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CONTAMINATED IMPORTS

Finds of Radioactive Steel on the Rise in Germany

By Christian Schwägerl

German authorities in recent months have found a disturbingly large amount of radioactive steel in factories across the country. Much of the contaminated metal is thought to have originated in India.

There was little to distinguish the delivery that stood ready for loading in the Port of Hamburg on Aug. 19 of last year. A container filled with bars of stainless steel from India was to be shipped on to Russia. Just another shipment. There didn't seem to be anything out of place.

AFP

More and more radioactive steel, much of it from India, has been discovered in Germany in recent months.

But when the customs officers carried out a routine check on the container they were in for quite a surprise. Their radiometers indicated unusually high levels of radiation. They measured a level of 71 microsieverts per hour, a level that in 24 hours would exceed the amount permitted for an entire year.

The officials reacted swiftly. They ordered that the container be put back on the ship immediately and be sent back to India.

This was, however, no isolated case. For months, similar cases have been found across Germany, all involving bits of metal contaminated with radioactive cobalt. And most of them come from the same source: three steelworks in India, in particular a company called Vipras Casting, based in Mumbai. Germany's environmental authorities are alarmed.

Safe Disposal?

On Feb. 2, Environment Minister Sigmar Gabriel was informed about four finds: In Lower Saxony officials had discovered contaminated parts and steel bars in two different locations. In Saarland investigators discovered radioactive steel shavings at a junkyard. And in Rhineland-Palatinate they found contaminated valves.

An internal memo in the Environment Ministry that was sent to Germany's states on Feb. 6 listed 15 "incidents of contaminated steel," in 12 states. The list included radioactive bars, steel cables, chippings and valve housings. The list of findings has since risen to 19.

Since last August, a total of 150 tons of contaminated metal has been seized. Some of it has been sent back to India. The rest is being stored by the companies that discovered the radioactivity, pending a decision on how to safely dispose of the material.

The situation is a novelty in Germany. Never before have officials had to deal with so much radioactive material in transit. Last week, Gabriel announced soberly that "radioactive steel products had been found in several federal states." Internally, though, his ministry officials have described the situation as dramatic. The problem is said to have "huge dimensions," according to sources.

Some of the metal had so far exceeded the limit of 10 becquerel per gram that it had to be confiscated immediately. Of the 60 tons of contaminated metal found in December at companies in Rhineland-Palatinate, Bavaria, Baden Württemberg and North Rhine-Westphalia, five tons had levels of up to 33 becquerel of radiation per gram. They were handed over to the Gesellschaft für Nuklear Service (GNS), a company that organizes the storage of waste from nuclear power stations and its transport.

Radioactive Isotope Cobalt 60

More than 500 elevator buttons, which came to Berlin from France, showed radioactivity levels of 270 becquerel per gram. The buttons have since been replaced. A component found at a company in Mecklenburg-Western Pomerania and tested on Jan. 19 radiated an astounding 600 becquerel per gram.

Government inspectors initially reached the conclusion that the radiation discovered did not pose "a danger to the population or to the environment." Other experts disagree: "In some of the cases, the levels of radiation would represent a risk if one were to spend a lengthy amount of time near the material," says Mathias Steinhoff, an expert for nuclear safety at the Institute for Applied Ecology in Darmstadt.

An expert at the Federal Office for Radiation Protection, who did not wished to be named, agreed, telling SPIEGEL: "Some of the levels are so high, that one should not stay in contact with these things for long."

Just how the radioactive isotope cobalt 60, which can be found in nuclear power stations or some medical technology, is finding its way into the Indian steel industry isn't completely clear. It may be that sources of radioactivity, from hospitals for example, are being thrown into blast furnaces along with other scrap. The resulting steel is then sold to to companies abroad.

The dangerous import from Asia shows the downside of globalization. Cheaper is not always better. Machine manufacturers and metal-working companies in Germany know that the cheaper the steel coming from a supplier is, the more likely it is that a high proportion of the metal is from India.

In addressing the problem, officials at both the federal and state level, along with representatives of the metallurgy branch, have all struck a reassuring tone. Behind closed doors, however, authorities are deeply unsettled. A crisis meeting is scheduled for this week in Berlin -- the second to focus on the issue. Environment Minister Gabriel is demanding proposals from both his own staff and from industry as to how the import of contaminated metal can be prevented in the future.

An Expensive Prospect

Authorities noted that there is already a European Union directive designed to prevent the import of radioactive materials. Enforcement, however, apparently remains problematic.

Blanket protection can only be achieved with strict controls in Asian steel mills and harbors. Gabriel has already asked for help from India in this regard. In the short term, however, the only thing that can be done is an enormous increase in the number of checks at the borders of the EU. And that is an expensive prospect.

German companies now worry that the contamination could have costly consequences. They are concerned that they might lose customers were they to deliver contaminated stainless steel. In addition, the costs of safe disposal could be as high as thousands of euros per ton of metal.

The true dimensions of the cobalt problem in Germany remain unknown. "I would be surprised were there not a larger number of cases to come," said a radiation expert from the southern German state of Baden Württemberg. The expert says that Gabriel's warning will likely now motivate a number of companies to take radiation measurements -- which will likely result in more unpleasant finds.

That, at least, was the experience of one company manager in Baden Württemberg. After he heard about other such incidents of contamination, he took measurements in his own factory. Shortly thereafter, he contacted the inspectors' office. They confirmed his discovery: cobalt 60.