

# HEALTH AND SAFETY

## STRATEGIC GOALS

**Continuous reduction in injury rates**



Decrease in lost time injuries to the level of 2013

**Zero fatalities**



Zero-tolerance policy on work-related fatalities

The health and safety of our people as well as mitigation of ore mining and processing risks is a top priority in Nornickel's operations.

## OCCUPATIONAL HEALTH KPIS

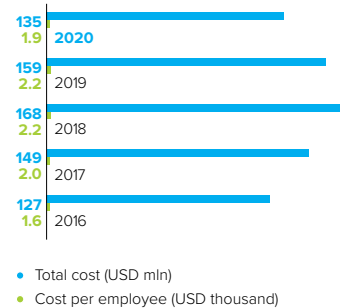
### 20% OF KPIS

- Linked to total recordable injuries (TRI)

### 12% TO 28% OF KPIS

- In KPI scorecards of heads of production units.
- A failure to prevent a fatality blocks them from receiving a performance bonus.

### EXPENSES FOR IMPROVING WORKING CONDITIONS AND LABOR PROTECTION



## CERTIFICATION

In 2020, Nornickel approved and implemented the new Regulations on the Occupational Health Management System compliant with ISO 45001:2018 in line with its plans. As part of the preparations for certification of the existing occupational health

management system to ISO 45001:2018, the Company passed an internal pre-certification audit and an external certification audit. As a result of the certification audit, the Company was certified to ISO 45001:2018.

At end-2020, all key production enterprises of the Group had health and safety certification:

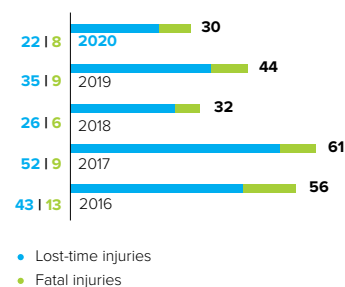
- MMC Norilsk Nickel to ISO 45001
- Kola MMC to OHSAS 18001
- Norilsk Nickel Harjavalta to ISO 45001

## INJURY RATES

In 2020, the lost time injury frequency rate (LTIFR) decreased by 34% to 0.21 (0.32 in 2019), hitting all-time lows within the observation period while remaining below the industry average. Due to measures taken to comply with basic industrial safety standards and improve the safety standards management system, the number of lost time injuries decreased by 32% (from 44 to 30 incidents) while

the number of fatalities decreased by 11% (from nine to eight incidents). All fatalities were reported to the Board of Directors and thoroughly investigated to avoid similar injuries in the future. Nornickel's management views safety and zero work-related fatalities as its key strategic priorities and continues dedicated programmes to prevent and avoid accidents and work-related injuries.

### WORK-RELATED INJURIES (PEOPLE)



### INJURY RATES

Indicator	2016	2017	2018	2019	2020
FIFR	0.11	0.08	0.05	0.08	0.08
LTIFR	0.35	0.44	0.23	0.32	0.21
Contractors' work-related injuries	10	16	19	9	15
Including fatalities	7	1	2	1	3

### MAIN CAUSES OF FATALITIES

Indicator	2016	2017	2018	2019	2020
Fall from height	3	0	1	1	0
Falling objects	0	1	0	0	2
Moving objects/parts	1	1	0	2	1
Rock fall	2	0	1	0	2
Road traffic accident (RTA)	4	0	1	0	0
Electrocution	2	1	0	0	3
Exposure to extreme temperatures	1	0	0	1	0
Explosion	0	4	0	1	0
Other	0	2	3	4	0
<b>Total</b>	<b>13</b>	<b>9</b>	<b>6</b>	<b>9</b>	<b>8</b>

## RESPONSIBILITY AND ACCOUNTABILITY

The Audit and Sustainable Development Committee deals with industrial safety matters. The Committee reviews management reports on industrial safety performance every quarter, with management participating in the Committee's meetings required to provide detailed account of causes of injuries, measures taken to prevent similar injuries occurring in the future and disciplinary actions taken against the employees at fault.

Remuneration payable to all heads of production units is linked to their industrial safety performance. They are personally responsible for the life and health of each of their subordinates. In addition, team KPIs for all employees include injury rate reduction across the Group enterprises (20% of team KPIs). Industrial safety targets weigh between 12% and 28% of the overall KPI (including individual KPIs). A failure to prevent

a fatality reduces to zero the health and safety indicator in the KPI scorecard (injury rate reduction), hence the amount of remuneration is also reduced.

The Company also has a dedicated Health, Safety and Environment Committee, which is focused on improving efficiency and accountability in industrial safety. The Committee meets quarterly at the Group's various production sites of branches and Russian companies of the Group to discuss improvements to industrial safety management, including:

- analysis of the circumstances and causes of severe and fatal work-related injuries
- status of measures planned and implemented to prevent similar injuries across the Company's enterprises
- programmes of organisational and technical measures to improve health and safety.

### MANAGEMENT'S COMMITMENT AND LEADERSHIP

In 2020, the Group adopted a corporate standard for the management's health and safety commitment. In line with the standard, managers prepare annual plans of personal health and safety commitments, which include personal and group meetings with employees at production units, participation in audits of the occupational health management system, as well as Engineers and Technicians Days conducted with line managers (pre-shift briefings, workplace visits, discussions and recommendations to managers). Performance against personal commitments is included in each manager's individual KPIs.

## ENGAGEMENT WITH ORGANISATIONS REPRESENTING

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The Group's collective bargaining agreements have health and safety provisions. At the end of 2018,

companies of the copper and nickel and supporting industries developed and signed an interregional cross-industry agreement setting out, among other things, the obligations and commitments of the parties in relation to health and safety.

The Company and most of its subsidiaries have joint health and safety committees made up of management, employee and trade union representatives.

## CONTRACTORS

As all maintenance and construction operations at the existing production facilities are classified as high-hazard, contractor personnel is required to attend induction and target briefings on occupational health prior to the commencement of any work. Work permits also include occupational health requirements to be observed during work preparation and performance.

A special standard setting requirements for contractors at the contractor selection phase was developed and implemented in 2018 to better monitor and promote the safety of work performed by contractors on the sites of Nornickel enterprises. In 2020, Nornickel consistently monitored compliance with the standard, including through joint inspections of compliance with

work safety requirements and meetings of health and safety councils (committees) involving contractor representatives. Contractors failing to comply with health and safety requirements were fined for a total of more than RUB 20 million (USD 277 thousand) in 2020.

## CORPORATE STANDARDS AND SAFETY MEASURES

Nornickel's production enterprises have process-, job- and operation-specific regulations and guidelines in place containing dedicated industrial safety sections.

Nornickel has corporate industrial safety standards that apply to both the Group's employees and contractors' personnel. The Group's production units are regularly audited for compliance with applicable industrial safety requirements. A total of 25 audits took place in 2020 in accordance with the approved schedule, with production site managers and their deputies also involved in the audits.

As part of the Implementation of the Industrial Safety Management System programme, in 2020, Nornickel continued rolling out its Control, Management, Safety Automated System (CMS AS).

CMS AS is a SAP EHSM-based information system designed to collect, process, record and analyse health and safety data.

During the year, CMS AS was launched at Norilsk Support Complex, NTEK, Norilskpromtransport, Taimyr Fuel Company, and Polar and Murmansk Transport Divisions of PJSC MMC NORILSK NICKEL. Nornickel plans to continue rolling out CMS AS across the Group's remaining subsidiaries in 2021.

Nornickel's Technology Breakthrough programme aims to improve planning processes, automated day-to-day monitoring and production safety at all of the Company's Operations units covering all production operations, from ore mining to metals production. In 2020, on completing the first basic phase of the programme, the Company:

- Introduced and launched 44 information systems with 3,195 active users
- equipped all underground mines with positioning and communication systems, created a powerful system to transmit virtually unlimited data from the surface to underground

and back – in other words, built the basic infrastructure for managing mining operations

- collected and digitised all equipment data sheets, started developing process sheets for the most critical equipment, which allows effective production asset management via a unified system
- ensured real time remote control over 80% of operations (almost all key processes) from control centres at the Company's Polar Division and Kola MMC.

Further development in 2020–2024 will be guided by the Technology Breakthrough 2.0 programme (second phase), which includes 11 programmes aimed at further improvement, production excellence and safety.

As part of implementing the Concept of Rock Bolting Systems Improvement at Nornickel Mines (launched in 2017) and to promote mining safety, in particular by minimising personnel access to unsupported parts of workings (reducing the risk of rock fall), the Company held following activities in 2020:

- completed a feasibility study and ordered two roof bolters for Kola MMC
- ordered 44 units of self-propelled bolters, delivered to the Polar Division, including 3 for the Komsomolsky, Mayak and Oktyabrsky Mines using new types of binder (two-component polymer resin) and rock bolting (composite hollow self-drilling anchor bolts) (second phase of equipment procurement)
- changed standard diameters of steel-polymer anchor bolts
- drilled production wells (one per mine) at the Oktyabrsky Mine (with the acceptance of construction concrete and grouting currently underway) and the Komsomolsky Mine (perforating)

- tested a prospective type of support – yielding tendon straps, which are much less difficult to install than combined arch support
- tested mechanical wet mix shotcreting and steel fibre-reinforced shotcreting methods, which significantly increase the durability of shotcrete reinforcement
- fully switched from anchor-shotcrete to mechanical steel-polymer supports for the capital construction of underground workings by Polar Construction Company.

### BUILDINGS AND STRUCTURES MONITORING SYSTEM PROJECT

The project aims to ensure safe operating conditions for buildings and structures through timely identifying loss of bearing capacity of soil, piles and foundations through geotechnical and satellite monitoring subject to the results of geological surveys.

In 2020, the following initiatives were launched under the project:

- Development of a targeted business process for supervising and monitoring the operating conditions of buildings and structures in the Norilsk Industrial District
- Primary digitisation of technical documentation for buildings and structures
- Implementation of Stage 1 of the monitoring well drilling programme
- Inspection of pile foundations

Information support systems for geotechnical monitoring (163 facilities) are scheduled for piloting by the end of 2021.



## EMPLOYEE TRAINING

The Company is committed to ensuring its people have all the necessary knowledge, skills and capabilities to perform their duties in a safe and responsible manner.

Training begins immediately after an employee is hired with an induction safety briefing and subsequent on-the-job briefings. Briefings are then repeated

regularly in accordance with the existing corporate programmes. There are also interactive training courses for employees in key positions.

In 2020, 9,500 employees attended online health and safety training sessions. The online courses are created by in-house resources. The Company produced 58 distance learning industrial

safety courses, 33 videos and seven multimedia briefings for blue-collar professions. The Company leverages internal expertise and today's formats to quickly produce new high-quality interactive training courses to accomplish its business tasks.

## PROVISION OF PERSONAL PROTECTIVE EQUIPMENT

Employees are provided with safety clothing, footwear and other personal protective equipment to mitigate the adverse impact of work-related harm and hazards. Employees working in contaminated conditions are

provided with free-of-charge wash-off and decontaminating agents. In 2020, the Nornickel purchased personal protective equipment worth over RUB 3 billion (USD 42 million).

Workers with on-site production experience of less than three years wear special red helmets with the word "Caution" on them and protective clothing with "Caution" badges that make them stand out.

## INDUSTRIAL SAFETY COMPLIANCE

The Company has a zero-tolerance approach to unsafe behaviours, as prevention of safety breaches plays the most important role in reducing injuries and accidents.

Nornickel has put in place an industrial safety compliance monitoring system featuring multi-tier control with ad-hoc, targeted and comprehensive industrial safety inspections. The first tier control involves the line manager

(aided by designated members of the occupational health team) and focuses primarily on workplace set-up. The second and higher control tiers involve special industrial safety commissions with representatives of management and employees.

In addition to the above prevention and control initiatives, the Company regularly conducts behavioural audits

in accordance with the approved schedule. The prevention and control team has identified and disciplined over 10 thousand non-compliant employees, including by partially or completely stripping them of their bonuses.

## PREVENTION OF OCCUPATIONAL DISEASES

The Company promotes disease prevention and healthy lifestyle amongst its staff to minimise the risk of occupational diseases, with management focused on communicating to all employees the importance of complying with safety requirements and protecting one's own health. Nornickel also seeks to introduce meaningful occupational health initiatives taking into account both workplace and individual risk factors.

The Company offers its staff regular disease prevention screening in line with recommendations from the healthcare authorities. Employees undergo

compulsory pre-employment, regular and ad-hoc medical examinations at the Company's expense. Special medical examinations at occupational pathology centres are provided to employees exposed to hazardous substances.

Production enterprises have dedicated medical aid posts to perform pre-shift health checks and provide medical assistance on request during working hours.

Depending on their respective workplace hazards, employees are provided free-of-charge with personal protective

equipment (PPE), including respiratory protection (respirators, gas masks), hearing protection (earmuffs, earplugs), eye protection (glasses/goggles with UV filters, visors), skin protection (gloves, protective and regenerative creams, protective outerwear).

Employees working in harmful and hazardous conditions receive free food, milk and other nutritional products for therapeutic and preventive purposes to promote health and prevent occupational diseases.



### OCCUPATIONAL DISEASES

Indicator	2016	2017	2018	2019	2020
Total	339	361	318	290	235

## INDEPENDENT SYSTEM ASSESSMENT

Since 2014, we engage an independent company to conduct out an annual assessment of our occupational health management system and safety culture to identify focus areas for further improvement of corporate occupational health management, and mitigate risks of injuries and accidents at the Group's major entities. Since 2014 the stable improvements in the safety culture level have been driven by increased employee engagement on health and safety matters and leadership demonstrated by senior management of entities as well as improved knowledge of risk assessment and management.

