



TANK-HOUSE REFURBISHMENT

Severonickel Plant, Monchegorsk, Murmansk Region (Kola MMC)



Tank-House 1 saw refurbishment of buildings, equipment, and utility and ventilation systems. The project was completed in 2016. Tank-House 2 is to be transformed into an advanced, cost-efficient cathode nickel facility by introducing the technology of nickel electrowinning from chlorine dissolved tube furnace nickel powder.

Highlights

Tank-House 1

Capacity commissioning of	45 ktpa
CAPEX of ca.	RUB 0.8 bn
Project completed in 2016.	

Tank-House 2

Increasing the capacity from	120 ktpa to 145 ktpa of nickel
Increasing the nickel recovery rate for converter matte by	more than 1%
2017 CAPEX of ca.	RUB 7 bn (ca. USD 120 mln)
CAPEX outstanding of ca.	RUB 14 bn (ca. USD 236 mln)
Progress:	~40%

PROJECT SCHEDULE

- 2017**
42 electrolysis cells upgraded at Tank-House 2 to support chlorine leaching
- 2018**
Gradual capacity commissioning
- 2019**
Reaching the design capacity and performance targets



CONSTRUCTION OF A COPPER-NICKEL ORE CONCENTRATE SHIPMENT FACILITY

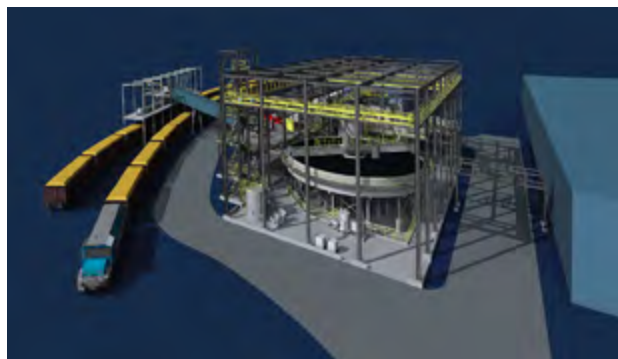
Zapolyarny, Murmansk Region (Kola MMC)

The new facility will enable the Company to split its copper-nickel concentrate into low-grade and high-grade.

No low-grade concentrate processing will lead to significant cuts in sulphur dioxide emissions in Nickel. By re-arranging shipments of low-grade concentrate from Kola MMC to a third-party processor, the Company will be able to decommission ore-thermal furnace No 3 in the smelting shop and cut the operating costs.

Highlights

Dried high-grade concentrate unit with a capacity	of 150 ktpa
2017 CAPEX of	RUB 0.8 bn (ca. USD 14 mln)
Outstanding CAPEX of	RUB 4 bn (ca. USD 71 mln)



PROJECT STATUS

- September 2017**
 - Contract for engineering and equipment supplies signed with Outotec;
 - Check-ups and surveys completed, preparation for utility systems dismantling and relocation in progress.
- Q4 2018**
Construction works of the project to be completed
- Q2 2019**
Output of key equipment