
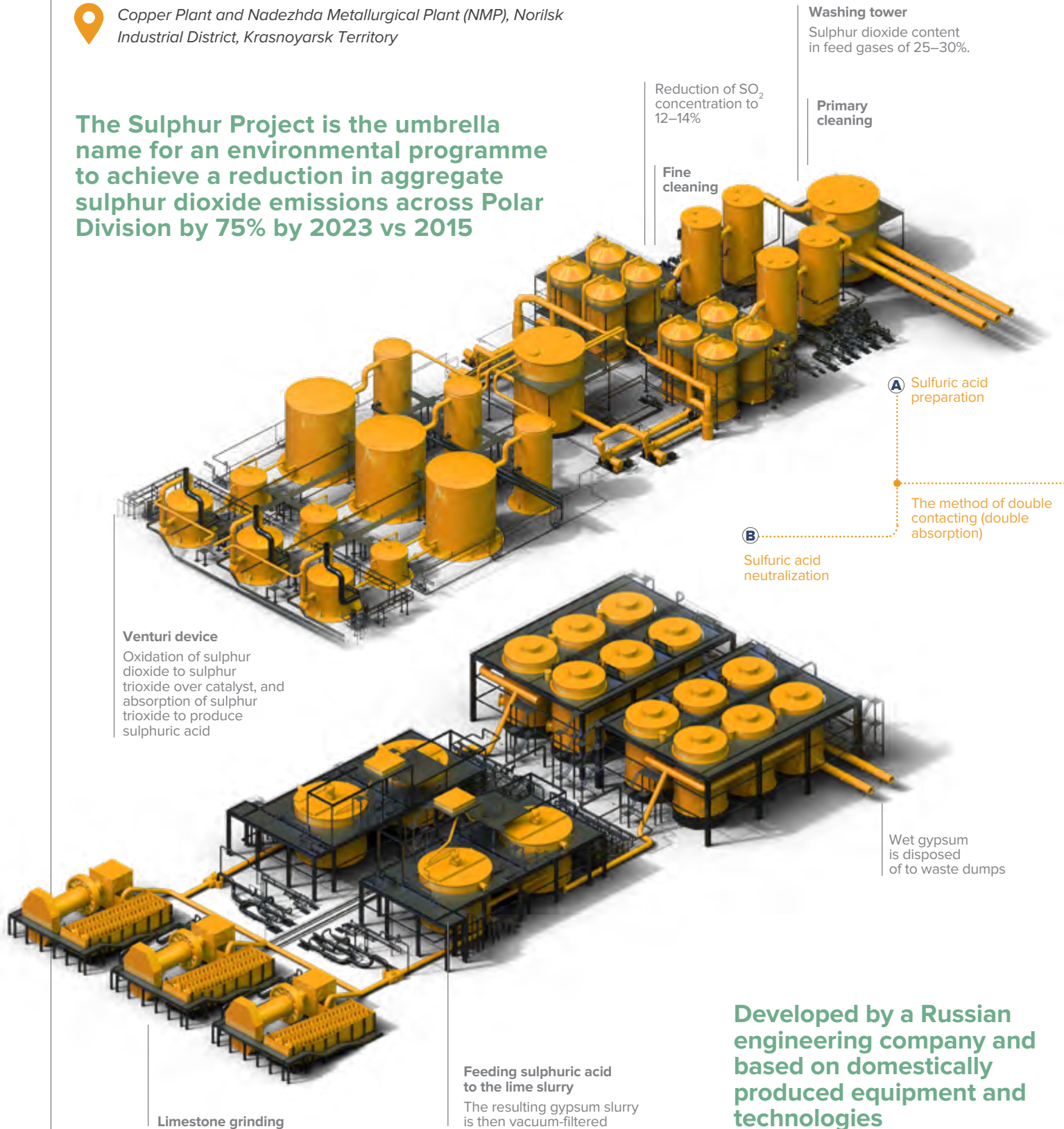




## SULPHUR PROJECT

 Copper Plant and Nadezhda Metallurgical Plant (NMP), Norilsk Industrial District, Krasnoyarsk Territory

**The Sulphur Project is the umbrella name for an environmental programme to achieve a reduction in aggregate sulphur dioxide emissions across Polar Division by 75% by 2023 vs 2015**



**Developed by a Russian engineering company and based on domestically produced equipment and technologies**

# 1

## Nadezhda Metallurgical Plant

Nadezhda Metallurgical Plant will have new facilities capturing sulphur-rich gases, while sulphur acid will be neutralised with natural limestone, with waste gypsum produced as a result. In addition, a revolutionary continuous copper matte converting unit will be built. Its emissions will also be used to produce sulphur acid.

# 2

## Copper Plant

Meanwhile, Copper Plant will see its elemental sulphur production capacities ramped up and the entire converter section shut down.

### Highlights

2017 CAPEX of ca.	RUB 2.2 bn (ca. USD 37 mln)
Less sulphur dioxide emissions	75% by 2023
Estimated project costs of ca. (according to the feasibility study)	USD 2.6 bn
Completion scheduled for	2022



**Video about the Sulphur Project**

### PROJECT STATUS

#### 2016–2017

##### Nadezhda Metallurgical Plant:

- design specifications developed and approved, feasibility study prepared and approved;
- first long lead equipment arrangements made;
- design documents developed under a contract with Kazgiprotsvetmet

##### Copper Plant:

- design specifications developed, feasibility study prepared;
- engineering surveys required to develop key technical solutions to bring project up to date completed.

**New volume of the Maximum Permissible Emission Rates for the period until 2023 approved. Project approved and presented at Strategy Day in November 2017.**

#### 2018 targets:

##### Nadezhda Metallurgical Plant:

- launching the Implementation stage to prepare engineering documents;
- obtaining the State Expert Review Board's approval for the project;
- start tender procedures for long lead equipment and select an EPC contractor for the project.

##### Copper Plant:

- Gipronickel Institute preparing engineering documents for non-standardised equipment;
- launching the Implementation stage to prepare engineering documents;
- arranging a tender to select a contractor for further implementation of the project, with on-site preparations.

##### Continuous copper converting facility:

- Obtaining the State Expert Review Board's approval for the NMP project; launching the Implementation stage to prepare engineering documents, start tender procedures for long lead equipment and select an EPC contractor for the NMP project.