



UNC CHARLOTTE

Environmental Health and Safety

Hazardous Waste Contingency Plan

January 2016

1. As required by the Resource Conservation and Recovery Act (RCRA) and the Occupational Safety and Health Act (OSHA), the provisions of this plan must be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment.
2. The following are recommended responses to fire, explosions, or hazardous waste spills:
 - a. Notify Campus Police and the Emergency Coordinators of the incident via Campus Police (911) or at the numbers listed in [Appendix B](#), Emergency Coordinators.
 - b. Activate internal facility alarm(s) to notify building personnel. The sound of the alarm is a repetitive buzzing sound.
 - c. Isolate the hazard area and keep personnel away who are not directly involved with the emergency response.
 - d. Remove all people from the incident area and buildings at distances recommended in the evacuation tables in the [DOT Emergency Response Guidebook](#) found in the Solvent Storage Building Room 100 (the “Bunker”), Burson Building Stockroom Spill Response Carts, Woodward Hall Vivarium Spill Kit, Police and Public Safety Department and the Environmental Health and Safety Office in the EHS Modular Building.
 - e. When evacuating the area and/or buildings, direct evacuees upwind to remain clear of vapors or smoke in the incident area.
 - f. All laboratories are to have a decal on the door which identifies the person in charge; this individual or his/her supervisor should be contacted to determine exactly what hazards might be encountered.
 - g. If the person in charge of the laboratory or his/her supervisor cannot be contacted and if the room must be entered to determine the nature of the incident, contact local emergency responders.
 - h. Be alert for any posted signs indicating a hazard or hazardous properties of materials.
 - i. If a rescue operation is required, local emergency responders will be utilized.
 - j. Requests for assistance or notification of outside agencies listed in [Appendix E](#), Agency Emergency Telephone Numbers will be handled by the Safety Officer/Emergency Coordinator or the Campus Police Shift Supervisor.
 - k. The plan is divided into appendices addressing the following subject areas:

Appendix A	Arrangements with Local Authorities
Appendix B	Emergency Coordinators
Appendix C	Hazardous Waste Description, Locations and Evacuation Maps
Appendix D	Emergency Equipment
Appendix E	Agency Emergency Telephone Numbers
Appendix F	Training
Appendix G	Emergency Response Operation
Appendix H	List of Contingency Plan Recipients

APPENDIX A**Arrangements with Local Authorities**

UNC Charlotte has entered into agreements with the following organizations to respond in the event of a hazardous materials incident on campus.

- a. Charlotte Fire Department, Charlotte, North Carolina, is first responder for fire and medical emergencies on the UNC Charlotte campus, with MEDIC (Mecklenburg County Emergency Medical Service) also responding. Additional response by the Charlotte Fire Department - Hazardous Materials Team is also available.
- b. Carolina Medical Center/University Hospital - Emergency Department is the primary health care facility for personnel injured while responding to a chemical fire/spill incident.
- c. Environmental Enterprises, Inc. is the University's hazardous waste contractor and is responsible for performing collection, transportation and disposal of hazardous wastes.
- d. Police and Public Safety Department, UNC Charlotte, Charlotte, North Carolina, is responsible for initial response to the scene of a hazardous materials incident, initiating emergency response by notifying the proper authorities, and providing law enforcement at the scene of the incident.
- e. Student Health Services, UNC Charlotte, Charlotte, North Carolina, is to provide assistance with first aid treatment at the Health Center, when open and requested by the Campus Police.
- f. Charlotte-Mecklenburg Police Department, Charlotte, North Carolina, is responsible for providing back-up assistance for law enforcement to the University Police and Public Safety Department.
- g. North Carolina Highway Patrol, Charlotte, North Carolina, is designated to provide traffic control, as necessary, for contiguous routes of entry and exit to the University.
- h. Land Use and Environmental Services Agency and the Charlotte-Mecklenburg Emergency Management Office, Charlotte, North Carolina, are designated to provide assistance for control and clean-up of a hazardous materials incident.

APPENDIX B

Emergency Coordinator

The Emergency Coordinators for UNC Charlotte is as follows:

1. Benjamin Teal

Office Address: EHS Building, UNC Charlotte
Home Address: 2105 Norwich Court, Kannapolis, NC
Office Telephone: 704-687-0674
Home Telephone: 704-298-0345
Cell: 252-327-9679

2. Bruce Crowell

Office Address: EHS Building, UNC Charlotte
Home Address: 15618 Northstone Dr. Huntersville, NC 28078
Office Telephone: 704-687-0679
Home Telephone: 704-875-0807
Cell: 704-807-2773

APPENDIX C**Hazardous Waste Description and Locations**

1. Hazardous waste is primarily laboratory wastes from instructional and research laboratories located in Burson, Cameron, Woodward, Bioinformatics, Duke, Grigg and EPIC halls. Waste can be ignitable, corrosive, reactive, or toxic. Injuries resulting from hazardous waste incidents could produce burns, chemical burns, or chemical overexposure.
2. Hazardous Waste Storage Locations
 - a. Solvent Storage Building (Room 100)
 - b. Burson Physical Science Building (Room 225-A)
 - c. Zone 6 Shop Building

3. Fire Response

Employees working in hazardous waste accumulation areas should not attempt to fight fires. Appropriate response is to sound building alarm, notify Campus Police, and evacuate building.

4. Evacuation Procedures

- a. Evacuation signals for Hazardous Waste emergencies are the general fire alarm horns in the Solvent Storage Building, Burson Physical Sciences Building and Facilities Management Parking Building.
- b. Evacuation routes are indicated on the following floor plans.
- c. Occupants should assemble in the following area:

Solvent Storage Building – sidewalk beside Mary Alexander Road

Burson Physical Sciences Building – Parking Lot 15 adjacent to Burson Building

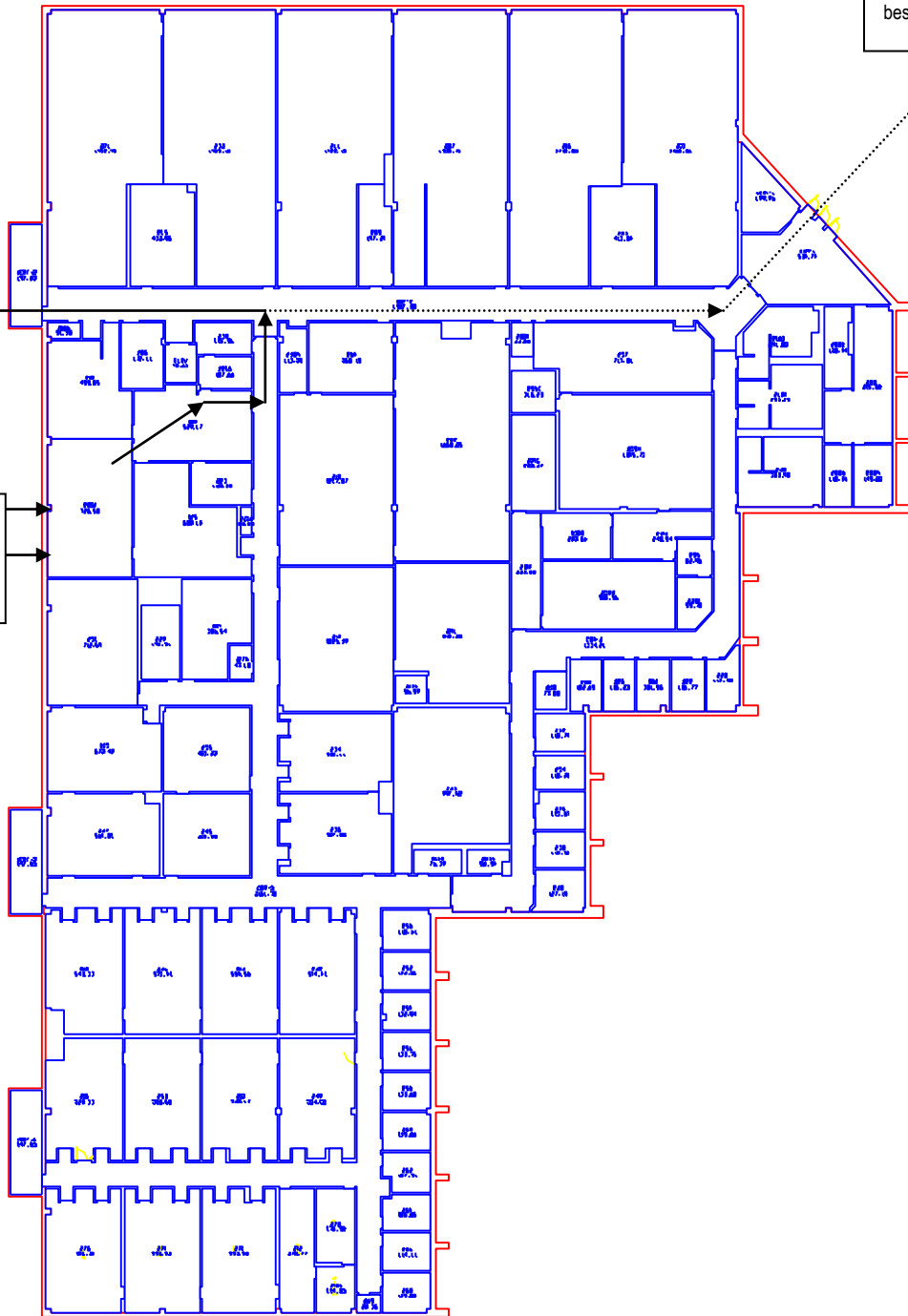
Facilities Management Parking Building – Parking Lot adjacent to building

- d. Evacuation Plans for all other buildings on UNC-Charlotte campus can be found at the following link:
<http://safety.uncc.edu/fire-life-safety/building-evacuation-plans>.

Secondary Evacuation Route – Out Front Entry Doors – proceed to Roadway beside Smith Building

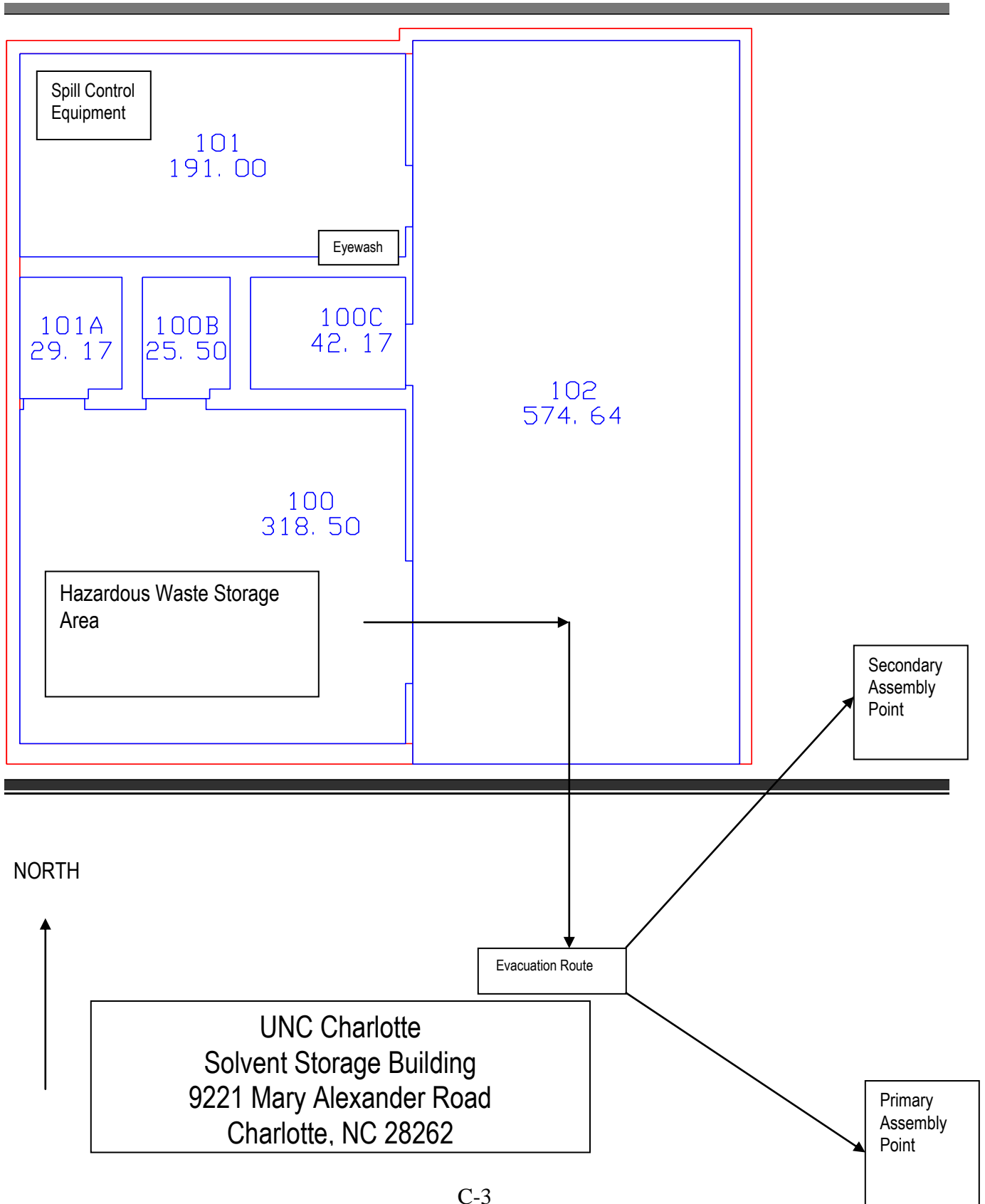
Primary Evacuation Route – Exit to Rear steps – Proceed down steps to parking lot

Hazardous Waste Storage Area and Spill Control Equipment -- Room 225A

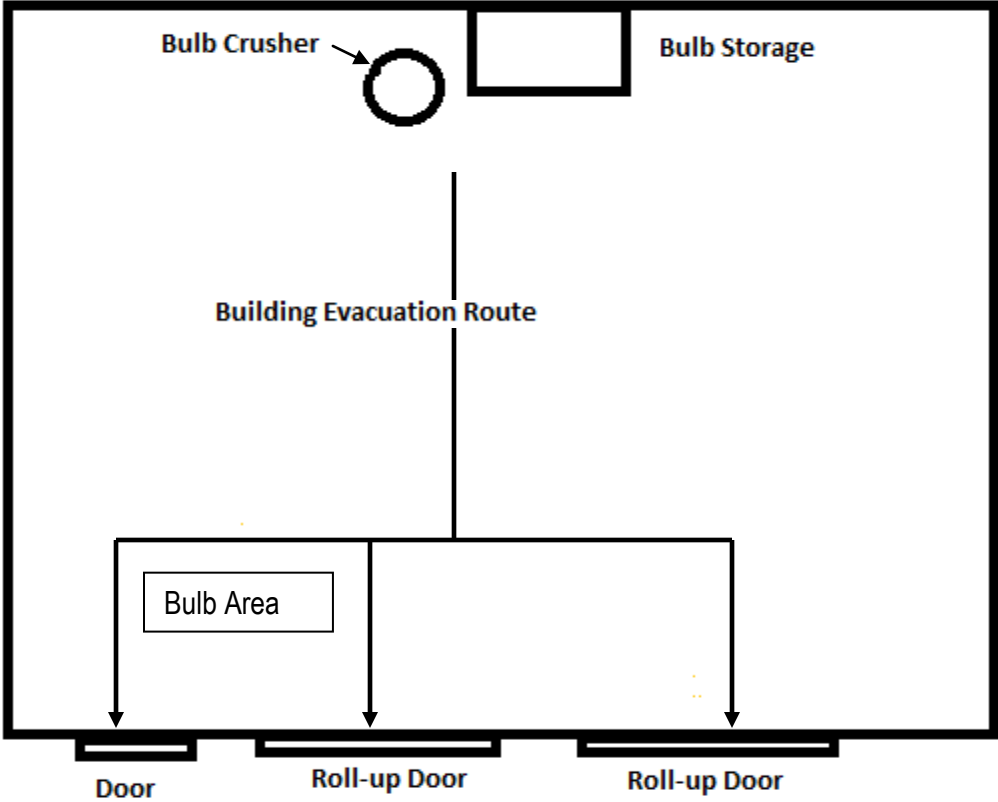


NORTH ←

UNC-Charlotte
Burson – Physical Sciences Building
Hazardous Waste Storage Area
9006 Craver Road
Charlotte NC 28262



Zone 6 Shop (0033)
Bulb Storage / Bulb Crusher Area
241 Facilities Drive
Charlotte, NC 28262



**Primary
Rally Point**

APPENDIX D
Emergency Equipment

Emergency equipment is available at the following locations:

Please note: Burson building room 221 **doorway is the main entrance to chemistry stockroom and the stockroom “suite” area:** Rooms within stockroom “suite” area; Room 225 A – Inorganic Chemical Storage, Room 225 – Organic Chemical Storage and Hazardous Waste Storage Area, Room 208 – Glassware Storage Area

Chemistry Department Laboratory Manager is housed in Room 219

- a. Chemical spill cart, Inorganic Chemical Storage Room - Burson Physical Sciences Building (Room 225A).

Mop and bucket

Push broom

Hand broom (also found in the Facilities Management Zone 6 Bulb Crusher area)

Dust pan (also found in the Facilities Management Zone 6 Building Bulb Crusher area)

Squeegee

Chemical spill clothing kit

Two (2) pairs of rubber boots

Four (4) pairs of plastic shoe covers

One (1) box of Nitrile gloves

Two (2) boxes of hazardous waste bags

One (1) bucket of Vermiculite

One (1) bottle of sodium bicarbonate

One (1) face shield

Three (3) plastic buckets & One (1) caution signs

A fully equipped spill response kit is located within the Environmental Health and Safety Office – emergency response vehicle. The spill kit contains booms/pillows, absorbent pads, acid and base neutralizers, organic material absorbents, pollutant test strips, protective clothing and gloves and an Emergency Response Guidebook.

- b. Three Mercury spill response control kits are housed on campus, one within the Burson Physical Sciences Building (Room 225A), one in the UNCC Solvent Storage Building (Room 100), and the third in the Facilities Management Building Zone 6 Bulb Crusher Area.

- c. Vermiculite for absorbing liquid from a spill can be found in the following locations:

(1) Burson Physical Sciences Building (Room 225A)

(2) Solvent Storage Building (Room 100)

- d. Two (2) 55 gallon drums for containing residue from a spill can be found in the Solvent Storage Building (Room 100).

- e. Eyewash and Safety Showers are located in the following waste areas:

(1) Solvent Storage Building (Room 100)

(2) Burson Physical Sciences Building (Room 225A)

- f. Communications
 - (1) The entire campus is covered by the Police and Public Safety Department radio system.
 - (2) The entire campus is served by its own telephone system.
 - (3) Facilities Management Radio System.
 - (4) Cellular Telephones.
- g. Radiation Survey Meters
 - (1) Ludlum Model 3 survey meter with the following probes: M-44-9 GM Pancake, M-44-3 (Scintillator Detector), M 44-2 (Scintillator Detector)
 - (1) Ludlum Model 26 GM Pancake detector
 - (1) Fluke Model 451B-RYR Ion Chamber
 - All meters are located in the Environmental Health and Safety (EHS) Office - Modular Building Room 117.
- h. [DOT Emergency Response Guidebooks](#), Environmental Health and Safety Office – (EHS Building), Spill Response Carts (Burson - Room 225A and Hazardous Waste Storage Facility - Room 100) and, Police and Public Safety Operations Center (Facilities Management Building) provide information for hazardous material incidents, i.e., potential health hazards, fire or explosion risks, spill or leak procedures and recommended first aid. Additional copies of DOT Emergency Response Guidebooks are available in Environmental Health and Safety Office – EHS Modular Building Room 117.
- i. Volatile Organic Compound (VOC) Survey Meters
 - (1) RAE Systems ppbRAE 3000 Photoionization Detector (PID) (measures VOC's at the ppb level)
 - Meter is located in the Environmental Health and Safety (EHS) Office - Modular Building Room 117.
- j. Multi-Gas Survey Meters
 - (1) RAE Systems MultiRAE Pro (Oxygen, Carbon Monoxide, Hydrogen Sulfide, LEL, VOCs)
 - (1) BW Technologies Gas Alert Quattro (Oxygen, Carbon Monoxide, Hydrogen Sulfide, LEL)
 - All meters are located in the Environmental Health and Safety (EHS) Office - Modular Building Room 117.
- k. Air Velocity Meters
 - (2) TSI Model 9535 VelociCalc air velocity meters
 - (2) TSI Model 8345 VelociCalc air velocity meters
 - All meters are located in the Environmental Health and Safety (EHS) Office - Modular Building Room 117.
- l. Fire Control Equipment
 - (1) The Solvent Storage Building is equipped with a fixed automatic/manual carbon dioxide fire extinguishing system.
 - (2) Burson Physical Sciences Building - Room225A and adjacent Rooms in Stockroom “suite” 221 and 208 have 10# ABC fire extinguishers.

(3) Facilities Management Zone 6 Shop Building Bulb Crusher area

m. Fire Alarms Systems

Burson Physical Sciences Building and the Solvent Storage Building have alarm systems consisting of wall pull stations and smoke detectors. Alarms are supervised by Campus Police.

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APPENDIX E

Agency Emergency Telephone Numbers

UNC Charlotte Campus Police	7-2200 or 911
Charlotte Police Emergency	9-911
Carolina Medical Center (University) – Emergency Room	(704) 863-5600
Charlotte Fire Department	9-911 (City Dispatcher)
Medic	9-911
UNC Charlotte EHS Office (8:00 a.m. - 5:00 p.m.)	(704) 687-1111
Environmental Emergency (National Response Center)	1-800-424-8802
Chemtrec (Info on Chemicals)	1-800-424-9300
Mecklenburg County Land Use & Environmental Department - Immediate Response 24 hr.	(704) 281-0938
After Hours	9-911
Mecklenburg County Water Quality (Oil Spill – RQ all) 24 hr. Emergency Response	(704) 281-0938
Office of State Warning Point (Non-business hours – highway patrol)	(828) 466-5500
NC Division of Emergency Management (Oil Spill RQ 25 gal)	1-800-858-0368
NC Department of Environmental and Natural Resources, Division of Waste Management/Raleigh, NC	(919) 707-8200
Environmental Protection Agency (Emergency Response) Atlanta, Georgia	(404) 562-8700
Environmental Enterprises, Inc. (Hazardous Waste Contractor)	1-800-850-3587
HEPACO (Spill Cleanup Contractor)	1-800-888-7689
UNC Charlotte Primary Emergency Coordinator:	
Benjamin Teal	(704) 298-0345 (Home) (704) 687-1111 (Office) (252) 327-9679 (Cell)

APPENDIX F

Training

1. Facility personnel shall be trained to effectively respond to emergencies by familiarizing them with emergency procedures, emergency equipment and emergency systems. Such training shall be updated annually.
2. Training records on current personnel must be kept until closure of the facility and on former employees for at least three years.
3. All records pertaining to training will be maintained in the UNC Charlotte Environmental Health and Safety Office – EHS Modular Building.

APPENDIX G**Emergency Response Operations**

Emergency response is an effort by employees from outside the immediate hazardous substance release area or other designated responders to an occurrence which is likely to result in an uncontrolled release. This does not include situations controlled by employees in the immediate release area or maintenance employees.

- a. Incident Command Systems (ICS)
 - (1) The senior emergency response official responding shall become the individual in charge, Incident Commander (IC). All emergency responders and communications shall be controlled through this individual assisted by the senior UNCC public safety official present.
 - (2) The IC shall identify all hazardous substances or conditions and appropriate controls.
 - (3) The IC shall implement appropriate emergency operation and assure use of personal protective equipment.
 - (4) The IC will limit the number of emergency response personnel to those actively performing emergency operations. The "buddy system" shall be used in hazardous areas.
 - (5) Back-up personnel with rescue equipment shall stand by. Advanced first aid support and transportation shall be available.
 - (6) The IC shall designate a Safety Official with specific responsibility to identify and evaluate hazards and direct the safety of operations.
 - (a) The Safety Official shall alter, suspend, or terminate activities judged to be immediately dangerous to life or health (IDLH) or that involves imminent danger.
 - (b) The Safety Official shall immediately notify the IC of corrective actions needed.
 - (7) The IC shall implement decontamination procedures.
- b. Skilled Support Personnel
 - (1) Personnel skilled in use of certain equipment may perform emergency support work.
 - (2) These personnel shall receive an initial on-site briefing prior to participation to include:
 - (a) Chemical hazards involved
 - (b) Wearing of personal protective equipment
 - (c) Duties to be performed

(3) All appropriate safety and health procedures shall be used.

c. Specialist Employees

(1) Employees who work with and are trained in hazards of specific hazardous substances may be used to provide technical assistance.

(2) These employees must have training or competency and their specialty must be demonstrated annually.

d. First Responder Awareness Level

(1) First responders who are likely to witness or discover a hazardous substance release.

(a) Take no further action beyond notifying authorities of release.

(b) Shall have training or experience to demonstrate competence in:

1 Understanding of what hazardous materials are, and risks associated with them.

2 Understanding of potential outcomes with such emergencies.

3 Ability to recognize hazardous materials in an emergency.

4 Ability to identify hazardous materials, if possible.

5 Understanding role of first responder in the response plan and use of DOT Emergency Response Guidebook.

6 Ability to recognize need for additional resources and make appropriate notifications.

e. Trainers

Trainers shall have satisfactorily completed an adequate training course or have training / credentials / experience to demonstrate competency in subject matter.

f. Refresher Training

Refresher training or competency shall be demonstrated annually.

g. Medical Surveillance

Any emergency response personnel who exhibit signs or symptoms from possible exposures during an emergency shall be provided medical consultation.

h. Post-Emergency Response Operations

Clean-up operations shall be completed by qualified, trained contractor personnel.

APPENDIX H**List of Contingency Plan Recipients****1. Outside Agencies**

Charlotte Fire Department
500 Dalton Ave.
Charlotte, North Carolina 28206

Mr. Garret Harrold, Fire Inspector/Fire Plans Examiner
Charlotte Fire Department
500 Dalton Ave.
Charlotte, North Carolina 28206

Mr. Dave Canaan, Director
Water and Land Resources
2145 Suttle Ave.
Charlotte, North Carolina 28208-5237

Mr. Wayne Broome, Director
Emergency Management Office
500 Dalton Ave.
Charlotte, North Carolina 28206

Lab Pack Services Division
Environmental Enterprises, Inc.
4650 Spring Grove Ave.
Cincinnati, Ohio 45232

Mr. Michael Stanford, Emergency Preparedness and Special Operations Supervisor
MEDIC, Mecklenburg Emergency Medical Service
4525 Statesville Rd.
Charlotte, North Carolina 28269

Ginger Maness, Manager
Emergency Department
Carolina Medical Center at University
8800 N. Tryon St.
Charlotte, North Carolina 28262

First Sergeant Kelly Sturgill
North Carolina Highway Patrol
12101 Mt. Holly-Huntersville Road
Huntersville, North Carolina 28078

Office of the Chief of Police
Charlotte-Mecklenburg Police Department
601 E. Trade Street
Charlotte, North Carolina 28202

2. University Faculty/Staff

Chancellor

Provost

Senior Associate Provost

Vice Chancellor for Research and Federal Relations

Vice Chancellor for Business Affairs

Director, Police and Public Safety

Deputy Director, Police and Public Safety

Associate Vice Chancellor for Human Resources

Director of Environmental Health and Safety

Dean, College of Arts and Sciences

Chairperson, Department of Biology

Director, Laboratory Animal Resources

Director, Student Health Services

Associate Vice Chancellor, Housing and Residence Life

Chairperson, Department of Chemistry

Chairperson, Department of Physics and Optical Science

Dean, College of Engineering

Executive Director, Charlotte Research Institute

Chairperson, Department of Psychology

Associate Vice Chancellor for Facilities Management

Director, Recreational Facilities Management

Chairperson, Department of Art

Chairperson, Department of Geography and Earth Science

Director, Business Continuity Planning

Associate Vice Chancellor for Risk Management Safety and Security