# Duke University Campus Fire Safety Right-to-Know Act 2018 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 2018 calendar-year campus fire safety policies and procedures as well as 2016- 2018 reported campus fire statistics.

A printed copy of this report and the current 2019 Fire Statistics Report are 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 2018 Annual OESO Fire & Life Safety Division Report:

Annual Fire Safety Report 2018 https://www.safety.duke.edu/fire-life-safety/campus-fire-safety-right-know-act

View the Annual Clery Campus Security Report for 2019:

**Annual Clery Campus Security Report October 2019** 

# **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 Resident Assistant/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 Housing and Residence Life (HRL): 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 responding 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 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 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. 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.

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.

Portable space heaters are prohibited unless authorized by Housing and Residence Life (HRL).

#### **HALOGEN LAMPS**

OESO Fire & Life Safety Division and Housing and Residence Life (HRL) prohibit halogen lights in residential areas. The very high temperatures reached by their bulbs constitute a fire hazard and a potential source of burns. In addition, the geometry of the floor model lamp tends to make them very unstable and easily tipped over.

#### **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 University Health System Campus.

#### **OPEN FLAMES**

It is a violation of university policy to light any material on fire on campus. Candles, other open flame devices, and incense are strictly forbidden for use inside University facilities. Battery or electrically powered candles will be used except when a religious activity specifically requires the use of a live flame. Students and groups will be held financially accountable for any damage they cause as a result of violating this policy and will be referred to the disciplinary process. Additionally, students may be subject to revocation of their Housing License for any violation of this policy.

Those individuals wishing to utilize live flame candles in observance of a religious holiday should contact Religious Life at Duke or Jewish Life at Duke for guidance. OESO Fire & Life Safety Division will not accept requests directly from students. OESO Fire & Life Safety Division will provide information concerning fire prevention directly to Religious Life at Duke and Jewish Life at Duke. Use of candles will not be permitted inside any residential facilities. Requests for use of live flame candles in outdoor locations need to follow the same process and are subject to approval on a case by case basis. All personnel should know the location of building fire equipment to include fire extinguishers and manual fire alarm pull stations.

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

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 Duke Chapel functions to ensure compliance with the NC Fire Code - specifically, overcrowding, maintaining clear aisles 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 <u>must</u> 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. Housing & Residence Life should also be contacted as detailed on page 2.

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. During normal duty-hours, 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 early into 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 or communication 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 nearly 1800 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 supervise 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 225 student housing fire drills conducted in 2018, including five 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. Several persons attended the North Carolina Fire Prevention School Intermediate Level and National Fire Protection Association (NFPA®) 80 Inspection of Health Care Occupancy Fire Doors. Staff also participated in multiple webinars on various topics including Purposefully Delayed Fire Alarm Notification, Smoke Control Systems, Water Based Fire Protection Systems and Their Fire Alarm Devices, New Smoke Detection Flaming and Smoldering Foam Test, Basics of Ambulatory Accreditation, Orientation to Accreditation Requirements, 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 7,765 extinguishers. Duke has also adopted the en-Gauge 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 602 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** = **R**emove all persons from danger; **A**ctivate the manual pull station and dial 911; **C**lose all doors and windows; **E**xtinguish the fire and/or **E**vacuate 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 – 2018

	Jan	Feb	Mar	Apr	May	Jun	July	Aug	Sept	Oct	Nov	Dec
University – Number of Trainees	67	0	17	17	91	33	47	15	0	177	117	21
University – Classes	1	0	1	1	4	3	2	1	0	5	3	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: strobes, horns, and/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, Crowell, Few, Keohane, the renovated sections of Kilgo, Smart House, and Trinity 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, Crowell, East Residence Hall, Epworth, Few, Jarvis, Keohane (4A, B, D & E), Kilgo, Randolph, Smart House, Trinity, and 300 Swift Ave. Forty-eight percent of the dormitories have sprinkler protection. The sprinkler systems are tested each quarter.

Fire alarm systems in all housing facilities are monitored by Duke Police, except 300 Swift Ave which reports to a third party monitoring company.

(See Table 2 for complete 2018 dormitory-specific fire safety systems features)

**Table 2** – Student Housing 2018 Fire Safety System Features

Alspaugh	1344 Campus Dr.	No	V .		
	10 1 1 Campas 211	INO	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	2 Annually*
Crowell Quad	315 Towerview Dr.	Yes	Yes	Yes	2 Annually*
East Residence	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	2 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
Ja rvi s	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	2 Annually*
Smart House	1402 Faber St.	Yes	Yes	Yes	4 Annually
Trinity	610 Broad St.	Yes	Yes	Yes	4 Annually
Wannamaker	102 Wannamaker Dr.	No	Yes	Yes	4 Annually
Wilson	1320 Campus Dr.	No	Yes	Yes	4 Annually
*Crowell, Craven, and	Southgate were only oc	cupied for porti	ons of the year due to co	onstruction.	

Building Name	Address	Sprink- lered	Fire Extinguishers	Fire Alarm	Smoke Detectors	# of Fire Drills
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	Vacant
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	Vacant
Central Campus Apts	202 Alexander Ave*	No	Yes	Yes	Yes	Vacant
Central Campus Apts	204 Alexander Ave*	No	Yes	Yes	Yes	Vacant
Central Campus Apts	205 Alexander Ave*	No	Yes	Yes	Yes	Vacant
Central Campus Apts	205 Oregon St	No	Yes	Yes	Yes	4 Annually
Central Campus Apts	206 Alexander Ave*	No	Yes	Yes	Yes	Vacant
Central Campus Apts	206 Oregon St	No	Yes	Yes	Yes	4 Annually
Central Campus Apts	209 Alexander Ave*	No	Yes	Yes	Yes	Vacant
Central Campus Apts	209 Anderson St	No	Yes	Yes	Yes	4 Annually
Central Campus Apts	210 Alexander Ave*	No	Yes	Yes	Yes	Vacant
Central Campus Apts	215 Alexander Ave*	No	Yes	Yes	Yes	Vacant
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	300 Swift Ave	Yes	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	Vacant
Central Campus Apts	302 Oregon St	No	Yes	Yes	Yes	4 Annually
Central Campus Apts	304 Anderson St*	No	Yes	Yes	Yes	Vacant
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 a	n asterisk (*) were vacar	it from Aug	ust 2016 forward.			

Building Name	Address	Sprink-	Fire	Fire	Smoke	# of Fire
		lered	Extinguishers	Alarm	Detectors	Drills
Marine Lab Dorm #1	135 Duke Marine	No	Yes	Yes	Yes	5
	Lab Rd					Annually
Marine Lab Dorm #2	135 Duke Marine	No	Yes	Yes	Yes	5
	Lab Rd					Annually
Marine Lab Dorm #3	135 Duke Marine	No	Yes	Yes	Yes	5
	Lab Rd					Annually
Marine Lab Dorm #4	135 Duke Marine	No	Yes	Yes	Yes	5
	Lab Rd					Annually
Marine Lab Dorm #5	135 Duke Marine	No	Yes	Yes	Yes	5
	Lab Rd					Annually
Marine Lab Dorm #6	135 Duke Marine	No	Yes	Yes	Yes	5
	Lab Rd					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 disciplinary action. 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 Housing and Residence Life (HRL) 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 2018-REPORTED STATISTICS**

Table 3, located on the following pages, contains fire incidents that occurred in student housing during the three year period from 2016-2018. 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 2019 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 2018 -Reported Statistics

# FIRE STATISTICS FOR STUDENT HOUSING

2018

	# of			Estimated Property	Estimated Content	#	# of
Name of Facility	Fires	Date	Cause	Damage	Damages	Injured	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			Unintentional-bag of				
105 Edens Dr.	1	01/16/2018	groceries placed on cooktop.	\$155	\$20	0	0

			1017 (114 67 (1011 63				
Name of Facility	# of Fires	Date	Cause	Estimated Property	Estimated Content	# Injured	# of Deaths
Epworth	rifes	Date	Cause	Damage	Damages	IIIJureu	Deatils
2 Epworth La.	0						
Few Quad	0						
420 Chapel Dr.	0						
Giles	0			1			
1352 Campus Dr.	0						
Gilbert-Addoms	- ·						
1638 Campus Dr.	0						
Jarvis	<u> </u>						
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			Unintentional-dryer-				
50 Brodie Gym Dr.	1	09/06/2018	overheating	\$520	\$500	0	0
Southgate							
1400 W. Main St.	0						
Smart House							
1402 Faber St.	0						
Trinity			Unintentional-fire inside				
610 Broad St.	1	11/16/2018	heater	\$1337	0	0	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						
1000 LI WIII ING.							

	# of			Estimated Property	Estimated Content	#	# of
Name of Facility	Fires	Date	Cause	Damage	Damages	Injured	Deaths
1907 Erwin Rd.	0						
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						
300 Swift Ave	1	12/17/2018	Unintentional-cooking fire	0	0	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						

			2018 - 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

2017

	# of			Estimated	Estimated	#	# of
Name of Facility	Fires	Date	Cause	Property Damage	Content Damages	Injured	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			Intentional/Bulletin board				
113 Edens Dr.	1	01/29/2017	was ignited.	\$428	0	0	0
Edens 2C							
117 Edens Dr.	0						
Edens 3A							
109 Edens Dr.	0						
Edens 3B							
105 Edens Dr.	0						

Name of Facility	# of Fires	Date	Cause	Estimated Property Damage	Estimated Content Damages	# Injured	# of Deaths
Epworth	11103	Date	Cause	Damage	Damages	mjarca	Deaths
2 Epworth La.	0						
Few Quad			Unintentional-ignition by				
420 Chapel Dr.	1	12/16/2017	candle.	\$161,821	\$1560	0	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						
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	и - С			Estimated	Estimated		c
Name of Facility	# of Fires	Date	Cause	Property Damage	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						
		10/05/2017	Unintentional-candle ignited sofa.	\$800	0	0	0
300 Swift Ave	2	12/02/2017	Unintentional-cooking fire.	\$6000	0	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						

			2017 - 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

2016

	# of			Estimated Property	Estimated Content	#	# of
Name of Facility	Fires	Date	Cause	Damage	Damages	Injured	Deaths
Alspaugh					y		
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						

	# of			Estimated Property	Estimated Content	#	# of
Name of Facility	Fires	Date	Cause	Damage	Damages	Injured	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						

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						

# **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, Perkins Library, and Rubenstein Arts Center. 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. Video smoke detection units were installed in electrical and storage rooms in the West Campus Steam Plant.

Major construction and the addition of sprinkler protection were completed at Crowell Quad in 2018.

New construction and renovations began or continued in 2018 at The Hollows, Craven Quad, Southgate Upgrades and Sprinkler Addition, New Engineering Building, and Alumni Center.

New construction and renovations are scheduled to begin in 2019 at Gilbert-Addoms Upgrades and Sprinkler Addition.

Other proposed projects are pending for the McClendon Tower Eden's Café and the Legacy Building.

#### **FUTURE CHALLENGES:**

Key challenges include:

- Emergency Assembly Point (EAP) Designated Evacuation Zones: Planning must be continually re-evaluated to ensure continuity of the university and its mission.
- o 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:**

Great strides were made during the past year in fire safety awareness and emergency preparedness. OESO Fire & Life Safety Division initiated many key programs and projects, including making revisions to existing emergency planning and interior finish/decorations policies to align with the release of the North Carolina Fire Code 2018 edition. These efforts bring 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.

0	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.