

# Duke University

## Campus Fire Safety Right-to-Know Act

### 2016 Annual Fire Safety Report

#### **PURPOSE**

This annual report is submitted to meet the federal requirements of the Campus Fire Safety *Right-to-Know Act*, an amendment to the *Higher Education Opportunity Act*. It includes information about campus fire safety policies and procedures as well as reported campus fire statistics.

A printed report is available by visiting the OESO Fire & Life Safety Division, 2424 Erwin Road, Hock Plaza I, Suite 204, Durham, NC 27705 or by calling (919) 684-5609.

View the Annual OESO Fire & Life Safety Division Report for 2016:

[Annual Fire Safety Report 2016](#)

View the Annual Clery Campus Security Report for 2017:

[Annual Clery Campus Security Report October 2017](#)

#### **FUNCTION**

The primary function of the Occupational and Environmental Safety Office (OESO) Fire & Life Safety Division is to ensure the safety of members of the Duke University & Duke University Health Systems community and the continuity of the university's mission by establishing optimal fire safety and fire emergency programs.

# **POLICIES AND PROCEDURES**

## **FIRE ALARMS AND EVACUATION**

In the event of a fire, the most important thing is for you to evacuate the building safely. Make sure you familiarize yourself with the evacuation routes in your area.

Fire emergency response is defined by the acronym: **R.A.C.E.**

**IF YOU DISCOVER A FIRE, SEE A FLAME OR SMOKE**, follow the RACE procedures:

- R** = Remove all persons in immediate danger to safety.
- A** = Activate manual pull station AND call or have someone call **911**.
- C** = Close doors and windows to prevent the spread of smoke and fire.
- E** = Extinguish the fire (if you are able) AND/OR Evacuate.

Never assume that a fire alarm is a drill or false alarm. Remain calm and evacuate the facility. Evacuation is mandatory for all individuals when the fire alarm is sounding. Anyone who fails to evacuate may face disciplinary action. Remember to follow the instructions of the emergency responders. Do not re-enter the facility until authorized. If you have any information regarding the alarm, present that information immediately to the responding emergency personnel.

Persons evacuating the building should report to their assigned Emergency Assembly Point(s), as directed by their supervisor or Residential Advisor/Coordinator.

## **UPON DISCOVERY OF A FIRE**

Report all fires and smoke to Duke University Police Department by dialing 911 from any campus phone. If dialing from a personal cell phone or an off campus telephone within Durham, the call will immediately reach the Durham Emergency Communications Center. The caller should first state they are on Duke Campus and then state the building name. In either case, each agency has instant communication with the other and calls can be immediately transferred from one to the other. Fires that have been extinguished should also be reported to Duke Police so that an investigation may be conducted. All residential building fires should also be subsequently reported to the Housing Office: East 919-684-5320, Central 919-684-5813, and West 919-684-5486.

If you feel comfortable doing so, use a fire extinguisher to control or extinguish the fire while emergency personnel are en route to your location

## **WHEN THE FIRE ALARM SOUNDS**

Close all windows and doors (leave the overhead light ON).

Before opening any door, feel the surface. If it is HOT, do not open it. If it is not hot, brace yourself against the door, open it slightly, and if heat or heavy smoke are present, close the door and stay in your room.

If you cannot leave the room, open the window, hang a sheet or other light colored object out of the window to attract the attention of emergency personnel, and then close the window. If there is a phone in the room, call 911 (see above section

for specific instructions) and report that you are trapped. Remain calm and give your room number and building location. Stuff towels, sheets or similar materials under all doors leading into corridors. Stay close to the floor if smoke enters the room.

If conditions allow you to leave the room, close, but do not lock, the door and walk directly to the nearest exit and leave the building.

If you are away from your room when the alarm sounds, do not return to your room, but leave the building via the nearest exit.

DO NOT use elevators. If hallways and/or exit stairwells are not accessible because of heavy smoke, return to your room and close the door. Open the window, hang a sheet or other light colored object out of the window to attract the attention of emergency personnel, and then close the window. If there is a phone in the room, call 911 (see above section for specific instructions) and report that you are trapped. Remain calm and give your room number and building location. Stuff towels, sheets, or similar materials under all doors leading into corridors. Stay close to the floor if smoke enters the room.

If you have exited the facility, stand clear of the building and report to your designated Emergency Assembly Point. Emergency apparatus may be maneuvering around the building.

Follow the directions of fire and police personnel and NEVER re-enter the building until they give permission to do so.

## **WITHIN STUDENT HOUSING FACILITIES**

### ***ELECTRICAL WIRING / APPLIANCES***

Tampering with electrical wiring, including but not limited to the installation of direct-wired ceiling fans and unauthorized entry into electrical panel boxes is prohibited. Residents are responsible for any damages caused by electrical appliances that are not owned by Duke University.

All electrical appliances shall be UL approved and maintained in good condition. Numerous electrical devices plugged into one outlet through an outlet cube or extension cord may cause a circuit overload or may cause overheating of the electrical appliances, resulting in a fire. Therefore, the use of outlet cubes or extension cords is prohibited. Use a power strip, with a built-in circuit breaker.

Heat producing appliances (e.g. coffee pots, steam irons, hair curling irons, etc.) should never be plugged into multi-plug adaptors, extension cords or power strips and should never be left unattended.

### ***SMOKING***

Duke University seeks to preserve a living and working environment supportive of behaviors that contribute to the physical health and well-being of all community members. Smoking any substance is not permitted in any university building, including student housing. Smoking is not permitted anywhere on the Duke Health Campus.

### ***OPEN FLAMES***

Unless authorized and approved, it is a violation of university policy to ignite any material on campus. Candles, other open flame devices, grills, incense, and any other flame/heat producing items are strictly forbidden for use inside university facilities except during official religious ceremonies, such as the observance of Chanukah. Permission for use of any open

flame devices (including those used for religious ceremonies) must be obtained from OESO Fire & Life Safety Division prior to use. A copy of the signed approval letter must be maintained at the location approved for an open flame device.

Students will be held financially accountable for any damage they or the open flame device causes as a result of violating this policy and will be referred to the disciplinary process.

### **SPECIAL EVENT PROCEDURES – OESO FIRE & LIFE SAFETY DIVISION**

This program improved dramatically since the inception of the Special Event Operating Instruction. OESO Fire & Life Safety Division staff works closely with other campus groups to ensure safety and compliance for over 60 campus events during this calendar year. OESO Fire & Life Safety Division employees attend numerous events including athletic games and Chapel functions to ensure compliance with the NC Fire Code - specifically, overcrowding, maintaining clear aisle and egress paths, and providing instant response in the event of a fire alarm activation.

## **EMERGENCY RESPONSE**

### **INCIDENT REPORTING AND RESPONSE**

Students, employees, and visitors must immediately report any fire or other emergency directly to Duke Police.

Likewise, if a member of the Duke community finds evidence of a fire that has been extinguished, and the person is not sure whether Duke Police has already responded, the community member should immediately notify Duke Police to investigate and document the incident.

For non-emergency calls to Duke Police, dial 684-2444. We encourage students and employees to put this non-emergency number into their cell phones as a speed dial entry.

There is also a mobile app called Duke LiveSafe which provides quick call access to emergency contact information for 911 and Duke Police, as well as the ability to send a text message to Duke Police.

### **OESO FIRE & LIFE SAFETY DIVISION -FIRE EMERGENCY RESPONSE PLAN ("10-80")**

The OESO Fire & Life Safety Division established a fire emergency program which augmented the university's capabilities to better protect students, staff, faculty, and visitors. OESO Fire & Life Safety Division staff monitor emergency radios and respond to fire alarm and fire emergency situation calls on campus, including clinics, research buildings, and the hospital. The goal is to provide assistance to responding police and fire units in the early minutes of an emergency as needed to save lives and protect university assets. Staff members are trained to monitor radio traffic and read a fire alarm panel. For incidents after normal working hours, Duke Police will contact appropriate on-call personnel. The program has been active and successful and will be continued for the upcoming year.

The major benefit of this program is that early arrival at an emergency can reduce human injury and minimize university losses. In many instances, the OESO Fire & Life Safety Division staff provides initial vital information before the arrival of emergency services (which can take 5-10 minutes). The staff works closely with Duke Police and the Durham Fire Department and has established a close collaboration with those groups.

## **MARINE LAB / OFF CAMPUS LOCATIONS**

OESO Fire & Life Safety Division staff educates the Duke University Marine Lab (DUML) employees on fire and emergency procedures including annual hands-on fire extinguisher training. The specialized training for the Marine Lab's staff is necessary in the event of a building emergency or wildfire that may threaten the Duke University Marine Lab facilities where emergency assistance may be minimal, delayed, or unavailable. OESO Fire & Life Safety Division staff also conducts annual fire safety surveys and fire drills on all residential DUML buildings. DUML staff conducts drills during the remainder of the year.

## **TRAINING AND EDUCATION**

### **STUDENT TRAINING**

OESO Fire & Life Safety Division staff continues to provide extensive training to students on several fronts. Our sustained presence on the grounds and in the dormitories during freshmen move-in was successful as over 1700 incoming students and countless family members received OESO Fire & Life Safety Division brochures and memorabilia, allowing all to learn about the codes and policies in place to protect them.

Education continues during fire drill training and throughout the year when OESO Fire & Life Safety Division reviews special conditions and requests.

### **FIRE DRILL TRAINING**

OESO Fire & Life Safety Division staff conducts four student housing fire drills per year (two each semester). They go on site to conduct all aspects of the drills, including observation, evaluation and documentation. The standard procedure entails activating the fire alarm system, usually by engaging a student volunteer to use a manual pull station.

All students, faculty, staff, and visitors must exit the building and meet at the Emergency Assembly Point (EAP). Occupants are then briefed on their performance of evacuating the building, ways in which to improve said evacuation, how to activate a pull station, what to do in the event of a real fire, and how to use a fire extinguisher.

There were 250 student housing fire drills conducted in 2016, including four drills at the Marine Lab.

OESO Fire & Life Safety Division maintains formal documentation of all campus fire drills.

### **ADDITIONAL TRAINING INFORMATION**

The OESO Fire & Life Safety Division web site home page also provides pertinent facts related to fire and life safety. Information ranges from guiding principles to programs and policies. Our staff is readily available to review and answer any questions or concerns.

### **OESO FIRE & LIFE SAFETY DIVISION STAFF ADVANCED EDUCATION**

OESO Fire & Life Safety Division staff continues to enhance their skills, qualifications, and competencies through advanced continuing education opportunities. Staff received training in Fire Inspector Level III certificate maintenance, Fire Officer I and II, Fire Protection Law, Hydraulics and Water Distribution, Fire Service Supervision, Child Passenger Safety, Live Fire Burn, Plan Review, FM Global Hot Work, Fire Safety with Flammable Liquids, Wireless Fire Alarm Systems, and attended the

13<sup>th</sup> Annual Campus Fire Safety & Emergency Management Conference. They also participated in multiple webinars on various topics including Disaster Resiliency, Elevator Control Interface with Fire Alarm and Sprinkler Systems, Mass Notification, Creating a Culture of Safety, Lithium Ion Battery Systems, NFPA 72, Active Shooter Preparedness, Fire & Life Safety Code Changes by CMS for Healthcare, Strategic Business Continuity Management, Impact of Fire Extinguisher Agents on Cultural Resource Materials, Advanced Smoke Detection Innovations (Aspirated Smoke Detection), and ongoing maintenance of North Carolina Crowd Manager Training. Staff shares courses by way of in-house in-service training sessions.

**FIRE EXTINGUISHER TRAINING PROGRAM**

The already successful fire extinguisher program continues to excel. The program enhances the ability to reasonably ensure that fire extinguishers are in place and in proper working order should the need for one arise. OESO Fire & Life Safety Division manages a very large fire extinguisher inspection program for over 7,600 extinguishers. Duke has also adopted the electronic fire extinguisher monitoring system in some newer facilities.

In addition to the live fire hands-on simulation equipment, a video simulator allowed for training during inclement weather. During the calendar year, a total of 885 persons received hands-on fire extinguisher training with either the live or video training systems.

Fire extinguisher training is available to all students, staff, and faculty. OESO Fire & Life Safety Division staff conducts numerous training sessions throughout the year. All documentation for inspections and hands-on training is located at the OESO Fire & Life Safety Division office.

All students, staff and faculty are encouraged to utilize the Duke method of reporting a fire and using a fire extinguisher using the acronyms RACE and PASS respectively.

**RACE** = Remove all persons from danger; Activate the manual pull station and dial 911; Close all doors and windows; Extinguish the fire and/or Evacuate the building.

**PASS** = Pull the pin; Aim the nozzle at the base of the fire; Squeeze the handle; Sweep from side to side.

**Table 1 - Fire Extinguisher Training Sessions with the Number of People Trained – 2016**

	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec
Health System	13	10	18	0	77	42	51	14	16	23	22	10
University	9	6	69	30	35	64	0	19	121	191	45	0
Total Classes	3	1	2	2	4	6	3	2	4	8	4	1

# **FIRE SAFETY SYSTEMS**

## **STUDENT HOUSING FIRE SAFETY EQUIPMENT**

Each student housing area is equipped with fire extinguishers in the corridors, kitchens, and laundry rooms.

The fire alarm pull stations are located by each required exit and stairwell door. All corridors are protected by automatic smoke detectors tied directly into the building fire alarm system. An activation of the fire alarm system will annunciate the notification devices: horns/strobes or voice evacuation, as well as automatically notify Duke Police.

In addition to the corridor smoke detectors, residents' rooms are protected by several different methods. Bell Tower, Few, Keohane, the renovated sections of Kilgo, and Smart House are equipped with system smoke detectors tied into the monitored fire alarm system. Blackwell and Randolph have stand-alone direct wired AC/DC powered smoke detectors which are not monitored. Central Campus Apartments have integrated monitored wireless fire alarm systems. All other student housing areas are equipped with battery powered smoke detectors which are tested and maintained annually.

The following student housing areas are also protected by an automatic sprinkler system: Bell Tower, Blackwell, East Residence Hall, Epworth, Few, Jarvis, Keohane (4A, B, D & E), Kilgo, Randolph and Smart House. The sprinkler system is tested each quarter.

(See Table 2 for complete dormitory-specific fire safety systems features)

**Table 2 – Student Housing Fire Safety System Features**

<b>Building Name</b>	<b>Address</b>	<b>Sprinklered</b>	<b>Fire Extinguishers</b>	<b>Fire Alarm</b>	<b># of Fire Drills</b>
Alspaugh	1344 Campus Dr.	No	Yes	Yes	4 Annually
Bassett	1332 Campus Dr.	No	Yes	Yes	4 Annually
Bell Tower	40 Brodie Gym Dr.	Yes	Yes	Yes	4 Annually
Blackwell	51 Brodie Gym Dr.	Yes	Yes	Yes	4 Annually
Brown	1328 Campus Dr.	No	Yes	Yes	4 Annually
Craven Quad	440 Chapel Dr.	No	Yes	Yes	4 Annually
Crowell Quad	315 Towerview Dr.	No	Yes	Yes	4 Annually
East Residence Hall	1312 Campus Dr	Yes	Yes	Yes	4 Annually
Edens 1A	419 Towerview Dr.	No	Yes	Yes	4 Annually
Edens 1B	415 Towerview Dr.	No	Yes	Yes	4 Annually
Edens 1C	423 Towerview Dr.	No	Yes	Yes	4 Annually
Edens 2A	113 Edens Dr.	No	Yes	Yes	4 Annually
Edens 2C	117 Edens Dr.	No	Yes	Yes	4 Annually
Edens 3A	109 Edens Dr.	No	Yes	Yes	4 Annually
Edens 3B	105 Edens Dr.	No	Yes	Yes	4 Annually
Epworth	2 Epworth La.	Yes	Yes	Yes	4 Annually
Few Quad	420 Chapel Dr.	Yes	Yes	Yes	4 Annually
Giles	1352 Campus Dr.	No	Yes	Yes	4 Annually
Gilbert-Addoms	1638 Campus Dr.	No	Yes	Yes	4 Annually
Jarvis	1360 Campus Dr.	Yes	Yes	Yes	4 Annually
Keohane 4A	101 Wannamaker Dr.	Yes	Yes	Yes	4 Annually
Keohane 4B	101 Wannamaker Dr.	Yes	Yes	Yes	4 Annually
Keohane 4D	101 Wannamaker Dr.	Yes	Yes	Yes	4 Annually
Keohane 4E	427 Towerview Dr.	Yes	Yes	Yes	4 Annually
Kilgo Quad	104 Union Dr.	Yes	Yes	Yes	4 Annually
Pegram	1340 Campus Dr.	No	Yes	Yes	4 Annually
Randolph	50 Brodie Gym Dr.	Yes	Yes	Yes	4 Annually
Southgate	1400 W. Main St.	No	Yes	Yes	4 Annually
Smart House	1402 Faber St.	Yes	Yes	Yes	4 Annually
Wannamaker	102 Wannamaker Dr.	No	Yes	Yes	4 Annually



<b>Building Name</b>	<b>Address</b>	<b>Sprink- lered</b>	<b>Fire Extinguishers</b>	<b>Fire Alarm</b>	<b>Smoke Detectors</b>	<b># of Fire Drills</b>
Central Campus Apts	1700 Pace St	No	Yes	Yes	Yes	4 Annually
Central Campus Apts	1708 Pace St	No	Yes	Yes	Yes	4 Annually
Central Campus Apts	1712 Pace St	No	Yes	Yes	Yes	4 Annually
Central Campus Apts	1809 Erwin Rd*	No	Yes	Yes	Yes	2 Annually
Central Campus Apts	1901 Erwin Rd	No	Yes	Yes	Yes	4 Annually
Central Campus Apts	1905 Erwin Rd	No	Yes	Yes	Yes	4 Annually
Central Campus Apts	1907 Erwin Rd	No	Yes	Yes	Yes	4 Annually
Central Campus Apts	1909 Yearby Ave	No	Yes	Yes	Yes	4 Annually
Central Campus Apts	1911 Erwin Rd	No	Yes	Yes	Yes	4 Annually
Central Campus Apts	1911 Yearby Ave	No	Yes	Yes	Yes	4 Annually
Central Campus Apts	1913 Erwin Rd	No	Yes	Yes	Yes	4 Annually
Central Campus Apts	1914 Lewis St	No	Yes	Yes	Yes	4 Annually
Central Campus Apts	1915 Erwin Rd	No	Yes	Yes	Yes	4 Annually
Central Campus Apts	1915 Yearby Ave	No	Yes	Yes	Yes	4 Annually
Central Campus Apts	2011 Yearby Ave	No	Yes	Yes	Yes	4 Annually
Central Campus Apts	2015 Yearby Ave	No	Yes	Yes	Yes	4 Annually
Central Campus Apts	201 Alexander Ave*	No	Yes	Yes	Yes	2 Annually
Central Campus Apts	202 Alexander Ave*	No	Yes	Yes	Yes	2 Annually
Central Campus Apts	204 Alexander Ave*	No	Yes	Yes	Yes	2 Annually
Central Campus Apts	205 Alexander Ave*	No	Yes	Yes	Yes	2 Annually
Central Campus Apts	205 Oregon St	No	Yes	Yes	Yes	4 Annually
Central Campus Apts	206 Alexander Ave*	No	Yes	Yes	Yes	2 Annually
Central Campus Apts	206 Oregon St	No	Yes	Yes	Yes	4 Annually
Central Campus Apts	209 Alexander Ave*	No	Yes	Yes	Yes	2 Annually
Central Campus Apts	209 Anderson St	No	Yes	Yes	Yes	4 Annually
Central Campus Apts	210 Alexander Ave*	No	Yes	Yes	Yes	2 Annually
Central Campus Apts	215 Alexander Ave*	No	Yes	Yes	Yes	2 Annually
Central Campus Apts	215 Anderson St	No	Yes	Yes	Yes	4 Annually
Central Campus Apts	220 Alexander	No	Yes	Yes	Yes	4 Annually
Central Campus Apts	221 Anderson St	No	Yes	Yes	Yes	4 Annually
Central Campus Apts	301 Oregon St	No	Yes	Yes	Yes	4 Annually
Central Campus Apts	301 Swift Ave	No	Yes	Spot Detector	Yes - Local	None
Central Campus Apts	302 Anderson St*	No	Yes	Yes	Yes	2 Annually
Central Campus Apts	302 Oregon St	No	Yes	Yes	Yes	4 Annually
Central Campus Apts	304 Anderson St*	No	Yes	Yes	Yes	2 Annually
Central Campus Apts	312 Anderson St	No	Yes	Yes	Yes	4 Annually
Central Campus Apts	314 Anderson St	No	Yes	Yes	Yes	4 Annually

\*Buildings marked with an asterisk (\*) were vacant from August 2016 forward and only received two fire drills.

<b><i>Building Name</i></b>	<b><i>Address</i></b>	<b><i>Sprink- lered</i></b>	<b><i>Fire Extinguishers</i></b>	<b><i>Fire Alarm</i></b>	<b><i>Smoke Detectors</i></b>	<b><i># of Fire Drills</i></b>
Marine Lab Dorm #1	135 Duke Marine Lab Rd	No	Yes	Yes	Yes	4 Annually
Marine Lab Dorm #2	135 Duke Marine Lab Rd	No	Yes	Yes	Yes	4 Annually
Marine Lab Dorm #3	135 Duke Marine Lab Rd	No	Yes	Yes	Yes	4 Annually
Marine Lab Dorm #4	135 Duke Marine Lab Rd	No	Yes	Yes	Yes	4 Annually
Marine Lab Dorm #5	135 Duke Marine Lab Rd	No	Yes	Yes	Yes	4 Annually
Marine Lab Dorm #6	135 Duke Marine Lab Rd	No	Yes	Yes	Yes	4 Annually

### **DAMAGING OR TAMPERING WITH FIRE SAFETY EQUIPMENT**

Relocating, removing, tampering with, or destroying smoke detectors or fire safety equipment is strictly prohibited. Damage and/or theft of fire equipment are punishable under North Carolina state law.

Intentional false alarms, damage, theft, and misuse of fire detection, alarm, and extinguishing equipment are punishable under the criminal law provision of the North Carolina Statute 14-286 and may result in the loss of housing privileges and/or action by the undergraduate disciplinary system. In addition, residents will be charged for fire damage resulting from neglect or intentional actions.

If a resident or staff member notices any damaged, missing, or malfunctioning equipment, they should immediately report the deficiency to the Housing Office or OESO Fire & Life Safety Division.

### **IMPAIRMENT PROGRAM**

The Fire Protection Impairment Program provides effective management for the safe shutdown of fire protection systems, control of potential fire hazards during the impairment, and restoration of the fire protection system to service as soon as possible. This vital program requires coordination between OESO Fire & Life Safety Division, construction managers, Duke University Police Department, and the Durham Fire Department.

# **STUDENT HOUSING - INCIDENTS**

## **DEPARTMENT OF EDUCATION 2016-REPORTED STATISTICS**

Table 3, located on the following pages, contains fire incidents that occurred in student housing during the three year period from 2014-2016. This information is required to be submitted to the Department of Education. Additional information on the Campus Fire Safety Right to Know Act and the 2017 Fire Statistics Report can be found by visiting the OESO Fire & Life Safety Division website at:

<http://www.safety.duke.edu/fire-life-safety/campus-fire-safety-right-know-act>

**Table 3 - Department of Education 2016 -Reported Statistics**

## FIRE STATISTICS FOR STUDENT HOUSING

2016

MAIN CAMPUS

Name of Facility	# of Fires	Date	Cause	Estimated Property Damage	Estimated Content Damages	# Injured	# of Deaths
Alspaugh 1344 Campus Dr.	0						
Bassett 1332 Campus Dr.	0						
Bell Tower 40 Brodie Gym Dr.	0						
Blackwell 51 Brodie Gym Dr.	0						
Brown 1328 Campus Dr.	0						
Craven Quad 440 Chapel Dr.	0						
Crowell Quad, 315 Towerview Dr	0						
East Residence Hall, 1312 Campus Dr.	0						
Edens 1A 419 Towerview Dr.	0						
Edens 1B 415 Towerview Dr.	0						
Edens 1C 423 Towerview Dr.	0						
Edens 2A 113 Edens Dr.	0						
Edens 2C 117 Edens Dr.	0						
Edens 3A 109 Edens Dr.	0						
Edens 3B 105 Edens Dr.	0						

## 2016

## MAIN CAMPUS

Name of Facility	# of Fires	Date	Cause	Estimated Property Damage	Estimated Content Damages	# Injured	# of Deaths
Epworth 2 Epworth La.	0						
Few Quad 420 Chapel Dr.	0						
Giles 1352 Campus Dr.	0						
Gilbert-Addoms 1638 Campus Dr.	0						
Jarvis 1360 Campus Dr.	0						
Keohane 4A 101 Wannamaker Dr.	0						
Keohane 4B 101 Wannamaker Dr.	0						
Keohane 4D 101 Wannamaker Dr.	0						
Keohane 4E 427 Towerview Dr.	0						
Kilgo Quad 104 Union Dr.	0						
Pegram 1340 Campus Dr.	0						
Randolph 50 Brodie Gym Dr.	0						
Southgate 1400 W. Main St.	0						
Smart House 1402 Faber St.	0						
Wannamaker 102 Wannamaker Dr.	0						
Wilson 1320 Campus Dr.	0						
1700 Pace St.	0						
1708 Pace St.	0						
1712 Pace St.	0						
1809 Erwin Rd.	0						
1901 Erwin Rd.	0						
1905 Erwin Rd.	0						
1907 Erwin Rd.	0						

2016

MAIN CAMPUS

Name of Facility	# of Fires	Date	Cause	Estimated Property Damage	Estimated Content Damages	# Injured	# of Deaths
1909 Yearby Ave	0						
1911 Erwin Rd.	0						
1911 Yearby Ave.	0						
1913 Erwin Rd.	0						
1914 Lewis St.	0						
1915 Erwin Rd.	0						
1915 Yearby Ave.	0						
2011 Yearby Ave.	0						
2015 Yearby Ave.	0						
201 Alexander Ave.	0						
202 Alexander Ave.	0						
204 Alexander Ave.	0						
205 Alexander Ave.	0						
205 Oregon St.	0						
206 Alexander Ave.	0						
206 Oregon St.	0						
209 Alexander Ave.	0						
209 Anderson St.	0						
210 Alexander Ave.	0						
215 Alexander Ave.	0						
215 Anderson St.	0						
220 Alexander Ave.	0						
221 Anderson St.	0						
301 Oregon St.	0						
301 Swift Ave.	0						
302 Anderson St.	0						
302 Oregon St.	0						
304 Anderson St.	0						
312 Anderson St.	0						
314 Anderson St.	0						

2016 - MARINE LAB

Name of Facility	# of Fires	Date	Cause	Estimated Property Damage	Estimated Content Damages	# Injured	# of Deaths
Dorm #1 135 Duke Marine Lab Rd.	0						
Dorm #2 135 Duke Marine Lab Rd.	0						
Dorm #3 135 Duke Marine Lab Rd.	0						
Dorm #4 135 Duke Marine Lab Rd.	0						
Dorm #5 135 Duke Marine Lab Rd.	0						
Dorm #6 135 Duke Marine Lab Rd.	0						

# FIRE STATISTICS FOR STUDENT HOUSING

2015

MAIN CAMPUS

Name of Facility	# of Fires	Date	Cause	Estimated Property Damage	Estimated Content Damages	# Injured	# of Deaths
Alsbaugh 1344 Campus Dr.	0						
Bassett 1332 Campus Dr.	0						
Bell Tower 40 Brodie Gym Dr.	0						
Blackwell 51 Brodie Gym Dr.	0						
Brown 1328 Campus Dr.	0						
Craven Quad 440 Chapel Dr.	0						
Crowell Quad, 315 Towerview Dr	0						
East Residence Hall, 1312 Campus Dr.	0						
Edens 1A 419 Towerview Dr.	0						
Edens 1B 415 Towerview Dr.	0						
Edens 1C 423 Towerview Dr.	0						
Edens 2A 113 Edens Dr.	0						
Edens 2C 117 Edens Dr.	0						
Edens 3A 109 Edens Dr.	0						
Edens 3B 105 Edens Dr.	0						



## 2015

## MAIN CAMPUS

Name of Facility	# of Fires	Date	Cause	Estimated Property Damage	Estimated Content Damages	# Injured	# of Deaths
Epworth 2 Epworth La.	0						
Few Quad 420 Chapel Dr.	0						
Giles 1352 Campus Dr.	0						
Gilbert-Addoms 1638 Campus Dr.	0						
Jarvis 1360 Campus Dr.	0						
Keohane 4A 101 Wannamaker Dr.	0						
Keohane 4B 101 Wannamaker Dr.	0						
Keohane 4D 101 Wannamaker Dr.	0						
Keohane 4E 427 Towerview Dr.	0						
Kilgo Quad 104 Union Dr.	0						
Pegram 1340 Campus Dr.	0						
Randolph 50 Brodie Gym Dr.	2	9/30/2015 11/16/2015	Dryer fire Under investigation	\$99,269 \$164,312	0 0	0 0	0 0
Southgate 1400 W. Main St.	0						
Smart House 1402 Faber St.	0						
Wannamaker 102 Wannamaker Dr.	0						
Wilson 1320 Campus Dr.	0						
1700 Pace St.	0						
1708 Pace St.	0						
1712 Pace St.	0						
1809 Erwin Rd.	0						
1901 Erwin Rd.	0						
1905 Erwin Rd.	0						
1907 Erwin Rd.	0						

2015

MAIN CAMPUS

Name of Facility	# of Fires	Date	Cause	Estimated Property Damage	Estimated Content Damages	# Injured	# of Deaths
1909 Yearby Ave	0						
1911 Erwin Rd.	0						
1911 Yearby Ave.	0						
1913 Erwin Rd.	0						
1914 Lewis St.	0						
1915 Erwin Rd.	0						
1915 Yearby Ave.	0						
2011 Yearby Ave.	0						
2015 Yearby Ave.	0						
201 Alexander Ave.	0						
202 Alexander Ave.	0						
204 Alexander Ave.	0						
205 Alexander Ave.	0						
205 Oregon St.	0						
206 Alexander Ave.	0						
206 Oregon St.	1	1/10/2015	Cardboard box on stove	0	0	0	0
209 Alexander Ave.	0						
209 Anderson St.	0						
210 Alexander Ave.	0						
215 Alexander Ave.	0						
215 Anderson St.	0						
220 Alexander Ave.	0						
221 Anderson St.	0						
301 Oregon St.	0						
301 Swift Ave.	0						
302 Anderson St.	0						
302 Oregon St.	0						
304 Anderson St.	0						
312 Anderson St.	0						
314 Anderson St.	0						

2015 - MARINE LAB

Name of Facility	# of Fires	Date	Cause	Estimated Property Damage	Estimated Content Damages	# Injured	# of Deaths
Dorm #1 135 Duke Marine Lab Rd.	0						
Dorm #2 135 Duke Marine Lab Rd.	0						
Dorm #3 135 Duke Marine Lab Rd.	0						
Dorm #4 135 Duke Marine Lab Rd.	0						
Dorm #5 135 Duke Marine Lab Rd.	0						
Dorm #6 135 Duke Marine Lab Rd.	0						

# FIRE STATISTICS FOR STUDENT HOUSING

2014

## MAIN CAMPUS

Name of Facility	# of Fires	Date	Cause	Estimated Property Damage	Estimated Content Damages	# Injured	# of Deaths
Alspaugh 1344 Campus Dr.	0						
Bassett 1332 Campus Dr.	0						
Bell Tower 40 Brodie Gym Dr.	0						
Blackwell 51 Brodie Gym Dr.	0						
Brown 1328 Campus Dr.	1	2/20/2014	Electrical	\$482,141	\$10,400	0	0
Craven Quad 440 Chapel Dr.	1	4/11/2014	Unattended cooking	0	0	0	0
Crowell Quad, 315 Towerview Dr	0						
East Residence Hall, 1312 Campus Dr.	0						
Edens 1A 419 Towerview Dr.	0						
Edens 1B 415 Towerview Dr.	0						
Edens 1C 423 Towerview Dr.	0						
Edens 2A 113 Edens Dr.	0						
Edens 2C 117 Edens Dr.	0						
Edens 3A 109 Edens Dr.	0						
Edens 3B 105 Edens Dr.	0						

## 2014

## MAIN CAMPUS

Name of Facility	# of Fires	Date	Cause	Estimated Property Damage	Estimated Content Damages	# Injured	# of Deaths
Epworth 2 Epworth La.	0						
Few Quad 420 Chapel Dr.	0						
Giles 1352 Campus Dr.	0						
Gilbert-Addoms 1638 Campus Dr.	0						
Jarvis 1360 Campus Dr.	0						
Keohane 4A 101 Wannamaker Dr.	0						
Keohane 4B 101 Wannamaker Dr.	0						
Keohane 4D 101 Wannamaker Dr.	0						
Keohane 4E 427 Towerview Dr.	0						
Kilgo Quad 104 Union Dr.	0						
Pegram 1340 Campus Dr.	0						
Randolph 50 Brodie Gym Dr.	0						
Southgate 1400 W. Main St.	0						
Smart House 1402 Faber St.	0						
Wannamaker 102 Wannamaker Dr.	0						
Wilson 1320 Campus Dr.	0						
1700 Pace St.	0						
1708 Pace St.	0						
1712 Pace St.	0						
1809 Erwin Rd.	0						
1901 Erwin Rd.	0						
1905 Erwin Rd.	0						
1907 Erwin Rd.	0						

## 2014

## MAIN CAMPUS

Name of Facility	# of Fires	Date	Cause	Estimated Property Damage	Estimated Content Damages	# Injured	# of Deaths
1909 Yearby Ave	0						
1911 Erwin Rd.	0						
1911 Yearby Ave.	0						
1913 Erwin Rd.	0						
1914 Lewis St.	0						
1915 Erwin Rd.	0						
1915 Yearby Ave.	0						
2011 Yearby Ave.	1	6/16/2014	Cooking	\$846	0	0	0
2015 Yearby Ave.	1	4/14/2014	Cooking	0	0	0	0
201 Alexander Ave.	0						
202 Alexander Ave.	0						
204 Alexander Ave.	0						
205 Alexander Ave.	0						
205 Oregon St.	0						
206 Alexander Ave.	0						
206 Oregon St.	0						
209 Alexander Ave.	0						
209 Anderson St.	0						
210 Alexander Ave.	0						
215 Alexander Ave.	0						
215 Anderson St.	0						
220 Alexander Ave.	0						
221 Anderson St.	0						
301 Oregon St.	1	9/5/2014	Cooking	0	\$15	0	0
301 Swift Ave.	0						
302 Anderson St.	0						
302 Oregon St.	0						
304 Anderson St.	0						
312 Anderson St.	0						
314 Anderson St.	0						

2014 - MARINE LAB

Name of Facility	# of Fires	Date	Cause	Estimated Property Damage	Estimated Content Damages	# Injured	# of Deaths
Dorm #1 135 Duke Marine Lab Rd.	0						
Dorm #2 135 Duke Marine Lab Rd.	0						
Dorm #3 135 Duke Marine Lab Rd.	0						
Dorm #4 135 Duke Marine Lab Rd.	0						
Dorm #5 135 Duke Marine Lab Rd.	0						
Dorm #6 135 Duke Marine Lab Rd.	0						

## **PLANS FOR THE FUTURE:**

### **NEW CONSTRUCTION:**

Duke University continues to incorporate state-of-the-art fire and life safety technology in new construction. Since 2013, en-Gauge Electronically Monitored Fire Extinguisher Systems were installed in various buildings on Campus including Baldwin Auditorium and Perkins Library. The system provides a signal the moment an extinguisher is removed, when an extinguisher falls out of pressure range, and/or when access to the extinguisher is continually blocked. This low cost, simple to install device saves inspection time and enables OESO Fire & Life Safety Division to focus valuable resources on other pressing issues while remaining in compliance with NFPA 10 and NFPA 72. Baldwin Auditorium was also equipped with a VESDA Very Early Warning Aspirating Smoke Detection System which was ideally suited to its layout. Video smoke detection units were installed in electrical and storage rooms in the West Campus Steam Plant.

Major construction and renovations at East Union, Brodhead Center, Duke Chapel, Scott Family Pavilion Addition to the Murray Building, Wannamaker Dorm, Giles Dorm, and Brooks Field at Wallace Wade Stadium were completed in 2016.

New construction and renovations began or continued in 2016 at Blue Devil Tower, James B. Duke Hotel, Science Drive Cameron Parking Garage, Cameron Indoor Stadium Expansion and Sprinkler Addition, Student Health & Wellness Center, New Arts Building, Duke Softball Complex, Alumni Center, OIT Telcom Building, Crowell Dorm, Trinity House, and The Hollows.

### **FUTURE CHALLENGES:**

Key challenges include:

- It is critical that programs be expanded in scope to include the research facilities, clinics, and the hospital to ensure adequate fire, life safety, and emergency response in these vital areas of the university. Such programs include:
  - Emergency Assembly Point (EAP) Designated Evacuation Zones: Planning must be continually re-evaluated to ensure continuity of the university and its mission.
  - As the university continues to grow, there is a challenge in providing service to more units and locations.
  - As the university is a 24/7 campus, there is a challenge in ensuring coverage of the myriad of after-hours and weekend activities.

### **CURRENT STATUS OF PROGRAMS AND FUTURE PLANS:**

Fires are among the most common hazards on college campuses. Even when extensive fire prevention measures are in place, fire can strike anywhere, at any time. According to the National Fire Protection Association, colleges and universities across the United States average more than 3,800 fires per year, most of which occur due to a general lack of knowledge about fire safety and prevention.



Great strides were made during the past year in fire safety awareness and emergency preparedness. OESO Fire & Life Safety Division staff initiated many key programs and projects, bringing the university closer to the goal of comprehensive preparedness.

Therefore, Duke University has implemented a wide range of safeguards to lower the risk and the potential repercussions of fire on campus. OESO Fire & Life Safety Division, Student Affairs, Duke Police, and Durham Fire Department all work in concert to help ensure a fire-safe environment for students, faculty, staff, and campus visitors. Still, it is everyone's responsibility to reduce fire hazards and keep Duke University as safe as possible from the threat of fire.

*Current status of University-wide initiatives are summarized below:*

- Emergency management: Emergency management teams are in place and trained. Continuous training is needed to ensure that teams are well prepared to implement all required emergency action plans and that sufficient backup personnel for emergency managers and key executives are in place.
- The University works closely with local and state agencies to coordinate fire and life safety programs.
- Emergency response in departments: Outstanding progress has been made training department personnel in procedures, and Duke continues to provide training in an effort to reach all work groups.
- Emergency equipment and supplies: The University continually invests in emergency equipment and supplies and continues to replenish the supplies as needed.
- Building emergency floor wardens: Several Duke University buildings now have individuals trained in basic emergency procedures and floor warden duties. However, these individuals will need to continue annual training to ensure they react properly in an emergency. Training will also extend to new employees to keep up with the average staff turnover ratio.
- Public education on emergency procedures: In this area, a great deal has been accomplished; many students, staff and faculty are aware of basic emergency procedures. Much has been developed in terms of publications, websites, or other educational campaigns for the campus community. Ongoing efforts continue because of the average student and staff turnover ratio.
- Although emergency preparedness needs to remain a top priority, fire prevention and safety programs also need to be emphasized over time to ensure optimal life safety and compliance. As we move forward, we must continue to make progress toward becoming a disaster-resistant university and build a reputation as one of the safest campuses in America.
- A supplemental freshmen orientation and information program, intended to coincide with other freshman first-week activities, is still under review. The session will incorporate some of the RC/RA training with a special emphasis on basic emergency procedures.