Wake Forest Baptist Medical Center	Department of Pathology Laboratory Waste Disposal Policy	Dept:	Pathology
		Effective Date:	
		Revised Date:	New
		Contact:	Laboratory Compliance, QA and Safety
Name & Title: CLIA Laboratory Director		Date:	2/5/19
Signature:			

1) **General Procedure Statement:** Pathology Laboratories can generate many forms of regulated waste. This policy serves to explain the categories of waste generated and to standardize how it is handled for proper disposal according to local, state, and federal regulations.

   a. **Responsible Department/Scope:**
      i. Procedure owner/Implementer: Department of Pathology
      ii. Procedure prepared by: Department of Laboratory Compliance, Quality and Safety
      iii. Supervision: Department of Pathology Laboratories Section Managers, Laboratory Staff
      iv. Implementation: Section Medical Directors, Sections Managers, Laboratory Compliance Officer and the CLIA Lab Director

2) **Procedure:** Each Pathology laboratory must separate their regulated waste into a manageable container for appropriate disposal. Different types of waste generated within a single laboratory may need to be disposed of in different ways depending on what form of waste it is and its method of disposal. Methods are determined by the Department of Environmental Health & Safety of Wake Forest Baptist Health (EH&S). The methods of disposal are determined based on applicable local, state, and federal laws. Each laboratory coordinates their own waste disposal schedule with EH&S based on the type and amount of waste generated.

   Types of regulated medical waste generated by each section of the Pathology Laboratory may fall into these categories that are separated accordingly by laboratory personnel and handled appropriately for disposal by EH&S.

Biological Waste

Type	Definition	Examples
Microbiological	Agents infectious to humans, including cultures and stocks from medical, pathological, or research laboratories, and their associated biological this includes bacteria, viruses, fungi and other parasites	Cultures, stocks, and biologicals
Pathological	Human pathological waste, including tissues, organs and body	Human cadavers and other anatomical waste

	parts and body fluids that are removed during surgery and autopsy or other medical procedures and specimens of body fluids and their containers	
Blood and Blood Products	• Human body fluids include: blood, cerebrospinal fluid, synovial fluid, pleural fluid, peritoneal fluid, pericardial fluid, amniotic fluid, and any body fluid that is visibly contaminated with blood. • Waste human products of blood and products of blood, items saturated and/or dripping with human blood. Intravenous bags are also included in this category. • Containers and/or materials containing free-flowing blood or blood components. • Discarded waste blood and/or blood components.	Serum, plasma, containers which were used or intended for use in either patient care, testing and laboratory analysis or the development of pharmaceuticals.
Sharps	Sharps that have been used in animal or human patient care or in medical research or laboratories.	Used or unused needles, Pasteur pipettes, scalpel blades, razor blades, broken glass, blood vials, broken or unbroken glass slides, syringe barrels.
Urine and Feces	Urine and feces from animals and/or humans.	

Chemical Waste

Characteristic	Definition	Examples
Ignitable	• A liquid waste which has a flash point of less than or equal to 140°F (60°C) as determined by an approved EPA closed-cup test method. • A non-liquid waste which, under standard conditions, is capable of causing a fire through friction, absorption of moisture or a spontaneous chemical change and when	Solvents, oil-based paints, stain, destains, alcohol, partially full aerosol cans, and oxidizers

	ignited, the waste burns so vigorously and persistently that it creates a hazard. • An ignitable compressed gas or oxidizer.	
Corrosive	• A liquid or aqueous waste a with a pH of less than or equal to 2 or greater than or equal to 12.5 is considered a corrosive hazardous waste • A liquid waste that corrodes steel at a minimum rate of .25 inch per year as determined by an approved test method.	Acids, bases, unused boiler treatment chemicals
Reactive	A solid waste that is normally unstable reacts violently with water or generates toxic gases when exposed to water or other materials.	Sodium borohydride, acetic anhydride, aluminum chloride
Toxic	A waste that contains certain listed substances or in excess of specified concentration levels when tested using specific analytical methods.	Barium, lead, chromium, cadmium, silver, arsenic, mercury, methylene chloride, trichloroethylene, chloroform, some chemotherapy agents

For managing hazardous materials and waste, the hospital has the permits, licenses, manifests, and material safety data sheets required by law and regulation; (EC.02.02.12) The hospital properly labels hazardous materials and waste. Labels identify the contents and hazard warnings.

1. EH&S collects, stores and disposes of hazardous waste for the hospital. This program also includes contingency plans and designates training for individuals handling hazardous chemicals and/or waste(s). This includes specific training for departments handling hazardous medications. (See Attachment 1, EH&S Hazardous and Biohazardous Waste Disposal Guide)

2. A Spill Response Team is comprised of members of the EH&S department as well as individuals in other supporting departments. Members of this team receive 40-hour EPA Emergency Responder course before participating in any spill response. All members receive the 16-hour EPA annual refresher training, in-house training. EH&S will report and investigate all hazardous materials or waste spills, exposures, and other incidents. Uncontrolled hazardous materials or waste spills requiring emergency action are reported to Emergency Communications by calling 6-9111.

In the event of an accidental chemical or biohazards waste spill occurs, laboratory staff together with the staff from EH&S spill response team, coordinate the containment and cleanup

accordingly. The containment and cleanup efforts are customized based on the type and volume of the spill and its location.

3. A written hazard communication program describes how the hazardous materials inventory, or chemical list, will be maintained. The program also describes how employees will obtain information regarding the safe use, storage, and disposal of hazardous chemicals. Hazardous waste policies and procedures have been developed and implemented. These policies and procedures were developed through a collaboration of the safety section of the Laboratory Compliance Department and EH&S Department through review and involvement with various departments.

- WFBMC Environmental Health and Safety holds the licenses and permits as required by regulatory agencies for WFBMC. WFBMC Environmental Services maintains a manifest for each shipment of Biomedical, Sharps, and Chemo (non-EPA regulated) Waste. STERICYCLE returns documentation verifying destruction of waste. Certification of destruction is paired with the original waste manifest and maintained by Environmental Services. Storage tank permits are maintained in the Power Plant by Engineering. Safety Data Sheets are maintained by the Safety Team and accessible 24 hours/day through WFBMC Emergency Communications and Security. Hazardous waste is labeled in accordance with the EH&S Hazardous Waste Plan and all chemicals are labeled as defined in the WFBMC Hazard Communication Program Section IV- 5 in the FDS manual.

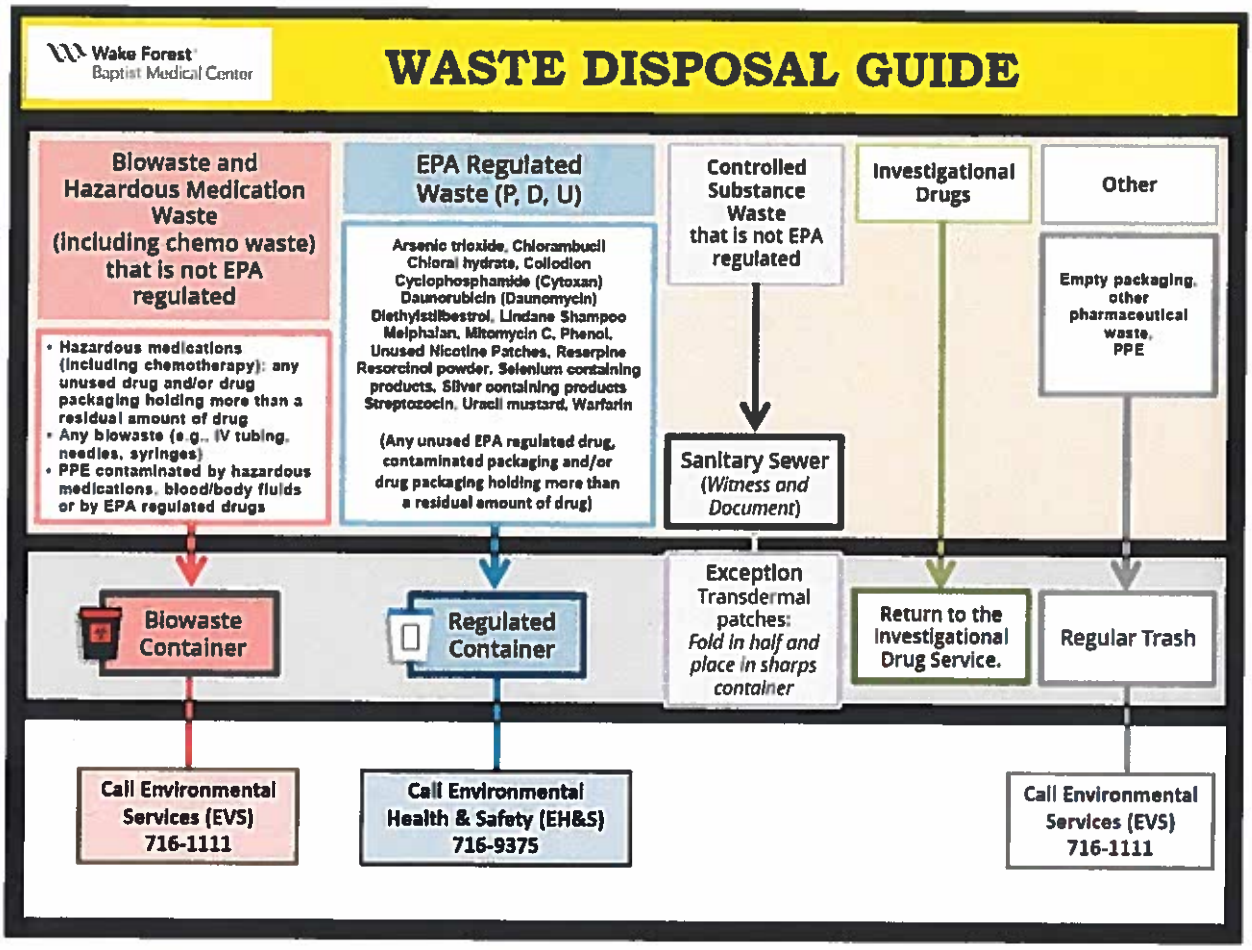
Laboratory waste products are collected at workstations and then brought to centralized locations within the laboratories and labeled for disposal. The waste is then taken by a designated, trained laboratory employee to EH&S for disposal.

Other Pathological waste including routine surgical and biopsy specimen remnants, their associated containers and storage solutions are gathered daily when they are approved for disposal by a designated, trained laboratory employee. This waste is then picked up on a daily basis by an EH&S employee to be properly disposed.

Special OR Pathology waste to include amputation specimens and large specimens that do not fit in our standard containers are chosen and approved for disposal following department policy on a weekly basis. This waste is placed in red biohazard bags and placed in marked closeable plastic bins and are picked up by environmental services and held for appropriate disposal.

Regulated waste generated by the cytology laboratory is separated by type within the Prep lab and collected daily by environmental services. The waste is held until pickup by appropriate disposal company.

Regulated wasted generated in the Autopsy suite is gathered and grouped accordingly. When needed a pickup is scheduled with EH&S to pick up and store the sorted waste for appropriate disposal.



Miscellaneous waste: Other forms of waste generated by labs that cannot be placed in regular trash may include batteries which must be placed into universal battery waste receptacles "sealed buckets". These will be picked up and replaced on request by EH&S.

Other specialized waste generated from the Mass Spectrophotometry Laboratory is disposed of according to the federal regulations, 21 CFR 1317.05A. Most of the drug ampules used in this lab are considered "exempt" by the federal and state DEA agencies; however, it is still required that they be disposed of according to 21 CFR 1317.05A. All drug ampules are stored in the Mass Spec laboratory until a designated amount is obtained. The drug ampules are then given to pharmacy to be disposed of in a "non-retrievable" manner. If necessary it can be requested that a representative from the state of North Carolina DEA will be present for supervised disposal of all drugs.

3) **Review/Revision/Implementation:**
All procedures must be reviewed at least every 2 years.

4) **Related Procedures:**

5) **References:**

Environmental Health and Safety department of Wake Forest Baptist Health

Exempt Chemical Preparations List: Drug Enforcement Administration: Diversion Control Division, Drug and Chemical Evaluation Section

6) **Attachments:**

7) **Revised/Reviewed Dates and Signatures:**

Review Date	Revision(s)	Signature