Indiana University Waste Management Program

April 15, 2015

1. INTRODUCTION

1.1. Purpose and Background
Indiana University Environmental Health and Safety (IUEHS) has developed this Program to establish standard procedures for safe, environmentally sound and compliant management of wastes generated on any IU campus in accordance with all local, state and federal regulations. These regulations include but are not limited to the Environmental Protection Agency’s Resource Conservation and Recovery Act (RCRA) hazardous waste regulations 40 CFR 239-282, and the Toxic Substances Control Act (TSCA) polychlorinated biphenyls (PCB) regulation 40 CFR 761.

1.2. Scope
This Program applies to all faculty and staff of Indiana University that participate in any activity that results in a general refuse product of any kind, including but not limited to laboratory research, maintenance, grounds keeping, and academic instruction. The objectives of this Program are to protect human health and the environment in compliance with all government regulations by preventing the release of contaminants through sound, best management practices for waste generation, handling and disposal.

2. AUTHORITY AND RESPONSIBILITY

2.1. Indiana University Environmental Health and Safety (IUEHS) is responsible for:
- Developing and implementing the Waste Management Program;
- Providing training and/or technical guidance on waste management requirements and procedures to all affected employees;
- Ensuring regulatory compliance and acting as the University liaison for regulatory agencies that oversee waste related activities and/or conduct on-site inspections;
- Maintaining waste contracts with vendors for the respective campuses; and
- Facilitating chemical wastes shipments.

2.2. Departments are responsible for:
- Enforcing Waste Management Program provisions among employees;
- Providing all necessary resources to manage all waste generated within the department in a safe and compliant manner;
- Reporting waste management non-compliance to IUEHS for the respective campus immediately upon discovery;
- Ensuring that all staff utilize the services of IUEHS for chemical waste pick-up and disposal for the respective campus; and
- Funding regulatory fines levied by state or federal agencies that result from mismanagement of waste by individual(s) within a department.
2.3. **Principal Investigators and/or Supervisors** are responsible for:

- Ensuring employees have access to safety data sheets, and know the hazards of all chemicals used in their area;
- Ensuring employees and students are properly instructed in the requirements of this Program;
- Ensuring standard operating procedures based on this Program are developed for waste management and handling emergencies;
- Ensuring employees and students are supervised as needed when performing standard operating procedures;
- Enforcing Program requirements within their areas of responsibility; and
- Contacting IUEHS for the respective campus if a regulatory inspector arrives.

2.4. **Employees** are responsible for:

- Learning and following Waste Management Program requirements for comprehensive waste management;
- Assuming personal responsibility for compliant identification, labeling, storage and disposal of all wastes generated as a result of his or her job duties; and
- Developing and implementing waste reduction methods whenever feasible.

3. **Program Elements**

3.1. **General Requirements**

Waste materials are typically divided into four broad categories: biological, chemical, general refuse, and radiological. Each of these waste types has unique handling and disposal protocols based on regulations and best management practices.

General refuse is not covered by this Program except for certain non-regulated chemicals that require special handling in order to avoid impermissible or unsafe disposal.

Radiological and biological wastes are covered in the Radiation Safety Manual and IU Biosafety Manual respectively, and are therefore not covered by this Program.

Campus dumpsters and compactors must remain free of liquid or semi-liquid waste of any kind, untreated biological waste, regulated hazardous waste, and radioactive waste. With limited exceptions, restrictions are also in place for drain disposal of certain waste types and disposal of debris that is contaminated with any of these waste types.

The primary focus of this Program is on chemical waste handling and disposal. This waste category is divided into five types based on regulatory requirements:

- **Hazardous waste** as defined in 40 CFR 261, incorporated by reference in 329 IAC 3.1-6;
- **Universal waste** as defined in 40 CFR 273, incorporated by reference in 329 IAC 3.1-16;
- **Polychlorinated biphenyl (PCB) waste** as defined in 40 CFR 761, incorporated by reference in 329 IAC 4-6;
- **Electronic-waste** as defined in 329 IAC 16; and
- **Non-regulated waste** with special handling requirements; this class includes materials for sewer disposal as well as materials that are not regulated, but present safety or logistical concerns due to their physical characteristics.

Detailed guidance for waste management is published in the Indiana University Environmental Health and Safety Waste Management Guide found in Appendix B of this Program.
3.2. Additional Guidance

Certain additional materials require special handling due to complex regulatory oversight. These can include:

- **Controlled Substances**: The U.S. Drug Enforcement Agency (DEA) regulates Schedule I-V controlled substances according to 21 CFR 1300-1321. Compliant recordkeeping and disposal of these materials is the responsibility of the authorized registrant. Registrants must be aware that certain controlled substances are also regulated as hazardous waste under RCRA. IUEHS can provide additional guidance, and has limited ability to provide disposal for controlled substances in accordance with DEA requirements. See the IU IU Controlled Substances Program for Researchers (Non-Practitioners).

- **Mixed Waste Categories**: Wastes that contain any combination of hazardous, biological or radiological waste can pose disposal challenges for IUEHS. The protocols for such mixtures vary by campus, and are outlined in the campus-specific waste management procedures found in the *Indiana University Environmental Health and Safety Waste Management Guide* (Appendix B).

4. TRAINING AND RECORDKEEPING

IUEHS personnel, trained in hazardous waste management procedures, will provide classroom or online instruction to incoming employees that will be performing waste handling functions to ensure that employees understand their roles and responsibilities in order to comply with applicable waste management regulations.

It is the responsibility of supervisors, and/or principal investigators in the case of laboratories, to ensure that proper on-the-job training is completed and includes standard operating procedures for waste handling and emergencies.

5. REFERENCES

- DEA Controlled Substance Regulations 21 CFR 1300-1321
- Electronic Waste Regulations 329 IAC 16
- Indiana University Mercury Reduction-Elimination Program
- IU Bloomington Waste Pick-up Request Form
- IUPUI Waste Pick-up Request Form
- Resource Conservation and Recovery Act, hazardous waste regulation 40 CFR 239-282
- Toxic Substances Control Act (TSCA) PCB regulation 40 CFR 761

6. REVISIONS

New Document – April 15, 2015
APPENDIX A - Glossary

**Best Management Practices** – Methods or techniques found to be the most effective and practical means in achieving an objective (such as preventing or minimizing pollution) while making the optimum use of the firm's resources.

**Biological Waste** – Material that contains, or may contain pathogens that can cause disease in human or animals, or that poses any other risk requiring autoclave treatment or disinfection before final disposal.

**CFR** – Code of Federal Regulations

**DEA** – Drug Enforcement Agency

**Electronic Waste** – Includes electrical or battery operated devices, or appliances such as computers or lab equipment that require recycling or special disposal due to the presence of toxic metals or other contaminants.

**EPA** – Environmental Protection Agency

**Hazardous Material** – Any substance regulated by the Department of Transportation because the material poses an unreasonable risk to health, safety, and property during transport.

**Hazardous Waste** – Listed or characteristic waste regulated for handling and disposal as defined by the EPA Resource Conservation & Recovery Act.

**IAC** – Indiana Administrative Code

**Non-Hazardous Waste** – Waste that does not meet the definition of a RCRA hazardous waste; but may still be regulated as a hazardous material under Department of Transportation Regulations during transportation.

**Non-Regulated Waste** – Waste that does not meet the definition of a RCRA hazardous waste, and also does not meet the definition of a Department of Transportation hazardous material during transportation.

**Polychlorinated Biphenyls (PCB) Waste** – Waste contaminated with polychlorinated biphenyls in excess of 50 parts per million.

**RCRA** – Resource Conservation and Recovery Act

**TSCA** – Toxic Substances Control Act

**Universal Waste** – Certain wastes that meet the definition of a hazardous waste but have modified regulatory requirements to encourage recycling. Includes batteries, fluorescent light bulbs, mercury containing equipment and certain pesticides.

**Waste Chemical** - Any expired, spent or unwanted chemical or chemical mixture, including hazardous and non-hazardous wastes.

**Waste Minimization** - Procedures to minimize the volume and/or toxicity of hazardous waste produced at the University.