

# Jerome in Electronic Recyclers Industry

The electronics recycling industry faces unique challenges in managing mercury vapor emissions. Mercury is commonly found in electronic devices, such as older LCD screens and fluorescent lamps, and is released during the separation, processing, and disposal phases. These emissions pose serious risks to worker health, facility safety, and regulatory compliance.

AMETEK Brookfield's Jerome Mercury Vapor Analyzers, specifically the Jerome J405 and Jerome J505, provide reliable, portable, and precise tools for detecting and mitigating mercury vapor. These instruments empower electronics recyclers to maintain a safe work environment and meet environmental standards.

## The Dangers of Mercury Vapor in Electronics Recycling

Mercury is highly toxic, and its vapor can be released during common recycling operations, such as:

- **Lamp Crushing and Disposal:** Fluorescent lamps contain mercury that can escape into the air during processing.
- **Device Separation:** LCD screens and other electronic components may release mercury during dismantling or shredding.
- **Waste Handling:** Improper storage or processing of mercury-containing components can lead to hazardous vapor emissions.

Exposure to mercury vapor can cause severe health effects, including neurological damage, respiratory issues, and long-term organ dysfunction. Strict regulatory standards require recyclers to monitor and manage mercury emissions to protect workers and comply with environmental laws.

## How Jerome Mercury Vapor Analyzers Help Electronics Recyclers

The Jerome J405 and Jerome J505 Mercury Vapor Analyzers are essential tools for electronics recycling facilities, offering advanced features to ensure accurate and effective monitoring.

### Jerome J405:

- **Sensitivity:** Detects mercury vapor concentrations as low as  $0.5 \mu\text{g}/\text{m}^3$ , ensuring early detection and intervention.
- **Portability:** Lightweight and robust, the J405 is ideal for spot checks and routine monitoring across your facility.
- **Ease of Use:** Simple interface and operation make it accessible to all staff levels.

### Jerome J505:

- **Advanced Sensitivity:** Utilizes atomic fluorescence spectroscopy to detect mercury vapor at concentrations as low as  $0.05 \mu\text{g}/\text{m}^3$ , providing unparalleled accuracy for demanding applications.
- **High-Precision Readings:** Ideal for compliance monitoring and detailed emissions studies.
- **Durability:** Designed for harsh industrial environments, including recycling facilities.

## Applications in Electronics Recycling Facilities

AMETEK Brookfield's Jerome Analyzers support key applications in the recycling process:

- **Lamp Crushing Operations:** Monitor mercury vapor levels during the processing of fluorescent lamps to protect workers and ensure compliance.
- **Electronic Device Separation:** Detect and manage mercury emissions when dismantling electronics, such as LCD screens, switches, and other mercury-containing components.
- **Storage and Waste Management:** Continuously monitor mercury levels in storage areas to prevent leaks and minimize environmental impact.
- **Regulatory Compliance:** Provide accurate data to meet OSHA, EPA, and local air quality standards.

## Key Features of Jerome Mercury Vapor Analyzers for Electronics Recycling

- **High Sensitivity:** Detect even trace levels of mercury vapor to address risks before they escalate.
- **User-Friendly Operation:** Streamlined design allows for quick deployment and efficient use by all personnel.
- **Portable and Versatile:** Move easily between workstations, processing lines, and storage areas.
- **Rugged Durability:** Built to withstand the challenging environments of electronics recycling facilities.

## Why Choose Jerome for Mercury Detection in Electronics Recycling?

For decades, AMETEK Brookfield's Jerome Analyzers have been trusted by industries worldwide for their precision, reliability, and durability. The Jerome J405 and J505 deliver the sensitivity and performance electronics recyclers need to:

- Protect workers from harmful mercury vapor exposure.
- Safeguard facilities from contamination risks.
- Maintain compliance with strict environmental and safety regulations.