

Environment case studies



WATER

NEW MINE WATER TREATMENT FACILITY LAUNCHED AT RASPADSKAYA MINE

Since 2012, Raspidskaya has been implementing a long-term water protection programme at its facilities, which entails building and reconstructing treatment facilities for mine, quarry, household and industrial wastewater to reduce the impact on water bodies. Over nine years, eight projects have been implemented with a total CAPEX of more than US\$20 million.



New mine water treatment facility at Raspidskaya mine

In 2019, the modernisation of mine water treatment facilities at the Raspidskaya mine was completed, doubling the treatment capacity, as well as reducing the discharge of suspended solids by 62% and of oil by 65%. Most of the treated water is now reused for the needs of the mine and the processing plant, while the remaining water is discharged into the river in accordance with all environmental requirements.

Overall, from 2020 to 2024, another six projects will be implemented with a total CAPEX of more than US\$20 million and the launch of three more wastewater treatment plants is planned in 2020.

The modernisation of mine water treatment facilities at the Raspidskaya mine reducing the discharge of suspended solids by

62%

AIR

UPGRADE OF ELECTROSTATIC PRECIPITATORS ON BOILER NO. 8 COMPLETE AT WEST SIBERIAN THERMAL POWER PLANT

At West Siberian Thermal Power Plant, ash and soot are formed when burning solid fuel. The previous air treatment equipment did not meet new environmental standards. In 2015, the electrostatic precipitators at the began to be gradually upgraded. Their principle of operation is simple: under the influence of an electromagnetic field, ash and soot settle on special electrodes, are shaken off and fall into a hopper.



New electrostatic precipitators at West Siberian Thermal Power Plant

Over 2015–18, the programme implementation helped to reduce annual emissions by 8.2kt. The filter upgrade on boiler No. 8 has made it possible to reduce annual atmospheric emissions by more than 2.9 kt. The last project under the programme is upgrading the filters on boiler No. 10, which will be completed in 2020.

BIODIVERSITY



EVRAZ continues to work together with the municipal administrations of the cities where it operates to organise environmental and social campaigns involving volunteers from among the Group's employees and their families. For example, as part of the environmental campaigns in 2019, a total of 920 trees were planted in parks and squares, including as part of the "Second Life to Trees" initiative, which seeks to transplant young trees from sites where mining will be carried out into city parks.

Other events include the "Environmental Saturday" clean-up days, "Clean Games" environmental quest, and "Clean Shore" and "Live Spring" initiatives. These efforts help to unite all EVRAZ employees and family members, as well as ordinary people who care about nature in the cities where the Group operates.

In 2019, work continued to reclaim old Tailing Storage Facility No. 2 at EVRAZ ZSMK. During the reporting period, 64,800 trees were planted at the reclaimed site.

As part of a programme to restore water bioresources, the Group's enterprises released more than 379,000 young fish into local rivers and lakes.

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trees
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during the reporting period



AWARDS

In 2019, EVRAZ NMTK won the award for "Most environmentally responsible enterprise in the field of ferrous metallurgy" at the XV annual "Leader of Environmental Activities in Russia - 2019" competition.

EVRAZ ZSMK won the annual regional "Ecoleader" contest. During the official closing ceremony at the Kemerovo region administration, the plant received the award for the "Enterprise" category.



Outlook for 2020

In 2020 the Group plans to review and update its Environmental strategy taking into consideration all challenges that the company face now and will face in the nearest future, including the climate risks and other issues related with stakeholders' expectations.

As the key priority the Group set implementation of its commitments within the National Project "Clean Air" and achieving the National Environmental Targets for air emission reduction in Novokuznetsk and Nizhny Tagil.

EVRAZ Air Emission reduction programme includes:

EVRAZ ZSMK:

1. Coke gas cooling system upgrade. 2020 task - to start construction works.
2. Off Gas Desulfurisation Installation. 2020 task - to complete design stage
3. Electric precipitator restoration (HPS). 2020 task - to upgrade the filters on boiler No. 10

EVRAZ NMTK:

1. Coke gas direction to by-product recovery plant № 3. 2020 task - to start construction works
2. Off-gas cleaning units efficiency upgrade. 2020 task - to complete upgrade of gas cleaning units at oxygen converter shop
3. New off-gas cleaning installation at blast furnace #6. 2020 task - to complete construction

EVRAZ Vanady-Tula:

Kiln off gas system upgrade. 2020 task - to complete commissioning of the new off gas cleaning unit.

EVRAZ North America:

Regina Reheat Furnace NOx Reduction & Upgrade. 2020 task - to complete installation of low NOx burners.

Water management programmes launched in the previous year will be continued at EVRAZ operations: EVRAZ ZSMK, EVRAZ NMTK, Rospadskaya and EVRAZ Vanady-Tula.