

Hazardous Waste Section  
File Room Document Transmittal Sheet

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Your Name: Phillip Orozco  
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Facility Name: Duke University Health System (DUHS) Clinical Laboratories  
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**STATE OF NORTH CAROLINA  
DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES  
DIVISION OF WASTE MANAGEMENT  
HAZARDOUS WASTE SECTION**

**COMPREHENSIVE EVALUATION INSPECTION (CEI) REPORT**

**1. FACILITY INFORMATION:**

Name: Duke University Health System (DUHS) Clinical Laboratories  
EPA ID Number: NCR 000 136 531  
Type of Facility: Large Quantity Generator (LQG)  
Facility Location: 4425 Ben Franklin Blvd.  
Durham, NC 27704  
Telephone Number: (919) 613-8450

**2. FACILITY CONTACT(S):**

William Brewer, Director, Environmental Programs - Duke University Occupational & Environmental Safety Office (OESO) 919-668-3218 [brew029@mc.duke.edu](mailto:brew029@mc.duke.edu)  
Kathleen Ingram, Waste operations Manager 919-684-2794 [ingra031@mc.duke.edu](mailto:ingra031@mc.duke.edu)

**3. SURVEY PARTICIPANTS:**

Phyllis Parrot, DUHS Analytical Specialist / Lab Safety Officer; [phyllis.parrott@duke.edu](mailto:phyllis.parrott@duke.edu)  
William Brewer, Director, Environmental Programs  
Karen Trimberger, Environmental Programs Manager  
Phillip Orozco, Senior Environmental Specialist, NCDENR

**4. DATE OF INSPECTION:** June 26, 2012

**5. PURPOSE OF INSPECTION:**

Unannounced audit to determine compliance with regulations described at 40 CFR 261, 262, 265, 268, 273 and 279. Previous CEIs were conducted on July 28, 2011, August 27, 2010, July 21, 2009, January 23, 2008 and November 17, 2006.

**6. FACILITY DESCRIPTION:**

The DUHS Clinical Laboratories is a multi-functional laboratory that contains a number of different laboratories that include: a core clinical laboratory, cytogenetics, cytopathology, histochemistry, histology, molecular pathology, neuropathology, toxicology, and a surgical pathology laboratory.

**General Information:**

- Legal owner of business: Duke University Health Systems
- Legal owner of property: Bayrock Energy
- Square footage of occupied space : approx. 40,540 ft<sup>2</sup>
- Acreage: 3.72
- Operating shifts: 3 shifts, 5 days per week and 2 shifts on Saturdays
- Number of employees: 170
- Water supply (municipal or well): Municipal - City of Durham
- Municipal sewer/septic/on-site treatment facility: Municipal - City of Durham
- Number of on-site wells : None
- Groundwater monitoring wells on-site: None

- Distance to closest off-site well (within 1-mile or unknown) : unknown
- Closest private residence : 4434 Ben Franklin Blvd., The Carolina House of Durham Retirement Ctr.

Names & Titles of the hazardous waste (HW) management group :  
Chris Trunzo, Duke University – Safety and Health Specialist II

**7. HAZARDOUS WASTE STREAMS INCLUDE:**

The bulk of hazardous waste (HW) generated is flammable waste solvent (Xylene & Ethanol) D001/F003/F005 ; Waste / Silver salts D011; and waste Ammonium Sulfide solution D001/D002. Other wastes include: D009, D018; F002 and various P-listed & U-listed waste that may occur when off-spec. material is declared as waste for disposal.

**8. AREAS OF REVIEW AND INSPECTION :**

**Emergency Preparedness & Emergency Responders Awareness (265.37) –**

In order to document compliance with 40 CFR 265.37, I provided Ms. Parrott with the example letters written by our Section. Letters such as these were sent to the appropriate emergency response agencies via certified mail on 7/21/11.

**Contingency Plan (CP)** – The CP was last revised on 3/16/12. The primary emergency coordinator is Chris Trunzo. Dr. Kathy Grant & Phyllis Parrot are listed as alternates.

**Inspection Records (storage)** – Records appeared to be complete.

**Manifests** – Manifests since the last CEI appeared to be complete.

**Training Records –**

Chris Trunzo completed DUHS’ electronic contingency plan training course on 2/6/12, 2/21/11, 4/27/10 and 4/20/09; DOT training on 9/26/08. Dates for other training courses related to hazardous waste management procedures are kept on file at the OESO.

Phyllis Parrot - completed DUHS’ contingency plan instruction on 3/16/12, 5/18/12, 5/16/11, 5/18/10 and 6/01/09

Dr. Kathy Grant – was listed as an emergency coordinator alternate as of 1/15/09. She completed DUHS’ electronic contingency plan training course on 4/17/12, 4/28/11, and 4/21/10.

**Job Descriptions** – Job descriptions for Chris Trunzo, Phyllis Parrot and Dr. Kathy Grant appeared to be in compliance with the requirements.

**Biennial Report** – The 2011 report was submitted on time and dated 2/9/12

**Transporters:**

Republic Environmental Systems PAD 982 661 381  
Heritage Transport, LLC IND 058 484 114

**TSD's:**

Von Roll America, Inc. OHD 980 613 541  
Republic Environmental Services PAD 085 690 592  
Heritage Environmental Services LLC NCD 121 700 777

**Accumulation Areas:**

Core Lab

Histology – the bulk of HW on site is flammable waste solvent (Xylene & Ethanol) generated from tissue stain processor equipment in this lab. Approximately 35 gallons of waste may be generated daily. A single processor may hold approximately 17.5 gallons of solvent. This lab also generates D011 waste

from solutions with traces of silver present.

Cytogenetics Labs – D001/F003 waste in 4-liter bottles. This lab may also generate D011 waste containing Silver salts.

Cytogenetics Processing – Five gallon red safety cans are used to hold HW.

DNA/RNA Extraction – Room 147 - proposed

**Storage Areas:**

The main storage area is located in the warehouse area of the facility. Waste chemicals are collected from the labs, segregated by hazard, identified as hazardous waste and stored in either the flammable storage room or on shelves in the waste storage area of the warehouse.

Fifty-five gallon containers are maintained in a separate flammable storage room. A distillation unit is also used and is located just outside the flammable storage room.

**External Condition of Facility:** No adverse conditions observed.

9. **WASTE MINIMIZATION:** A written plan is maintained at the facility.

10. **SITE DEFICIENCIES:**

**No violations cited.**

11. **COMMENTS / RECOMMENDATIONS:**

i. Determine if a satellite accumulation area will need to be created in Room 147.

ii. In the Cytology Processing lab, you may wish to consider adding hazardous waste labels to the top of some containers in the satellite accumulation areas so as to be more visible.



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**Phillip G. Orozco**

**Senior Environmental Specialist, NCDENR**

**Date: August 9, 2012**