



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 applies to teaching, research, and some diagnostic laboratories, art studios, chemical stockrooms, and other laboratories owned by eligible academic entities. It does not apply to non-laboratory areas at eligible academic entities.

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:

Jessica Young
young.jessica@epa.gov
703.308.0026

Kristin Fitzgerald
fitzgerald.kristin@epa.gov
703.308.8286



U.S. Environmental Protection Agency
Office of Resource Conservation and Recovery
Mail Code (5304P)
1200 Pennsylvania Avenue, NW
Washington, DC 20460
www.epa.gov/waste/hazard/generation/labwaste
EPA 530-F-09-019