

Overseas Market Information



Lead Industry in Poland

In 2002, Poland, one of the leading net exporters of lead, became a net importer of this metal. For the domestic extractors of lead the change marks a new era.

According to the data from the Central Statistical Office (GUS), in late 2001, Poland had 14 deposits of copper ore, out of which five were exploited, and 21 deposits of zinc and lead ore, out of which three were exploited. The numbers are elusive in this case, however. Many deposits are too expensive to exploit. Those containing zinc and lead ores edge exhaustion, and will be finished by the end of this decade. The deposits of copper ores will last until the end of the next decade, at the longest.

Deposits of metal ores, and their reserves (as at the end of December, 2001)

Ores	Number of deposits		Total	Documented deposits in million tons	
	Total	Running		Used commercially	Decrement versus 2000
Copper	14	5	2,447	1,529	-3.3
Zinc and Lead	21	3	180	41	-38.3

(Source : GUS)

The shrinkage of ore deposits delivered a blow to the domestic metallurgy of zinc and lead. Their output has been decreasing for three years. In 2002, the market share of the imported refined lead hit 64% of the total domestic consumption, a dramatic growth since 1999, when the imports comprised only 12% of the consumption. This situation took place just before the market conditions of lead producers began to improve - especially in case of those who output arsenical lead, and lead alloys of silver and limestone. Polish metallurgical plants are capable of processing those metals.

The market of refined lead, in '000 tons

	1999	2000	2001	2002
Production	64.0	45.4	28.8	34.0
Imports	7.8	13.5	12.2	20.5
Exports	7.1	8.5	9.8	21.2
Domestic Consumption	64.9	50.0	32.9	32.3
Share of imports in domestic consumption (in %)	12.1	27.1	37.2	63.6

* The table does not list the amounts of reserves, but they are included in "Domestic Consumption"

(Source : GUS)

Annual rates of battery retrieval and recycling, in %

Type of battery	2002		2003		2004		2005		2006		2007	
	R	Rec	R	Rec	R	Rec	R	Rec	R	Rec	R	Rec
Lead (acid)	AR	AC	AR	AC	AR	AC	AR	AC	AR	AC	AR	AC
Nickel - Cadmic large-size	20	20	30	30	40	40	50	50	60	60	70	70

R - retrieval, Rec - recycling, AR - all registered, AC - all collected

The benchmark prices of lead at the London Metal Exchange shape up the prices in Poland. In 2000, the average price was at USD 458.86 per tone, but had a constant growing tendency.

By end of November 2003, the price went over USD 630 per tone, while in early July, over USD 880 per tone in the spot trading.

According to the International Lead and Zinc Study Group, the world demand for lead will keep on growing at 2% annually, to reach 7.5 m tones by 2010. The growing demand means growing prices.

Tricky business

What happens when a deposit has been exhausted? The mine closes down, while the area of exploitation undergoes some landscape engineering, including trees planting and the likes. This is what happened to zinc and lead ore extractors in the town of Brzeziny, the town of Miasteczko Slaskie, and the town of Bytom, in the Upper Silesia region.

Usually, along with the mines, their neighbouring metallurgical plants discontinue too. That was why in Silesia three companies that processed colour metals had to close down. Some other are still in operation, processing ores sourced from the mine waste dumps, or recycle from industrial waste. Those include the metallurgical plant Orzel Bialy SA of Bytom, and Baterpol Sp. zo.o. of Swietochlowice. They specialize in recycling of car batteries from which they source lead, and propylene (from battery containers). Orzel Bialy also extracts sulphur acid.

Given the numbers of wrecked cars are growing, the recycling business should promise fat profits. Each car has at least one battery, usually a lead one. Such battery is a delayed-action ecological bomb, when thrown away in the waste. This assumption was the basis of the business plans that the two companies developed. However, they must have had some numbers wrong as presently they utilize only one third of their processing potentials.

A system that functions but does not work

After many years of discussions and model researching, in May 2001, the parliament passed a bill that makes it obligatory for companies to control the disposal of certain materials. Additionally, the bill sets up certain fees for depositing and recycling of hazardous materials. In the light of the new legislation, the retailers of car batteries are obliged to accept used car batteries. If the buyer of the new battery does not turn in the old battery, the retailer charges the buyer with PLN 30 as a deposit to be returned to the purchaser when he/she handles in the old battery.



Therefore, the system works as both sides of the deal are forced to comply with the new regulations with a system of fees, deposits, and fines.

Indeed, it does work, at least in the light of the reports produced by the Ministry of Environmental Protection. According to the reports, the buyers of all new car batteries handled in their old batteries to the retailers. The batteries then underwent the process of recycling.

The system works in deals where old batteries are exchanged for new ones. The batteries sourced from wrecked cars are out of the system. This segment of the market has been rapidly growing.

Grey sphere

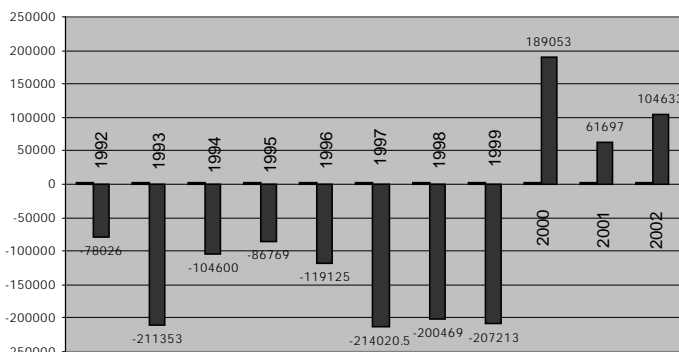
“According to our estimates, approximately 5% of all registered vehicles are wrecked each year, which translates into some 700,000 vehicles,” says Jerzy Izdebski, the Secretary of Vehicle Recycling Forum (SFRS), a trade association. “Meanwhile, the official processing companies have counted some 70,000 vehicles accepted for recycling each year, since 2001. In 2004, the number will be lower,” says Izdebski.

The decline is a result of the underground recyclers, whose number is estimated at 1,500. They steal clients from the 667 licensed vehicles recyclers authorized to issue proper documentation stating that a car has been properly, that is legally, disposed of. The real problem, however, is that lack of law enforcement, which allows many illegal “recycling” entities to do business in the grey sphere of the car parts trade. They do sell many parts, but not all of them. The stuff with no retail value is left behind. In addition, the illegal traders have to dispose of the liquids - including those from the batteries. It is anybody’s guess how many litres of sulphur acid penetrate into the ground below ordinary waste storages.

“Nobody demands car-disposal documentations in Poland any more. If someone is in need of such document, they can purchase one at illegal wreckage dumps,” says Izdebski. In his view, those who dispose of their cars properly and thus receive the proper documentation do sell the documents to the illegal traders.

The trade in the documentation has developed to a large scale. Car registration documents sell for between PLN 2,000 to PLN 20,000, according to SFRS experts. The market is supported by criminals who intend to legalize in Poland the vehicles they had had shipped from other parts of Europe, mainly Germany. In addition, car insurance companies are fuelling the market, as they would rather clear up the damages when the clients handle the repairs on their own.

Increase in numbers of cars over the number of cars with first registration



(Source : SFRS)

The process of illegal trade in car parts, including batteries, intensified in 2000. That year several market shaping factors coincided. The first was the delay of enforcing new forms of tracking the vehicles, their drivers, and their insurance track records. The new

form, the Central Register of Vehicles had been delayed for another year. Also in 2002, the demand for new cars dropped as the duty tax for second-hand vehicles purchased abroad, shrunk. Yet another factor took place - the insurance companies resolved to trigger the clients into handling car reparations on their own. Because of all those factors, since 2000, the number of second hand vehicles grows faster than the number of the vehicles that are registered for the first time.

In limbo

Orzel Bialy is a recycling specialist with the most advanced technology in Poland at its disposal. It is capable of recycling 120,000 tons of scrap battery per year. In other words, Orzel Bialy can source 64,800 tons of lead, which is more than the total output in the industry record year - 1999. In addition, the company can recycle several thousand tons of fine polypropylene, and the electrolyte liquid that can be reapplied in new batteries after a refining process. The entire recycling process is carried out in three separate facilities that make use of the state-of-the-art technology and management. The modernization of the metallurgical department in 2001 led to opening a new production line of high quality alloys, which, complies with all environment protection standards.

Production potential of Orzel Bialy (tons per year)

Facility	Potential
Battery recycling	120,000
Lead production	36,000
Refinery	50,000

Source : Company data

“Presently, we are capable of generating refined lead with the fineness of 0.9998. Soon, we will be able to output the highest quality stuff of the 0.9999 fineness,” says Zbigniew Rybakiewicz, Company President. “In addition, we will join in the elite club of lead alloys producers, who can charge for their products twice as much as can the producers of ordinary lead,” Rybakiewicz says.

According to Rybakiewicz, the company experienced serious financial problems for several years. However, the situation improved following a structural realignment and change of ownership structure (presently a 60% equity is owned by the company Polskie Przedsiębiorstwo Ekologiczne Sp. z o.o., 25% by the Treasury), as well as the Board of Executive Directors. The company has managed to generate operational profits already, while it expects to reach profitability on the entire business operations in 2005.

The results of the reforms that Orzel Bialy has implemented could have been more far-reaching, had it not been for two problems.

One is the insufficient supplies of used batteries, already mentioned above. The next is caused by the increased exports of pure non-refined lead. The metal is exclusively sold by Przedsiębiorstwo Handlu Metalami KGHM Metraco Sp. z o.o. Since presently, the Legnica based Metraco sells most of its lead abroad. Consequently, there is not enough rough material for Orzel Bialy to utilize its refining potential.

Another recycling specialist, Baterpol, has been facing similar problems as Orzel Bialy has, but in much smaller scope. In search for the rough materials Baterpol reached as far as Lithuania. Unfortunately, both companies cannot reach out to the largest European Market of second-hand car batteries - that of Germany, as individual German lands have banned exports of batteries. Meanwhile, however, Germany, as a federation, is willingly exporting used vehicles.

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(Source : Business News Poland dated July, 2004 through Embassy of India, Warsaw)