# Monitoring The Emission Level at 4 Stacks in Cao Bang Steel Complex

**TIME**
January 2024

**LOCATION**
Cao Bang province - VietNam

**CLIENT**
Cao Bang Steel Complex

## ABOUT THE CLIENT

Founded in 2006, Cao Bang Steel, a leading steel manufacturer in the Western Noth of Vietnam, operates on an expansive 80-hectare facility. Its state-of-the-art complex includes a sintering facility with a capacity of 348,400 tons of sintered iron ore annually, a blast furnace producing 219,275 tons of pig iron per year, and a steel refining furnace designed for 20 tons per batch. With a total plant capacity of 220,000 tons of steel billets per year, it anticipates an annual revenue of 62 Million USD/ year. It is committed to maintaining its leading steel production position in the region.

## THE CHALLENGE

The fugitive emissions (SO2, NOx, CO, Dust) from the steel plant were a huge caution for both the company staff and the nearby residents. Plus, with the strong push from the regulation of the Department of Natural Resources and Environment, Cao Bang Steel was in a position to immediately tackle the issue. Not only that, they also showed their strong need for a real-time and accurate platform to remotely monitor all the possible polluted air coming out from the stacks.

## THE SOLUTION

Four units of iMisff 7101(the plug-play stack emission monitoring system) were installed for 1 Iron Smelting Plant, 1 Sintering Plant, and 2 Steel Refining Plants to help the plant actively monitor the required parameters. Additionally, within the iLotusLand Platform, the engineers now can remotely monitor all the data being generated from all the stations in the control room effectively. Empowering the HSE team to better understand, detect, and troubleshoot the problem for regulatory compliance and process efficiency.

| Application | Continuous Stack Emission Monitoring System (CEMS) |
|---|---|
| **Number of stations** | **4** |
| **Measured parameters** | Flow, Temp, Pressure, O2, Dust, SO2, NOx, CO |
| **Instrument models** | **CODEL:** GCEM40, VCEM5100, DCEM2100<br>**Endress + Hauser:** Cerabar PMC21, TM131 |
| **Datalogger model** | Envidata 1801 |
| **Software model** | iLotusLand Platform for Environment (On-Cloud) |



## THE RESULT

"The platform makes our reporting work become much more accurate, faster, easier"
- Mr. Tho Nguyen - HSE team

The extensive installations at four plants ensure regulatory compliance, foster environmental responsibility, and enable real-time emission reduction. The system's data aids process optimization, transparent reporting enhances public relations, and contributes to improved air quality management, prioritizing health, safety for the staff and the surrounding local.

"iLotusLand is an environmental IoT company offering data-driven environmental monitoring solutions for better decision-making. With our plug-and-play stations, we monitor a wide range of parameters in Wastewater, Surface Water, Groundwater, Drinking Water, CEMS, AAQMS, etc. And iLotusLand data analytics platform delivers actionable insights for government, industries, and communities. Our commitment is to be a key player in fostering a sustainable future through intelligent environmental monitoring solutions and data science."