

Precious Metals Recovery and Refining



60 YEARS OF EXCELLENCE

Platinum ■ Palladium ■ Rhodium ■ Ruthenium ■ Gold ■ Silver ■ Rhenium

Recovering PGMs and other precious metals from spent hydrocarbon and chemical processing catalysts

We'll work together to maximize your returns, lower your costs, increase your profits, and assure your peace of mind

Sabin service—consider these key advantages:

- In-plant pre-burning capability for one stop, single source processing
- Continuous sampling system yields statistically valid samples
- State-of-the-art laboratory for accurate and precise analysis
- Electric arc furnace technology maximizes precious metals recovery
- Compliance with all local, state, and federal environmental and safety regulations
- Compliance with the Anti-Money Laundering Rule of the USA PATRIOT Act
- Complete transportation services (Sabin International Logistics Corp.)
- Sixty years of success built upon technology, reliability, and trust



Sabin Metal refines spent catalysts – pellets, beads, extrudates, and monolithic structures – from hydrocarbon and chemical processing catalysts and from catalytic abatement systems. We'll maximize returns of PGMs and other precious metals used in soluble and insoluble alumina, silica-alumina, zeolite, and carbon supported catalysts. Precious metals are also recoverable from many

waste by-products associated with catalyst materials such as filter cakes, papers, cloths, polishing filters, floor sweepings, and protective clothing.

If your organization uses PGMs (platinum, palladium, ruthenium, and rhodium) or gold, silver, or rhenium, to produce or process hydrocarbon or chemical products, we'd like to show you how

we can provide highest possible returns of precious metals from your spent catalysts, and how we can help add value to your business.

As the largest independent precious metals refiner in North America (with refineries and customer service facilities throughout the world), we use the industry's most advanced sampling, assaying, and processing techniques. Our turnkey in-house capabilities – including point-to-point transportation virtually anywhere in the world – and in-plant pre-burning capability help reduce costs, speed processing, meet all applicable environmental standards, and assure maximum return values of precious metals.

Maximizing value for your precious metal bearing catalysts

Sabin Metal uses the industry's most advanced analytical and processing capabilities, working to lower recovery and refining costs while speeding these processes to help you realize substantial savings (perhaps thousands or even hundreds of thousands of dollars each year).

For example, prior to the sampling procedure, our unique in-plant pre-burning system eliminates moisture, carbon, sulfur, and other contaminants to further assure highest possible sampling accuracy. To produce statistically valid samples, we employ an advanced continuous catalyst sampling system which generates homogenous, consistent, and reproducible intermediate samples that represent — as accurately as possible — the entire lot of spent catalysts.



This electric arc furnace represents the latest technology for refining spent PGM catalysts.

Sabin's analytical laboratory uses advanced X-ray fluorescence equipment, atomic absorption (AA), and inductively coupled plasma (ICP) emission spectroscopy, and proven volumetric, gravimetric, and fire assay techniques.

Environmental considerations — what you need to know

Sabin's environmental concern and conservation policies are renowned throughout the world and are vital for your protection. Our refineries are considered the most sophisticated of their kind for safely processing precious metal bearing materials. Process exhaust is managed using advanced air pollution control systems. All hazardous materials are disposed of according to strict environmental compliance standards. We work closely with appropriate regulatory agencies on issues relevant to environmental compliance, and with our customers to help them understand and meet environmental regulations that may affect them. When it comes to protecting our environment — and your financial interests as well — Sabin Metal is unique among refiners.



Inductively coupled plasma (ICP) emission spectroscopy helps assure accurate PGM analysis of spent catalysts samples.



How to get more information . . .

Tell us about your precious metals management program and recovery requirements. Chances are we can offer you practical, common sense, and profitable options for maximizing returns of precious metals from your spent process catalysts and other production by-products. **Let us hear from you today.**

Request free in-house plant survey to determine precious metals sources, and visit us at sabinmetal.com.

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