

PRODUCTION WASTE

The Company reuses most of its industrial waste as ca. 96% of the waste are class 5, i.e. non-hazardous waste. This is mostly waste from the mining and smelting operations, including rock and overburden, tailings, and metallurgical slags. Ca. 70.4% of all waste generated across the Company's operations in 2018 was reused, with the rest of waste disposed of at special facilities or transferred to special contractors for use and treatment. Waste generated from the extraction of ore mineral resources is used in backfilling of mined-out areas and pits, road filling, and strengthening of tailings pits.

A new tailings pit was commissioned at Talnakh Concentrator in 2017, allowing to dispose of 7 mt of tailings. The facility was built using the most advanced technologies to reduce environmental impact of the waste.

In 2018, as part of hot commissioning testing under the comprehensive

project to upgrade and retrofit Talnakh Concentrator (first tailings pit construction stage) to increase its total ore capacity to 16 mtpa, the Company prepared the tailings pit floor for the safe operation of hydraulic structures, including the construction of barriers and an initial slope to ensure the safe operation of free-flow structures. This helped dispose of 7,311.532 kt of tailings.

The Company currently operates four tailings pits: Lebyazhye, tailings pits of Nadezhda Metallurgical Plant, Talnakh Concentrator, and Kola MMC. A tailings pit of Bystrinsky GOK has also been built and is being currently commissioned. The Company conducts regular monitoring of the environmental conditions at tailings pits and within the area of their environmental impact for the purpose of observation, assessment and forecast of environmental changes as well as for the prevention and mitigation of adverse environmental impact.

The Company's waste management efforts are focused on the following:

- development of waste disposal sites to reduce human impact on the environment;
- waste reuse maximisation.

Waste generation by hazard class (kt)

Hazard class	2016	2017	2018
5	32,118	30,722	29,517
4	1,114	1,190	1,191
3	30	13	15
2	5.8	2.4	1.1
1	0.1	0.1	0.1
Total	33,268	31,927	30,724