Niton UK Ltd

Case Study

Recovery 1 identifies asbestos promptly and accurately with Thermo Scientific

Located in Tacoma, Wash., Recovery 1 is a resource recovery, recycling and research facility dedicated to forward-thinking solutions to sustainable waste management systems. Recovery 1 receives an average of 200 tons of material each day, and has diverted more than 1.4 million tons of material from landfill use and disposal since it began operations more than two decades ago.

In order to help its customers—including contractors, developers, manufacturers and material suppliers manage their waste streams, Recovery 1 must ensure that every load of material entering the facility is free from harmful elements, most notably asbestos. Failure to immediately identify asbestos-containing material can impact the health and safety of Recovery 1's workers as well as employees at recycling end-user facilities.

Thermo Scientific microPHAZIR AS benefits

Recovery 1 has been using on-site polarised light microscopes to identify asbestos containing materials missed during the AHERA survey or by a contractor who did not differentiate between new construction and renovation activities.

Nearly a decade ago, Recovery 1 adopted near-infrared technology from Thermo Fisher Scientific for detection and identification of asbestos, and in recent years, the facility's operators have established the Thermo Scientific microPHAZIR AS asbestos analyser as their instrument of choice.



The microPHAZIR AS has benefited Recovery 1 in the following ways:

- Fast analysis: On-site employees can point and shoot and obtain accurate results in seconds.
- Easy to operate: Workers screening material can easily be trained and do not need to be experts in NIR spectroscopy to make decisions based on device's results.
- Cost savings: By using the handheld device, Recovery 1 can avoid long lead times waiting for lab results.
- Compliance Plus: More than 15 years ago, regulators suggested that a "Good Faith Survey" be acquired when demolition debris is accepted. Recovery 1 staff includes six AHERA inspectors who review the survey before loads are accepted and inspect every load for suspect material and lead-based paint, regardless of how the truck driver describes the load. The ability to test for asbestos in suspect materials helps the inspectors quickly determine if a load is acceptable for processing.



Case Study

Handheld NIR technology from Thermo Fisher Scientific helps Recovery 1 solve asbestos challenge

Using the microPHAZIR AS analyser

Recovery 1 identified near-infrared (NIR) spectroscopy as the technology of choice, and Thermo Fisher Scientific as the manufacturer of choice. In 2010, Recovery 1 purchased the Thermo Scientific microPHAZIR AS asbestos analyser, a handheld NIR instrument that enables rapid, in-the-field screening and identification of all six types of regulated asbestos fibers. The device alerts the user to any presence of asbestos, rather than the percentage of asbestos in suspect material, a fact that works well for Recovery 1 as any asbestos is considered too much.

Demolition/renovation loads entering the facility must be accompanied by an asbestos survey from the demolition/renovation site, but that's not a fail-proof method for ensuring the absence of asbestos. If Recovery 1 employees see potential asbestos contamination, they can easily access the portable microPHAZIR AS for an immediate test. If the analyser shows a positive result, the sample can then be taken to Recovery 1's on-site lab for confirmation. Deploying the microPHAZIR helps to quickly establish a comfort level that the load can or cannot be accepted for processing.

Dependability and satisfaction

Recovery 1 is laser focused on worker safety, and the microPHAZIR AS has allowed them to build an impeccable track record for asbestos detection and abatement. Utilisation of the microPHAZIR AS analyser has brought "peace of mind" to Recovery 1 management, thanks to its speed, reliability, accuracy and ease of use and maintenance.

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According to Chuck Hoffman, auality control manager for Recovery 1, "We screen tons of material every day from construction and demolition sites, and the microPHAZIR is one of the best tools we have. All our loads be and have to screened inspected, and when it comes to asbestos, we take it very seriously because it affects health and safety. Without the microPHAZIR, it would be a lot more difficult for us to detect asbestos immediately and remove it from our premises. The analyser makes my job a lot easier."

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