

Apparently skyrocketing mercury emissions from a Bulgarian lignite plant reveal the operator may have underestimated the amount of toxic substances they pumped into the air for years.

The latest European industrial pollution data show mercury emissions from the Bulgarian power plant Maritsa East 2 increased seven-fold between 2016 and 2017 - the last year for which data is available. Mercury emissions were never reported for the previous years. Such an abrupt increase is likely to be due to tightening EU reporting requirements, which oblige operators to monitor and declare the actual amount of emissions instead of just providing an estimation.

Across Europe coal burning is the single biggest source of mercury pollution entering the air. It is often carried over long distances and finds its way into the food-chain through bioaccumulation in large fish. Mercury is a dangerous neurotoxin which damages human health and can destroy lives. Europe has signed up to the Minamata Convention to limit mercury emissions from human sources, and the EU's Mercury Regulation was adopted in 2017.

Part of south-central Bulgaria's Maritsa East Energy Complex, Maritsa East 2 is the largest thermal power plant in the Balkans. It burns lignite produced by the state-owned Maritsa East Mines. Often referred to as "brown coal", lignite is the cheapest form of coal, as well as the dirtiest: because of its composition and its low energetic value, burning lignite in coal power plants creates more air pollutant emissions than hard coal per megawatt generated. Christian Schaible, EEB Industrial Production Manager, told META:

"Not only is this lignite plant pumping enormous amounts of poisonous mercury into the air we breathe, they have also failed to declare their real emissions as required by EU laws." Schaible also highlighted how local authorities, on top of overseeing a breach in reporting obligations, has granted a 'derogation' that allows mercury to be a rate 30-times higher than the agreed 1 microgram level due to be met by 2021.

"Considering the mercury phase out obligation under EU water protection laws and the Minamata Convention, this is a disgraceful attitude by an authority in charge of protecting public interests."

Besides the inconsistent reporting on mercury emissions, Schaible points out that the lack of data on dust emissions would constitute a legal breach because of a requirement in EU law for continuous pollution monitoring.

Thanks to the EU's Industrial Emissions Directive, coal plants have had to measure and report their mercury emissions at least once a year since 2016. However, even before its

entrance into force, operators were supposed to declare their emissions to the European Pollutant Release and Transfer Register (E-PRTR) if they exceeded a threshold of 10kg per year.

The numbers Maritsa East 2 has been reporting in 2016 and 2017 are respectively 11 times and 71 times higher than the threshold, which suggests they may have underestimated and hidden their mercury emissions for years.

The CO₂ emission trend reported by the company between 2010 and 2017 shows that during the years when no mercury emissions were declared the plant was actually running at a higher capacity. This means that their (non reported) mercury emissions during those years may have been even higher than now.

Charles Moore, Senior Energy & Policy Analyst at Sandbag, said:

“This is yet another example of pollution limits being too lax, and still being infringed. Once again, the coal industry is breaking the rules and putting their own profit before people’s health.”

Due to the sudden increase in reported emissions, Maritsa East 2 jumped from 41st to 3rd biggest emitter of mercury among Europe’s industrial installations, only topped by the giant Bełchatów plant and the Krakow TAMEH coal plant in Poland. However, in terms of operating power and size, the relative impact of the smaller Bulgarian plant could be even worse.

The very same Bełchatów hit the headlines last year, when META broke the story that mercury emission from Polish coal had jumped by more than 87.5% in just one year. EU data showed emissions from Bełchatów were eighteen times higher in 2016 than the previous year. A few weeks after the META story, Polish newspaper Gazeta Wyborcza suggested that mercury emissions for 2016 from Bełchatów and other Polish power plants – reported as an enormous 2.82 tonnes – could actually be even higher, suggesting the underreporting of mercury emissions in the coal industry is not something isolated to Bulgaria.

Bełchatów alone was found to emit more mercury to the environment than all Spanish industry combined, while German coal and lignite plants were responsible for 30% of all mercury emissions from industry in the EU in 2016 – more than Denmark, the Netherlands, Belgium and France combined.

However, Schaible points out that cutting mercury pollution is not just necessary to comply with EU laws and global obligations, it’s also very affordable: as numerous studies point to mercury abatement costs amounting to just 0.17-1% of the total generation costs, a EU wide reduction of 80% would actually be cheap for the operators to achieve. Schaible argues that

Off the record: How a Bulgarian coal plant hid its toxic mercury emissions

considering the enormous impact of mercury on our health and environment, it would be definitely worth it.

Source: meta.eeb.org