7 best practices for scrap metal recycling

All kinds of metal and alloys come into scrap yards on a regular basis, often from unknown sources and possibly with mislabeled documentation. Accurate alloy identification with handheld XRF analysis and radiation awareness is paramount to your ability to keep workers safe and satisfy your customers. Here are 7 best practices that can help your scrapyard stay profitable.

1 Grind it clean

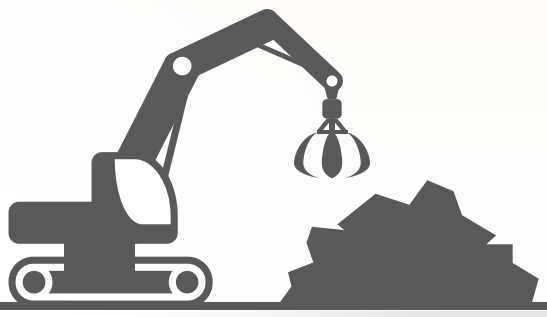
Remove rust, paint, coatings, scale, dust or any other materials that could interfere with the XRF analyzer's chemical analysis of the underlying metal.

2 Take layers of metal apart

Disassemble scrap first and take layers of metal apart to accurately identify precious metals, varying alloy grades, and potentially hazardous metals such as lead.

3 Grind it to a powder

Certain applications benefit from grinding metal into a powder before XRF analysis. This includes transforming spent lithium-ion battery materials into black mass and recovering Pt, Pd, and Rh from spent catalytic converters.



4 Make the close calls

Stringent requirements may require close alloys such as 304 and 321 stainless steel to be sorted separately. Take more or longer measurements. You can also use a larger sample that covers the analyzer's full aperture.

5 Care for the analyzer window

Sharp edges on turnings, clingy powders and dust from fumes can still impact windows on rugged-built analyzers. Order replacements as needed if you see scratches, coatings or other damage on analyzer windows.

6 Know about XRF radiation

Handheld XRF analyzers are built to protect users from radiation. Users can still benefit from training on the power of the analyzer's directed radiation beam and how to keep everyone safe from unnecessary exposure.

7 Protect from unknown radiation

Analyze the scrap metals coming into your facility with real-time radiation detection equipment to keep your workers and products safe from unknown radioactive materials.

Perform fast, accurate elemental analysis virtually anywhere – in seconds – with rugged Thermo Scientific™ Niton™ handheld XRF analyzers. And get comprehensive, real-time data on radiation hazards with Thermo Scientific radiation detection and monitoring systems.

Learn more at **thermofisher.com/scrap**

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