records of inspections, tests and repairs.

DISCUSSION

- The installation usually involves a separate circuit serving several lights (and also Egress Illumination) that has its own circuit breaker with a clip to prevent its accidental deactivation. The unit batteries are continuously being charged until the unit senses a power failure and the batteries become the source of power.
- To avoid frequent lamp burn out, specify LED lamps; low power use also

EQUIPMENT SUPPLIERS

- Most electrical supply houses including Wolberg Electric, Albany, 518-489-8451 and Troy Light, Troy, 518-274-6931. Installation is by an electrical contractor who can also supply the signs. There are many types to investigate and select what is appropriate.
**Egress Illumination (Emergency Lights)**

**REFERENCE**

- Fire Code of New York State
- NFPA 70, National electric Code
- Building Code of New York State

**PURPOSE**

To provide sufficient illumination in public spaces and exit routes to safely exit a building that experiences a power failure.

**REQUIREMENTS**

- The means of egress, including the exit discharge, shall be illuminated at all times the building is occupied.
- System performance- Emergency lighting shall be arranged to provide initial illumination that is at least an average of 1 fc measured along the path of egress at floor level. Levels shall be permitted to decline to 0.6 fc average and a minimum at any point of 0.06 fc at the end of the emergency lighting time duration.
- The power supply for means of egress illumination shall normally be the building electrical supply.
- In the event of a power failure, an emergency electrical system shall automatically illuminate the following areas: exit corridors/passageways/aisles in rooms and spaces which require two or more exits. (Bedrooms do not require them); the exterior of the building, immediately outside the exit.
- The emergency power system shall provide power for a duration of not less than 90 minutes and shall consist of storage batteries (a group serving many lights), an on-site generator or unit equipment (individual lights with their own batteries; the usual installation for small buildings like Greek houses).
- The installation shall be in accordance with the Building code of New York State.

**TESTING AND MAINTENANCE**

- Functional test of all units every 30 days.
- Annual test lasting 90 minutes.
- Owner must keep written records of inspections, tests and repairs.
DISCUSSION

- Exit lights are mounted high on a wall and can have one or more lamps, even a remote lamp, that can be directed in several directions. For example, in the center of a reasonably short corridor, one unit can have two lamps with one pointing in each direction.
- The installation usually involves a separate power circuit serving several units (and also exit lights) that has its own circuit breaker with a clip to prevent its accidental deactivation. The unit batteries are continuously being charged until the unit senses a power failure and energizes the lamps. After building power is restored, the batteries automatically recharge.
- Units usually have a button on the cover for testing the lights; push the button and it lights. A small lighted pilot shows power to the unit.
- Most inspectors will not require the exterior lighting if there is sufficient ambient light; few systems have them (that is not to say that they are not required). If lights exist in all the important spaces and corridors, in small “homes”, there is usually no effort to determine the fc level because it is most likely adequate.

EQUIPMENT SUPPLIERS

- Most electrical supply houses including Wolberg Electric, Albany, 518-489-8451 and Troy Light, Troy, 518-274-6931. Installation is by an electrical contractor who can also supply the units. There are many types so investigate and select what is appropriate.
Portable Fire Extinguishers

REFERENCE

Building Code of New York State
NFPA 10; Standard For Portable Fire Extinguishers; 2002 Edition

PURPOSE

Portable fire extinguishers are intended as a first line of defense to cope with fires of limited size. They are needed even if the property is equipped with other permanently installed systems.

This document is intended to be a simplified guide to assist Greek houses to comply with building codes and, as a result, excludes detail and material not deemed relevant for compliance. Refer to NFPA 10 for special situations or to determine the requirements applicable to specific property.

GENERAL REQUIREMENTS

- Greek housing will normally have a risk classification of “Light (low) hazard” as for motels/hotels. Large amounts of combustibles, flammable liquids etc could raise that classification to a higher hazard. These recommendations will assume a Light hazard.
- Cabinets for fire extinguishers shall not be locked except where subject to malicious use and the cabinets have provision for emergency access (like an easily breakable locking device).
- Fire extinguishers shall not be obstructed or obstructed from view.
- They shall be installed on a hanger designed for that use, placed in a cabinet or wall recess.
- Besides selection for the level of hazard, extinguishers are selected for the classification of fire. Those normally found in Greek housing are:
  - Class A fires- Combustible materials like paper, wood and most plastics
  - Class B fires- Flammable liquids like oils, solvents, gasoline
  - Class K fires- Cooking equipment like stoves and fryers

Note: When a Class K extinguisher is placed near a stove or fryer having a hood and permanent extinguishing system, there shall be a sign, approximately 7”x11”, to say: “Warning! In case of appliance fire, use this extinguisher after fixed suppression system has been activated.”
• Class K extinguishers are required, for cooking oil exposures, for installations after January 1, 2002. Non-conforming extinguishers must be replaced when discharged or when due for a 6 year maintenance or hydrostatic test.

**DISTRIBUTION OF FIRE EXTINGUISHERS**

• Select the type units for the exposure classification as above.
• Size and placement for Class A hazards (most areas):
  - Min. rated single extinguisher: 2A (two units)
  - Max. floor area per unit of A: 3000 SF
  - Max. floor area for an extinguisher: 11,250 SF
  - Max. travel distance to extinguisher: 75 ft.

  Note: The above applies to each floor level. At least one is required per floor or distinct building area.

• Class B and K hazards are limited in area in Greek houses. Place one proper extinguisher near the hazard:

<table>
<thead>
<tr>
<th>Class hazard</th>
<th>Min. Ext. rating</th>
<th>Max. distance from hazard</th>
</tr>
</thead>
<tbody>
<tr>
<td>B</td>
<td>5-B</td>
<td>30 ft.</td>
</tr>
<tr>
<td>K</td>
<td>6 Liter</td>
<td>30 ft.</td>
</tr>
</tbody>
</table>

**INSPECTION**

• A monthly “quick check” shall be made by a professional service or by an easily trained resident. Extinguishers shall be checked as follows:
  - Located in the proper place.
  - No obstructions to access or visibility.
  - Operating instructions are legible and facing outward.
  - Safety seals and tamper indicators are not broken or missing.
  - Fullness determined by weighing or lifting.
  - Check for obvious damage, leakage etc.
  - Pressure gauge reading or indicator is in the operable range or position.

• Inspector shall keep records of the inspection: date, problems and corrective action taken with date. Extinguishers must be maintained in operable condition at all times and repairs made quickly. Date and sign the back of the tag affixed to each extinguisher when the monthly inspection is completed.

**MAINTENANCE**

• Fire extinguishers shall be inspected, tested and maintained by a professional service at intervals of not more than one year.
• The maintenance service shall apply a tag to indicate the date of service and that tag must remain in place.
• Any extinguisher removed from service for maintenance must be replaced immediately with a similarly rated unit until the original or a new unit is installed.
• Professional service organizations must be certified and hired to perform service in accordance with the latest issue of NFPA 10.
• The service organization shall perform hydrostatic tests every few years as applicable for the specific type of extinguisher. For example, stored-pressure water, dry chemical and carbon dioxide are done every 5 years while certain other types are done at 12 years. Non-rechargeable units must be removed from service and replaced after 12 years.

DISCUSSION
• Greek housing would normally have Type A extinguishers located in these spaces at a minimum: each upper floor level in the hall near the stair, in each wing or main building area, basement, laundry area, furnace room, storage rooms, kitchen; large spaces may need two or more. The kitchen would also have a Type K unit near the stove.
• Because extinguishers are subject to vandalism, consider placing them in specially designed cabinets costing about $30 plus $15 for installation. These are available from the service company.
• Because people often evacuate during a fire, it is best to locate extinguishers near exits being sure that the distance falls within that specified above. Do not locate one too close to a specific hazard, like a stove, because it will not be reachable under fire conditions; some 10 ft. away is reasonable.
• Multiple use extinguishers are a good choice because they are effective on different type of fires. For example, ABC units good for paper, oils and electrical hazards.
• Professional service costs in 2002 are about:
  
  Service call               $18 plus below  
  Inspect units               $3.75 each  
  Test and recharge 5# ABC units   $26 each  
  Test and recharge 10# ABC units  $32 each

PROFESSIONAL SERVICE CONTRACTORS

• Albany Fire Extinguisher Service; 518-456-3700
Cooking Exhaust Hoods

REFERENCE

Building Code of New York State
NFPA 96, Ventilation Control and Fire Protection of Commercial Cooking Operations

PURPOSE

This regulation applies to all except single family residences and includes all cooking operations for the capture, containment and control of grease-laden cooking effluent.

This document is intended to be a simplified guide to assist Greek houses to comply with building codes and, as a result, excludes detail and material not deemed relevant for compliance. Refer to the above codes for special situations or to determine the requirements applicable to specific property.

GENERAL REQUIREMENTS

- A purchased system must be specified to comply with NFPA 96 and all applicable codes. Qualified contractors should know, and are then compelled to comply with, the specified codes. The below material includes some, but not all, of the required features.
- A system consists of:
  - A hood (covering the stove and fryers)
  - Grease removal devices (filters)
  - Duct system (from the hood to outdoors)
  - Fire extinguishing equipment (automatic and within the hood as well as portable)
- The fire extinguishing system consists of both fixed/automatic and portable equipment:
  - Fixed- To comply with NFPA 17, Standard for Dry Chemical Extinguishing Systems or NFPA 17A, Standard for Wet Chemical Extinguishing Systems. Note: Dry systems are no longer allowed for new installations and a wet system must be installed if the dry system is discharged or the system is due for its 6 year maintenance or hydrostatic test.
Portable- To comply with NFPA 10 for extra high hazards. See section for Portable Fire Extinguishers. Use a 6 liter Class K extinguisher placed within 30 ft. of the hood (but not too close to a potential fire so it can be reached safely). Note: When a Class K extinguisher is placed near a stove or fryer having a hood and permanent extinguishing system, there shall be a sign, approximately 7”x11”, to say something like: Warning! In case of appliance fire, use this extinguisher after the fixed suppression system has been activated.

MAINTENANCE AND INSPECTIONS

- The hood, duct and filters must be cleaned, by an approved service contractor, every 6 months.
- The system must be inspected and tested/serviced, by an approved service contractor, every 6 months.
- The cleaning/inspecting service company shall post a certificate at the equipment to state the date and what was done. Do this for both the hood cleaning and the fire suppression system service (2 certificates).

DISCUSSION

- While posting a notice near the portable fire extinguisher to advise the use of the fixed system first, it is also recommended that a notice be posted on the hood to say: Activate the hood fire suppression system before using a portable extinguisher.
- Suggest doing the service and cleaning at the beginning of each semester so it is in best condition for occupancy.
- Some contractors do cleaning and service.
- While also desirable for sanitation reasons, regular cleaning of the stove and fryer will reduce grease accumulation and fire potential. The same contractors usually will clean the hood system and kitchen equipment.
- Insurance carriers, during their inspections, will look for posted signs and certificates of service and will issue non-compliance reports if they are missing or out of date.
- Approximate costs;
  - New hood and fixed extinguishing system: $5-6,000
  - Change from a dry to wet extinguishing system: $1,800
  - Test/inspect system $ 100
  - Clean hood, filters and duct $ 220

PROFESSIONAL SERVICE CONTRACTORS

- T.E.C. Northeast, Altamont (clean and service); 518-356-3623
- Nationwide Maintenance Service, Schenectady (clean); 518-346-6868
Fire Related Construction

REFERENCE

Fire Code of New York State
Building Code of New York State

PURPOSE

To construct housing to specific specifications to control fire and allow safe egress in the event of an emergency while complying with occupancy Group R-2 of the Fire Code of New York State.

It is beyond the scope of these Guidelines to present many specific requirements for our Greek housing for many reasons:
- Codes apply differently depending upon the date of construction and code in force at that time, some sections apply regardless, sections may or may not apply depending upon the permit received when the occupancy use changed.
- Construction materials differ.
- Exceptions may be granted under appeal.
- Historic structures have modified rules.
- Codes can be interpreted differently.
- Potential determination of imminent danger may trigger action.

Except where specific requirements are noted below, House Corporations should hire code professionals to determine what is required for their specific structures.

IMPORTANT BASIC REQUIREMENTS

- Two remote means of egress (exits) are required from any room or space with an occupancy load of 11 or more (the highest of actual load or potential based on space).
- A fire-resistance rating is not required for corridors within a dwelling with an occupancy of 10 or less. For 11 or more, the rating must be 1 hr.
- Corridors within a dwelling unit must be not less than 36” wide.
- In addition to other requirements, basements and sleeping rooms below the fourth story shall have at least one exterior emergency escape and rescue opening that opens into a street, court or yard. Exception: Sleeping rooms provided with a door to a fire resistant rated corridor having access to two remote exits in opposite directions.
Means of egress conforming to the requirements of the building code under which they were constructed shall be considered as complying means of egress. (Note: This exception may not apply if Greeks assumed private residence structures and failed to get an occupancy change along with failure to make improvements required by that change.)

Egress distance limits:
- Common path: 75 ft.
- Dead end: 50 ft.
- Travel distance: 200 ft.

The means of egress shall be continuously maintained free from obstructions or impediments to full and instant use in case of emergency.

Every room or space that is an assembly occupancy (party rooms) shall have the occupant load of the room or space posted in a conspicuous place near the entrance door. The occupancy allowed is calculated on the basis of 11 SF per person. Signs shall be of approved, legible, permanent design and shall be maintained by the owner.

Minimum fire rated separations:
- Egress corridor walls: 1 hr.
- Walls between bedrooms: 1 hr.
- Bedroom doors w/hardware, and self-closing and self-latching features: ¾ hr.
- Interior stairs, up to 3 floors, including space below stairs: 1 hr.

Decorations and trim
- Curtains, draperies, hangings and other decorative trim must be non-combustible, comply with NFPA 701 and meet the Fire Code of New York State, Section 805.2 applying to dormitories in Group R-2.
- Interior finish and decorative materials must meet allowable flame spread and smoke development ratings based upon occupancy classification and location. For unsprinklered buildings:
  - Rooms and enclosed spaces: Class B meeting flame spread 26-75 and smoke index of 0-450.
  - Corridors, vertical exits and all exit ways: Class C with flame spread 76-200 and smoke index of 0-450.

Exception: Materials with a thickness less than 0.036” (0.9 mm) applied directly to the surface of walls and ceilings.
- Cellular or foam plastics are not allowed; see Section 806.1.2 for exceptions.
DISCUSSION

- The codes also include, but are not limited to, the following issues: occupancy loading that determines the sizing of egress features, door sizes and number, locks and latches, panic and fire exit hardware, ramps, number of exits from a room or space, corridor construction, signs and lights, placement of fire partitions and fire walls, egress travel distances, subdivision of building spaces.
- Fraternities and sororities are included in occupancy Group R-2 in the Fire Code of New York State.
- Most of the Greek owned housing will fall into the category of existing structures, unsprinklered, which is the focus of this document. New construction has some different requirements.

Buildings in existence at the time of this code adoption shall be permitted to have their existing occupancy or use continued provided that such occupancy or use was legal at the time of adoption. Note: Greek houses may have been acquired, had occupancy changes or had modifications made without proper approvals and permits in which case “grandfathering” is void.

Chapter 34 of the Building Code of New York State applies to Existing Structures and their Rehabilitation, Repairs, Renovations, Alterations, Reconstruction, Change of Occupancy, Additions, Historic Buildings and Relocated Structures under Appendix K. In general, these activities require compliance with the new codes in the areas affected; there are some modifiers however.

- A one hour fire rated partition can be achieved with: 2”x4” wood studs at 24” cc with 5/8” type “x” sheet rock on both sides; or, 16 ga. steel studs at 24” cc with 5/8” type “x” sheet rock on both sides.
- A two hour fire rated partition rating can be achieved with: 2”x4” wood studs at 16” cc with 2- ½” type “x” sheet rock on both sides; or, 16 ga. steel studs at 25” cc with 2- ½” type “x” sheet rock on both sides.
- Most required fire rated walls are “partitions” or “barriers” that are built from floor to roof or bottom of the next level up. “Fire walls” are more important separations for major sections of a building; it includes a wall of proper design for the rating that extends 4 ft. above the roof level on either side and is independent from the structure on either side such that the failure and collapse of either side will not affect the fire wall. Small residences seldom have fire walls.
- Self closing features for bedroom doors can be achieved with spring loaded hinges.
General Safety

REFERENCE

Fire Code of New York State
Building Code of New York State
NFPA 70, National Electric Code

PURPOSE

To identify best practices and avoid fire and accidents due to the most common routine activities and situations. This is not represented to be inclusive of all requirements and best practices.

REQUIREMENTS

- Comply with all laws and regulations that apply.
- Do not modify, drill, paint fusible links and labels or tamper with fire doors. (It adversely affects their operation and fire rating.)
- Flammable liquids (like oil, oil paint, solvents and gasoline etc.) shall not be kept in the main building. If small amounts are necessary indoors, they shall be stored in U.L. fire rated cabinets designed for that purpose.
- The following are banned: halogen lights (intense heat causes fires), candles (except temporary for ritual purposes), open flame devices (except permanent gas stoves) and space heaters (unless temporarily needed and deemed safe by the House Corporation). Smoking should be banned within the building; however, if necessary, it should be limited to a designated safe approved smoking room.
- All fire doors shall be kept closed (unless of an approved type with hold open devices and automatic release) and not blocked.
- Exit routes, walking surfaces and corridors shall be kept clean of obstruction and debris and in good repair.
- All broken windows or glass in doors, light fixtures etc. must be promptly repaired.
- Rooms, especially bathrooms and kitchens, shall be kept sanitary, clean and free of mildew and mold (a major cause of illness and building condemnation).
- There shall be no padlocks, or other devices, on emergency exits that will inhibit immediate exit use from the inside.
- All house areas shall be kept clean of all unnecessary junk, debris, normally unused furniture etc. Any necessary stored materials to be stacked neatly and not inhibit exit routes or fire fighting efforts.
• If required by the local fire authority, a key box (containing all room keys and a map showing locations) shall be installed outside the front entrance to allow emergency access to all areas of the house. An access key to the box shall be given to the appropriate authorities.

• There shall be no storage, tools etc. in the furnace or power service rooms except it is allowed in rooms with just a power panel. Access to the panel shall not be blocked.

• Electrical-
  • Cover plates must be on all outlets, switches and junction boxes.
  • There shall be no excessive use, or overloading, of extension cords.
  • Ground fault protection is required on all outlets in bathrooms and other potentially wet locations.
  • No exposed wiring or light fixtures dangling from wiring is allowed.
  • All electrical work must be done by licensed electricians or pass an inspection by the City of Troy.

• Barrels, dumpsters and other trash containers shall be emptied frequently and kept covered (to avoid odors and vermin). Trash shall not be allowed to overflow out of the container storage.

• Persons are not allowed on building roofs except as necessary for maintenance.

• Stairs and railings shall be kept in good repair.

• Snow and ice shall be cleaned from building exits and main sidewalks quickly after snowfall and all sidewalks on the property shoveled within 24 hours of the end of the snow storm.

• Loft construction must comply with Rensselaer rules for lofts; available at the Residence Life Office.
Food Service Sanitation

REFERENCE

New York State Dept. of Health, State Sanitary Code for Food Service Establishments
United States Public Health Services, Food and Drug Administration Food Service Code
Section for Vermin Control

PURPOSE

To protect the health and well being of Greek members, living in houses that provide food service, through the use of proper facilities, materials and practices.

This document is intended to be a simplified guide to assist Greek chapters to comply with applicable codes and best practices and, as a result, excludes detail and material not deemed relevant or applicable for compliance. Refer to the codes to determine all the requirements for specific situations.

A Food Service Establishment permit is not required. Fraternities are excluded “as food service operations where a distinct group mutually provides, prepares, serves and consumes the food such as……club or fraternal organizations.” In permitted facilities, the health authority can determine an imminent health risk and can force the food service to be stopped. In the case of our Greek organizations, Rensselaer is given that authority and responsibility and would be assumed to use recognized food service regulations as a basis of evaluation.

The objective is to avoid situations that present an imminent hazard to health. The “requirements” are recognized practices that help to achieve that objective.

REQUIREMENTS

FOOD SOURCE

• All foods shall be from sources approved or considered satisfactory by the health authority and shall be clean, wholesome, free from spoilage, free from adulteration and misbranding and safe for human consumption.
FOOD PROTECTION

- All food shall be protected from contamination.
- All perishable food shall be stored at such temperatures as will protect against spoilage.
- All potentially hazardous foods shall be maintained at safe temperatures (45 degrees F or below or 140 degrees F or above) except during periods of preparation.
- Raw fruits and vegetables shall be washed before use.
- Stuffing, poultry, stuffed meats and poultry, and pork and pork products shall be thoroughly cooked before serving.
- Only such poisonous and toxic materials as are required to maintain sanitary conditions and for sanitizing purposes may be used or stored in kitchens or pantries and then only if kept in their original containers.
- Specific rules-
  1. Have and use calibrated, sanitized thermometers for cooking and checking the refrigerator/freezer temperatures. Recommend permanently keeping thermometers in each section of a refrigerator.
  2. Refrigerated and frozen foods to be similarly stored within one hour of delivery or purchase.
  3. For cooking, minimum internal temperatures must register on a thermometer for 15 seconds:
     - 165 degrees F- poultry (solid and ground), stuffed foods (meat, poultry, seafood, pasta etc)
     - 155 degrees F- all ground meats, pork and game
     - 145 degrees F- veal, lamb, other red meats, seafood, shell eggs, pasteurized egg dishes
     - 140 degrees F- convenience foods (foods commercially prepared)
     - 135 degrees F and held for 45 minutes- roast beef
  4. Thaw foods under refrigeration, not at room temperature. Emergency procedure: under cold running water or in microwave followed by immediate cooking.
  5. Keep food at room temperature, for preparation, no longer than 40 minutes.
  6. Hot food to be held/served at 140 degrees F or above.
  7. Cold food to be held/served at 40 degrees F or below.
  8. Food prepared for later use or left over after a meal- cool properly from 140 degrees F to 70 degrees F within 2 hours and then to 40 degrees F within an additional 2 hours. (This is critical and is the source of most illness!) To achieve this:
     - Place in shallow containers; depth of food not to exceed 2-3”.
     - Use ice bath when possible.
     - Stir to speed cooling.
     - Place in refrigerator uncovered (but protected from contamination) for remainder of cooling period (then cover).
  9. Reheating foods- reheat rapidly (within 2 hrs) to 165 degrees F or above. Reheat food only once.
10. Refrigerator temperature shall be 40 degrees F or below.

11. Storing foods in a refrigerator-
   - Top- ready-to-eat foods
   - Middle- unwashed produce
   - Bottom- raw meat, poultry, seafood, eggs

12. Preparing and serving foods-
   - Keep raw foods separate from ready-to-eat foods during preparation.
   - Use separate utensils for each food item during preparation and serving.
   - Use different cutting boards for different types of food to prevent cross contamination. For example:
     - Red for raw foods of animal origin
     - Green for washed raw fruits and vegetables
     - White for ready-to-eat foods
   - The red board to be cleaned and sanitized between different foods.
   - Cutting boards to have no cracks, deep grooves or discoloration and shall be stored vertically for quick drying.
   - Cutting boards should be made of plastic for the purpose.

13. Never serve or eat raw eggs.

FOOD SERVICE PERSONNEL

- Any person while affected with any disease in a communicable form, or while a carrier of such disease, or while afflicted with boils, infected wounds, sores or an acute respiratory infection shall not work in any food service capacity. Hand cuts and sores can be well covered with bandages and gloves.
- Shall wear clean garments, maintain a high degree of personal cleanliness and conform to hygienic practices while on duty.
- Shall wash hands thoroughly (20 seconds minimum with soap and hot water) before starting work and as necessary to remove soil and contamination and after using the toilet.
- Shall be trained as to the proper conduct and, at the minimum, be given a copy of this document. A copy, or its equivalent, shall be posted in the kitchen for easy reference.
- Specific rules:
  - Wash hands after- using the restroom, handling raw meats and produce, handling different kinds of foods, coughing/sneezing/blowing nose, eating/drinking/smoking, cleaning, handling chemicals or dirty equipment and handling trash.
  - Aprons and towels are not to be used to dry hands. Use paper towels and dispose of them.
  - Fingernails to be trimmed and clean.
  - The food preparation sink and pot sinks are not to be used for handwashing.
  - Latex or rubber gloves to be used when handling ready-to-eat foods (not necessary for foods that will be cooked) and: change gloves when worn, dirty and before starting another job, remove gloves when going to the bathroom or leaving the area and wash hands before putting on gloves.
  - Hats, caps or hair nets are recommended to avoid hair in foods.
FOOD EQUIPMENT AND UTENSILS

- Shall be designed to be smooth, easily cleanable and durable and in good repair.

CLEANLINESS OF EQUIPMENT AND UTENSILS

- All preparation, eating and cooking utensils, counters and equipment shall be thoroughly washed, rinsed and sanitized soon after each usage.
- Cooking surfaces of equipment (grills, griddles etc.) shall be cleaned at least once a day. This does not apply to hot oil cookers.
- Non-food contact surfaces of equipment shall be cleaned at intervals to keep them clean and sanitary.
- The use of sponges and dishcloths is discouraged (they are the most contaminated place in the kitchen). Suggest using paper towels. If sponges and dishcloths are used, sanitize them daily (in a commercial sanitizing agent) or microwave them damp for 5 minutes on high.
- Sanitizing solution must be prepared in the correct concentrations (bleach is not allowed).
- Food equipment and preparation services shall be kept free of accumulations of dust, dirt, grease, food particles and other debris.
- Tableware and utensils can be cleaned in proper automatic dishwashers or by hand using a three compartment sink:
  - Wash in the first with hot water and detergent.
  - Rinse in the second in clean hot water.
  - Sanitize in the third with a sanitizing agent added to hot water.
- The procedure must clean and sanitize the articles so as to produce an average plate count of not more than 100 colonies on the surface of the utensil examined with no coliform bacteria in concentrations recommended by the manufacturer.
- All equipment and utensils etc. to be air dried after sanitizing.
- Wiping cloths can be used for three purposes: cleaning spills and drippage from serving utensils and surfaces, cleaning food contact surfaces and cleaning non-food contact surfaces. They should be kept separate to prevent cross contamination.

TOILET FACILITIES

- Provide a clean, properly equipped toilet facility convenient to the food preparation area. Doors to be self closing (this can be done with spring loaded hinges or a door closer).

HAND WASHING FACILITIES

- To be provided within the food preparation area and in the rest room and be equipped with hot and cold running water, hand cleansing soap or detergent, sanitary towels or hand drying devices (hot air blowers) and a covered trash container.
- Preferably, the hand washing sink should not be used for any other purpose.
GARBAGE AND RUBBISH DISPOSAL

- All garbage and rubbish containing food wastes shall, prior to disposal, be kept in covered, leak-proof, non-absorbent containers. When stored in a special vermin proof room or enclosure covers are not required.
- All refuse to be removed and disposed of with sufficient frequency and manner to prevent a nuisance.

VERMIN CONTROL

- Effective measures shall be taken to protect against the entrance into the building and the breeding or presence on the premises of vermin.
- Refer to the section on “Vermin Control”.

FLOORS, WALLS AND CEILING

- All kitchens and food storage areas to be constructed of smooth, non-absorbent materials and be easily cleanable. Dry food storage need not be non-absorbent.
- Surfaces to be kept clean and in good repair.
- Floor drains to be provided when floors are subject to flooding-type cleaning.
- All walls shall be easily cleanable and have washable surfaces up to the potential splash height (about 4 ft.).

LIGHTING

- Shall be sufficient to observe surfaces and conduct good cleaning.

HOUSEKEEPING

- All food storage and preparation areas to be kept clean, neat and free from litter and rubbish.
- Cleaning operations shall not contaminate food contact surfaces.
- Soiled linens, aprons etc shall be kept in suitable containers.
- Trash containers shall be emptied regularly and be covered.

INSPECTIONS AND TRAINING

- A sanitation program will not be effective unless regular inspections are made and deficiencies corrected.
- Each chapter shall designate a responsible person to become trained in these procedures and who will conduct a monthly observation of a dinner preparation/audit, take action to correct deficiencies and keep on file (for review by others) a copy of the last 12 months audits and follow-up actions. This person shall attend any training sessions conducted by Rensselaer and/or the AIGC and train all persons who will work in food preparation or cleaning of the facilities.
DISCUSSION

- If care is not taken, food can have fecal coliform, salmonella, shigella or other pathogenic microorganisms or their toxic products. Fish can contain spores of clostridium botulism. Other diseases such as colds, flu and mononucleosis can also be spread.
  - Salmonella- has flu like symptoms, can lead to intestinal infections and typhoid fever.
  - Clostridium botulism- signs are marked lassitude, weakness, vertigo, double vision and difficulty speaking and swallowing. Causes severe food poisoning and has a high mortality rate.
  - Mononucleosis- symptoms are tiredness, fever, headaches, muscle ache, sore throat and swollen neck glands. It is a viral infection often with no special symptoms. Can inflame the liver and enlarge the spleen which can rupture.
  - Fecal coliform- causes fever, nausea, stomach cramps leading to typhoid fever, hepatitis, gastroenteritis, dysentery and ear infections.
  - Shigella- causes diarrhea, fever, nausea, vomiting, stomach cramps, constipation, stool may have blood/mucus/pus. Can last for weeks.
- Suppliers of kitchen equipment:
  - Buffalo Hotel Supply, Albany, 1-888-838-8020
  - Maintenance/Schenectady Restaurant Supply, Schenectady, 518-393-2183
- Approximate costs of selected recommended items:
  - Color coded high density polyethylene cutting boards $20-35
  - Thermometers- cooking $25
    - refrigerator/freezer $8
    - oven $10
  - Polyethylene food service gloves $15/1000
  - Stainless steel three bowl sink $1,200 plus install
- Supplier of cleaning supplies, agents and sanitizing solutions-
  - Echo Lab, Latham 1-800-352-5326
  They have a complete assortment of required supplies and can design a system specifically for each location complete with the metering of liquid agents. They have written procedures for the cleaning of all kitchen equipment and surfaces as well as for toilet areas.
Vermin Control

REFERENCE

Section for “Food Service Sanitation”

PURPOSE

To protect the health and well being of Greek members, living in Greek managed housing, by eliminating or reducing vermin within the food preparation and other areas of the facility.

This document is intended to be a simplified guide to assist Greek chapters to comply with applicable codes and best practices and, as a result, excludes detail and material not deemed relevant or applicable for compliance. Refer to codes to determine all the requirements for specific situations.

REQUIREMENTS

- Housing and food preparation areas must have construction and practices that assure the absence and control of common vermin including: rodents, flies, carpenter ants, termites, spiders, box elder beetles, pavement ants, millipedes, sow bugs, earwigs, centipedes, bees, roaches and others. Flies, rodents and roaches are of particular concern around food and cooking areas while termites and carpenter ants can cause significant structural damage.

DISCUSSION

- It is highly unlikely that Greek residents can adequately control such vermin by their own efforts so it is recommended that a licensed pest control contractor be hired to regularly inspect and treat the building.
- The normal contract requires them to do a comprehensive first inspection with immediate treatment followed by a second inspection and treatment a month later. Thereafter they inspect and treat bi-monthly unless unusual problems exist. While quarterly visits are normal in single family residences, Greek housing is more commercial and requires more attention.
- Because many insects are sensitive to temperature and moisture (being seasonal), the technicians look for and treat the different species at different times of the year.
- They first address a problem by baiting. If that is not successful they begin crack and crevice pesticides.
• It is advisable for a resident to accompany the technician to see the problems identified, verify treatment and learn how to reduce the problem.

• The control of flies is critical in food preparation areas since they are carriers of disease. All windows in these areas are to have screens and closed doors to control fly access.

• Vermin control contractor cost estimate:
  - Initial evaluation and treatment $250-350
  - Bi-monthly inspections and treatments $60 each
  - Termite treatment is extra

SERVICE CONTRACTORS

• Terminex International, Albany 518-456-0236
Automatic Sprinklers

REFERENCE

Building Code of New York State
Fire Code of New York State
NFPA 13R Sprinkler Systems

PURPOSE

To automatically extinguish fires in their incipient stage before large areas of the building become involved. Automatic fire extinguishers are the most effective method of protecting a facility.

REQUIREMENTS

- New Group R2 occupancy (fraternities and sororities) construction requires the installation of automatic sprinklers.
  - Installation must comply with NFPA 13R Sprinkler Systems which is a modified NFPA 13 (for ordinary hazards) to make residential group installations more affordable (up to four floors).
  - CPVC plastic piping is allowed.
  - Water supply must satisfy the activation of four sprinkler heads.
  - All areas are to be protected.
  - Quick response sprinkler heads must be used.
  - If water flow is adequate, a combination domestic and fire water service can be used.

DISCUSSION

- At the current time existing structures without sprinklers, that were legally approved at the time of construction or occupancy change, are not required to add sprinklers. However, fire losses are encouraging some states to make them mandatory and we should expect that requirement in the future.
- Even without a legal requirement, sprinklers are so effective in saving lives that Greek chapters should strive to install them at the earliest date.