

## Improve Environmental Performance in Academic Laboratories

# Managing Laboratory Hazardous Waste

An Introduction to the Academic Laboratories Rule Subpart K



## **Subpart K**

# Alternative Generator Regulations for Managing Hazardous Waste in Academic Laboratories

The U.S. Environmental Protection Agency (EPA) added 40 CFR Part 262 Subpart K to the Resource Conservation and Recovery Act (RCRA) hazardous waste generator regulations in December 2008. Subpart K provides standards for managing hazardous waste in academic laboratories at eligible academic entities as an alternative to the satellite accumulation area generator regulations. Subpart K protects public health and the environment by presenting alternative generator requirements better suited to the specific circumstances of teaching and research laboratories.

The provisions of Subpart K will bring about safer management of hazardous waste in academic laboratories by:

- Requiring hazardous waste determinations to be made by trained professionals, rather than students
- Requiring hazardous waste to be removed from the laboratory every six months
- Allowing eligible academic entities the flexibility to decide when and where on-site hazardous waste determinations are made
- Offering incentives for removing from the laboratories old and expired chemicals that may pose risks
- Requiring the development of a Laboratory Management Plan, in which entities specify best waste management practices



### Subpart K's Alternative Regulations Offer Significant Benefits

### For Participating States and Eligible Academic Entities

#### **Increased Laboratory Safety**

- More accurate hazardous waste determinations by transferring the responsibility for making hazardous waste determinations to experts
- Requires training for students and laboratory workers
- Laboratory clean-out incentives promote reduction of stockpiles of potentially dangerous old chemicals stored in laboratories
- Time-driven removals ensure hazardous waste is removed from laboratories on a regular basis
- Required Laboratory Management Plan ensures safer laboratory practices and increased awareness of hazardous waste management



### Subpart K's Alternative Regulations Offer Significant Benefits

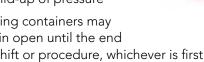
### For Participating Eligible Academic Entities

#### **More Flexibility**

Choice of when and where on-site to make hazardous waste determinations.

Performance-based container management standards ensure safe storage and prevent leaks, spills, and emissions into the air while allowing for the following appropriate closed container exceptions:

- Venting is allowed when necessary for proper operation of laboratory equipment such as HPLCs
- Venting is allowed to avoid dangerous situations such as build-up of pressure
- Working containers may remain open until the end of a shift or procedure, whichever is first

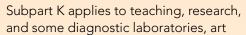


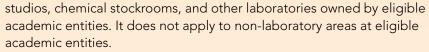
#### **Efficiencies and Cost Savings**

- Laboratories not required to count unused hazardous wastes generated during once-a-year laboratory clean-out toward generator status, which reduces episodic generation and lowers costs
- Thirty days allowed for once-a-year laboratory clean-out and no volume limit for clean-out materials
- On-site consolidation means less vendor time on-site and fewer partially full containers
- Increased laboratory safety leads to reduced liability and the potential for lower insurance rates

### **Eligible Academic Entities**

- Colleges and universities
- Teaching hospitals owned by or formally affiliated with a college or university
- Non-profit research institutes owned by or formally affiliated with a college or university







Subpart K is an optional rule. States may choose whether to adopt Subpart K. Once a state adopts Subpart K, eligible academic entities in that state may opt into the Subpart K regulation or remain subject to the pre-existing generator standards (i.e., the satellite accumulation area regulations, 40 CFR 262.34(c)).

## Tailored for the Academic Laboratory Environment

Subpart K is a new EPA generator regulation designed for the academic sector. It addresses the unique hazardous waste generation patterns of academic laboratories:

- Hundreds of different hazardous wastes that vary over time
- Small volumes of each waste
- Many points of generation
- Hazardous waste generated by students with high turnover, minimal training, and limited accountability

# Take the next step toward improving environmental performance in your academic laboratories

Visit www.epa.gov/waste/hazard/generation/labwaste to find the final rule titled, "Alternative Requirements for Hazardous Waste Determination and Accumulation of Unwanted Material for Laboratories Owned by Eligible Academic Entities"

- Federal Register notice; December 1, 2008; 73 FR 72912
- Code of Federal Regulations; 40 CFR Part 262 Subpart K

The EPA Web site above also provides tools and resources for states and eligible academic entities that want to adopt and opt in to Subpart K.

To learn if Subpart K is in effect in your state—and for assistance in implementing the new regulations in your academic laboratory—contact your state agency or the EPA Labs Team:

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