Air Protection in TŽ

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TŽ Bird’s View
History

- Establishment by Charles of Habsburg
- Railway Košice – Bohumín built
- Centralization of plants in Třinec
- Mining and Metallurgical Corporation
- First electrified rolling mill in the World
- Biggest Czech blast furnace
- WWII – annexation
- Nationalization
- BOF Steel Plant
- Joint stock company renewal
- Fully privatized

TŽ Highlights

🌱 Tradition since the establishment in 1839
🌱 Integrated steel company
   ❖ Coke Plant, Sinter Plant, BF, BOF, CCM, EAF, Rolling Mills, Auxiliary Plants
🌱 Annual production of 2.6 million tonnes of crude steel
🌱 Biggest Czech steel producer
🌱 Area of the premises is ca 400 ha
   ❖ Green is ca 40 % of this area
🌱 7000 TŽ employees / 15 000 TŽ – MS Group employees
Significant Subsidiaries of the TŽ–MS Group

- Energetika
- Kovárna VIVA
- Řetězárna
- HŽP
- Šroubárna
- Bohemia Rings
- SaS
- Slévárny
- Metalurgia
- D&D Drótáru ŽDB Drátovna
- VÚHŽ
Product Portfolio, Share of Volume 2017

Wire rod 42.8%
Bars 28.5%
Semis 11.2%
Rails 7.2%
Seamless tubes 4.1%
Drawn steel 4%
Wide steel 1.6%
Railway accessories 0.6%
Air Protection

- 108 sources of pollution within TŽ premises plus 34 in other TŽ plants
- Emission limits and caps are continuously fulfilled
- All TŽ facilities are at the BAT level without exceptions
- Třinec area – region with impaired air quality
- Decreasing the dust emissions is a priority
- The way to reduce emissions => INVESTMENTS
Environmental Investments

The total of CZK 9.4 billion invested in the environmental projects since privatization in 1996
Environmental Projects 2013 to 2015 I

- Re-construction of exhaustion of Teeming Halls at BF #4 and 6
- Secondary de-dusting of the BOF Plant
- De-dusting of nodes and fumes at the Sinter Plant #2
- Decreasing emissions at BF Charge Production Line
- De-dusting of multipurpose facility of steel plant sinter production
- De-dusting the workplace for ingots cutting
- Mobile de-dusting equipment
- Multipurpose de-dusting units
- De-dusting of coal pit at the Coke Plant
- De-dusting of tipplers #3 and 4
Environmental Projects 2013 to 2015 II

- De-dusting the Pellet Sorting Line
- Acquiring the universal sweeping car
- Decreasing fugitive emissions by mobile vacuum cleaners at Light Section and Wire Rod Mill
- Decreasing fugitive emissions at crushing line and slag keeping
- Decreasing fugitive emissions at Multipurpose Environmental Area
- Decreasing Fugitive Emissions at Iron Ore Belt Conveyor – Mist Visor
- De-dusting of tundish keeping area of CCM #1 and 2
- De-dusting of RH Vacuum Station #2
- Planting the insulation greenery
De-dusting of Blast Furnace Teeming Halls
De-dusting of Nodes and Fumes at the Sinter Plant #2
Secondary De-dusting of the BOF Hall
Secondary De-dusting of the BOF Hall

Before

After
De-dusting the Workplace for Ingots Cutting

Covered cabin with exhaustion for cutting with oxygen lance equipped with cloth filter

Before

After
De-dusting of Tipplers #3 and 4
De-dusting of Pellet Sorting Facility

Before

After
Decreasing Fugitive Emissions at Iron Ore Belt Conveyor – Mist Visor

Before

After
De-dusting of Coal Pit at Coke Plant
De-dusting of Sinter Stackers
Cleaning Wagon for Sinter Plant
Mist Cannons at the Secondary Raw Materials Plant
Insulation Greenery
Environmental Projects 2016 to 2018

- De-sulphuring of fumes at Sinter Plant #2
- Dosing of active coal at Sinter Plants #1 and 2
- Modernization and reconstruction of the Coke Oven Battery #11
- De-sulphuring of fumes at Sinter Plant #1
- Building of the Hot Blast Stove #64
- Acquiring the Water car – Secondary Raw Materials Plant
- Filtering station at slag milling facility
- Central exhaustion at Sinter Plants, Blast Furnaces, and Billet Mill
Dust Emissions in TŽ

- Solid emissions (t/year)
- Steel production (kt/year)

Environmental Projects under Preparation

- Renewal of Hot Blast Stoves at BF #6
- De-dusting of industrial pickers of chargé for production of blast furnace and steel plant sinter
- De-dusting of daily stocks for blast furnaces
Conclusions

- TŽ is aware of its corporate responsibility towards the region
- Effort to decrease the dustiness
- Decrease of solid pollutants by three quarters within 5 years
- All substantial sources of pollution are equipped with cloth filters
- Costs of new investments ca CZK 100 million annually
- Preparation of further environmental projects
- Voluntary agreement with Ministry of Environment and Regional Authority
Thank You for Your Attention